

Challenges arising from alternative investment management

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Alternative investment management differs from traditional asset management in a number of respects. First, it is distinct in terms of both its targets – aiming to achieve an absolute performance, regardless of trends in underlying markets – and its strategies, in particular exploiting inefficiencies in the valuation of financial assets via opportunistic and discretionary positions. It also differs in terms of the financial techniques implemented, e.g. the extensive use made of leverage, derivatives and short selling, and the specific investment vehicles used (ad hoc structures such as hedge funds that are not bound by ordinary law in the way traditional investment vehicles are). These particularities, alongside the fact that the alternative investment universe is somewhat opaque, make it difficult to measure a fund's risks or a fund manager's performance. Specific measurement tools are therefore required, which differ from those commonly used in traditional asset management.

Over the past few years, the alternative investment management, a diverse and rapidly-evolving universe, has enjoyed a spectacular development, which is illustrated by the sharp rise in the amounts under management and the proliferation of investment vehicles offered to an increasingly broad investor base. In view of the specific nature of alternative fund managers' modus operandi, the flourishing of the alternative investment industry raises questions as to its implications in terms of financial stability. It also raises new issues regarding the division of roles between market participants and supervisory authorities in the organisation and monitoring of this asset management sector.

Over the past few years the alternative investment industry has developed spectacularly, attracting so much investor interest that it appears at times to have taken on the proportions of a “fad”. This article sets out to chart the development of this phenomenon. We will start out by attempting to define the broad outlines and trends of this rapidly evolving industry. We will then try to show

why this style of management requires specific risk analysis techniques and performance indicators. This will enable us to assess the impact of alternative investment management on financial market dynamics, and identify the conditions under which these management strategies might “usefully” contribute to the functioning of financial markets and become a lasting feature in the world of asset management.

1| The universe of alternative investment management

Given the diversity and evolving nature of this industry, it is not easy to define what is commonly understood by “alternative investment management”. Before analysing the trends currently characterising this universe, we will attempt to determine its contours.

1|1 An attempted definition

Alternative investment management can be defined in terms of how it differs from “traditional” asset management: the targets set, the instruments and techniques used, and the investment strategies implemented.

Investment targets

In “traditional” asset management, as practised by mutual funds and institutional fund managers, the investment rationale is typically a relative performance approach: investments under management in this form are essentially, if not exclusively, allocated to pre-specified financial asset classes, at a medium- to long-term horizon. Consequently, the performance of a portfolio managed in this way, and the risk to which it is exposed, will depend primarily on the trends of the underlying markets and, secondly, on the fund manager's ability to allocate assets appropriately. This performance will be measured against an overall or sectoral benchmark index, considered to be representative of the markets in which the assets are invested (money markets, bond markets, equity markets, domestic or international markets). The fund manager aims to achieve a performance that is either as close as possible to that of the benchmark index (index-linked or passive management) or to beat this index (active management).

Conversely, in alternative investment management, an absolute positive performance target is set, *i.e.* a performance uncorrelated with that of the underlying asset classes. In principle, managers set out to achieve a performance that is (at least partially) independent of the intrinsic performance of financial markets: investors forgo structural returns associated with “long-only” investment positions (the risk premium adjusted for the level of market exposure – beta ¹), in exchange for protection against adverse movements in markets (directional risk). Investors are thus directly exposed to the quality of the fund manager ².

While the traditional asset management approach is based on efficient market and optimal market portfolio hypotheses, the alternative investment approach looks for inefficiencies in financial markets with a view to exploiting them: the alternative investment approach aims to capture alpha rather than beta, *i.e.* to outperform the market.

Techniques and instruments

Alternative investment management, like traditional asset management, uses conventional financial instruments such as money market paper, bonds and equities. However, it also uses less conventional, and generally less liquid, categories of assets (unlisted securities, commodities, or even real estate assets). Furthermore it employs, in the usual manner, and sometimes in significant proportions, a complete range of outright and conditional derivatives, as well as specific financial techniques such as short selling. While leverage ³ is not specific to alternative investment, nor systematically used ⁴, it is part of alternative fund managers' array of everyday techniques.

¹ Broadly speaking, beta is the measure of the volatility of an individual (portfolio) security compared with that of the market as a whole, *i.e.* its systematic risk. Alpha represents the excess returns on an individual (portfolio) security, which is not explained by the model. For a more detailed definition, see Box 1 below.

² Hence, the performance structure of hedge fund managers is directly linked to their performance: on average, on the basis of a number of market sources, we can estimate that fund managers receive almost 18% of profits generated, as well as management fees of 1% to 1.5% of the amount of assets under management.

³ In this paper, we define leverage as the use of borrowed resources or the use of the above-mentioned financial techniques and instruments with a view to increasing the size of the positions taken.

⁴ In particular when exploiting minor arbitrage opportunities.

Strategies

Alternative funds implement a wide range of investment strategies. While these strategies are flexible, and many different combinations exist, we can basically identify four major investment styles, of which there are numerous variations.

- *Long/short strategies* involve taking simultaneously short and long positions in different securities, some considered undervalued and others overvalued on the basis of a fundamental or technical analysis, and then exploiting this market anomaly. The overall position can be directional – skewed in favour of one or other of the positions, or non-directional (market neutral). In the latter case, the profit generated is not dependent on the performance of the market as a whole (both securities may appreciate or depreciate simultaneously) but solely on the relative performance of each of the positions.
- *Arbitrage⁵ and relative value strategies* are focused on detecting and exploiting perceived anomalies in the relative pricing of financial assets or in the statistical relationships linking different assets. On the basis of this principle, arbitrage strategies between different segments of the yield curve or bond markets exploit yield differentials and, in particular, the mean return tendency of these spreads. Also of note are convertible securities arbitrages, which aim to exploit potential pricing differences between the security itself and its different components⁶ or take position in the underlying factors that determine the value of these particular securities. Another technique employed is “capital structure arbitrage”, whose objective is to exploit any differences in the pricing of an issuer’s liabilities (between its debts according to their ranking, or between debt and equity securities). As different as they may be, these strategies share one common feature: the intensive use of quantitative techniques and sophisticated mathematical modelling to identify arbitrage opportunities. The latter are systematically exploited by the taking of both long positions and short selling. Given that arbitrage opportunities are often minor, the positions taken by these funds are frequently highly leveraged.
- *Event-driven and special situation strategies* can be defined as positions taken on the developments of a situation of a particular company, or on the probability of the occurrence of a particular event in the life of a company. Some funds, sometimes known as “vulture funds”, specialise in the debt of restructuring companies (distressed debt), which is often undervalued due to the fact that many investors find it impossible to hold this type of paper in their portfolio. These funds may also specialise in merger and acquisition (M&A) operations, which entails taking positions in the securities of the target company, and where appropriate taking an opposite position in the securities of the company initiating the operation.
- *Directional strategies and tactical approaches* differ considerably from the theoretical framework described above to outline the principles of alternative investment management. Here, positions are taken that either follow a market trend or “lean against the wind”, depending on whether the fund manager expects the trend to continue or to turn around. By definition, these positions are unhedged. Implemented by “global macro” funds, these strategies are not based on a technical financial market approach, but rather on a financial and macroeconomic analysis of the situation of a country, sector of activity or economic area. Trading funds, “market timing” and “trend followers” funds, futures funds and Commodity Trading Advisers implement these investment strategies. They are closer to conventional “speculative” position-taking than to other alternative investment strategies that take advantage of valuation inefficiencies.

Table 1
The alternative investment industry:
relative share of different investment styles

Long/short strategies	7%
Arbitrage and relative value	36%
Event-driven and special situation strategies	9%
Directional strategies	30%
Others (combined and opportunistic strategies)	18%
Total	100%

Source: Banque de France estimates.

⁵ The notion of arbitrage should not be interpreted here in the usual sense of “risk free” arbitrage, but rather as a position aiming to exploit a “temporary” divergence between the movements of two assets that is not typical of their long-term relationship (see Part 3).

⁶ Convertible bonds are frequently undervalued in relation to their theoretical value. The most conventional arbitrage technique consists in taking a long position in a convertible bond and a short position in the underlying stock, so as to exploit the price difference while remaining protected against fluctuations in the stock itself.

- As different as they may be, the investment styles described above all require the fund manager to be extremely proactive and adopt an opportunistic and discretionary approach. These particularities, and the constraints they impose on investors, especially in terms of the liquidity of their investment, explain why the alternative investment industry has developed within the framework of *ad hoc* structures that are not subject to prudential rules (risk division ratios, strict rules covering the use of derivatives, short selling, etc.) and transparency rules (valuation) imposed on standard investment vehicles, and are accessible only to a minority of qualified investors. These investment funds are commonly known as “hedge funds” or “highly leveraged institutions” (HLI). However, no statutory definition exists for these terms, nor do market participants unanimously agree on one ⁷. In very broad terms, from an operational standpoint, hedge funds can be qualified as all investment vehicles not bound by ordinary law in terms of protection of savings and/or that are liable to use a complete range of available

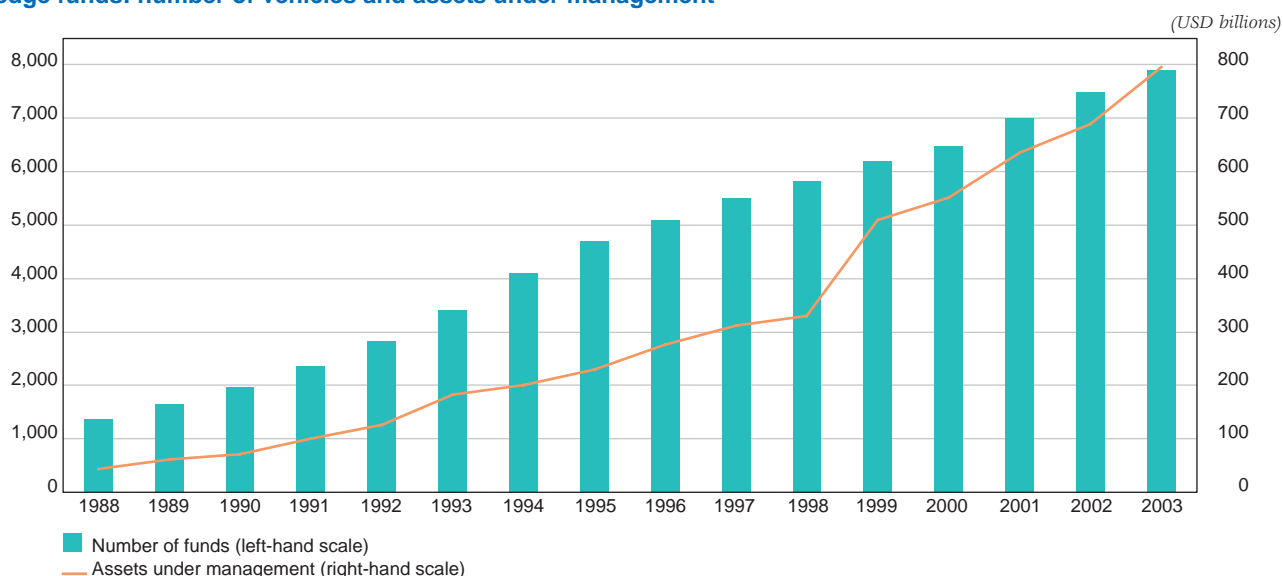
financial market instruments and techniques. In the rest of this paper we will employ the terms “hedge fund” and “alternative fund” indifferently.

1|2 An evolving industry

Investment structures and customer bases: from global macro funds to alternative multi-management

Over the past 15 years, the hedge fund industry has evolved significantly. In quantitative terms, despite the fact that alternative investment funds still only account for a small proportion of funds invested in the asset management industry, the number of alternative funds has increased dramatically, growing by a factor of around five since 1988, to exceed 7,000 units. In particular, over the same period, the amounts under management look to have increased by a factor of almost 20, to reach USD 650 billion at end-2002.

Chart 1
Hedge funds: number of vehicles and assets under management



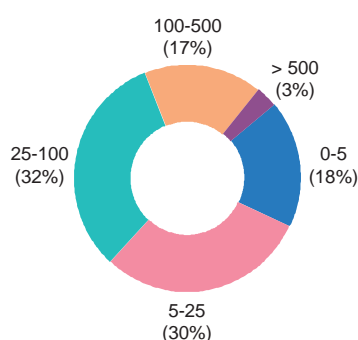
Source: Van Hedge Fund Advisors International Inc.

⁷ A document published in the light of American Supervising Authority, the Securities and Exchange Commission (SEC), hearings on hedge funds in May 2003 offers fourteen different definitions.

This booming industry has also radically restructured.

- *Global macro* funds, which symbolised the development of this industry during the 1990s, from the sterling crisis of 1992 to the Asian and Russian crises of 1997-1998, no longer dominate the universe of alternative funds. Strictly speaking, these funds currently account for less than 5% of assets under management (compared with almost 70% at the start of the 1990s) within an industry dominated by arbitrage funds and characterised by small specialised structures: according to a number of market sources, 80% of hedge funds currently manage assets worth less than USD 100 million.

Chart 2
Breakdown of assets under management
(by portfolio size, in USD millions)



Source: Banque de France estimates.

- The customer base of hedge funds, initially concentrated on wealthy private investors, in particular in the United States, steadily broadened, to encompass institutional investors

(pension funds, insurance corporations, etc.), and later on all individual investors. The development of multi-management and “funds of funds”, and the popularisation of alternative funds offering capital guarantees plainly illustrate the current “democratisation” trend of alternative investment products.

There are several reasons behind institutional and individual investors’ recent enthusiasm for alternative investment funds, some of which are cyclical, and others more structural.

- In addition to the decline in bond yields since the start of the 1980s, equity markets have fallen substantially over the past few years. The former trend prompted investors to seek new sources of high returns, while the latter highlighted the relevance of approaches aiming to achieve absolute performance, regardless of trends in the underlying markets.
- The propensity of traditional asset classes to exhibit, particularly in bear markets, a high correlation, and the limitations of international diversification stemming from the increasing globalisation of financial markets, have also contributed to this trend.
- The alternative investment industry has also expanded as a result of “deviations” in traditional management, in particular the practice of “closet indexing” in benchmarked asset management.
- Lastly, over the most recent period, the increase in volatility in all markets may have contributed to the more commonplace use of alternative investment management.

2| Performance measures and alternative risk strategies

2|1 The difficulties entailed in measuring risks in alternative investment strategies

Alternative investment strategies are infinitely more complex than those implemented by traditional funds, such as buy-and-hold strategies, as, in addition to identifying the markets in which funds take positions (*i.e.* the location factor), it is also necessary to calculate their net exposure and leverage (*i.e.* the strategy factor). Measuring their performance is rendered all the more difficult.

Traditional measurement tools ...

There are two main approaches used to measure performance: “absolute” measures, which are independent of any benchmark, and “relative” measures, which compare an asset's performance to that of a benchmark portfolio. The first category includes indicators such as the Sharpe ratio and the Treynor ratio. These measures consist in calculating the excess return of an asset minus the risk-free rate over the risk indicator. The latter can be defined as the standard deviation of the asset's return series (*i.e.* return volatility, see the Sharpe ratio), or the sensitivity of the asset to market movements (*i.e.* beta, see the Treynor ratio), or a measure of maximum loss (*i.e.* Value-at-Risk or VaR ⁸). Among the tools for measuring the relative performance adjusted for risk, Jensen's alpha (1968), the best known, is defined as the average return on a portfolio over and above that predicted by the market model, given the portfolio's beta and the average market return.

... which are poorly suited to measuring the specific nature of hedge fund performance

Exposure to multiple risk factors

Given that they are free to invest dynamically in a large range of assets, hedge funds are exposed to multiple risk factors (market, volatility, credit, liquidity, etc.). Consequently, even though some strategies are non-directional, the risk-free rate

cannot be an appropriate benchmark and the absolute performance measures discussed above are not suitable for measuring hedge fund performance. Among the relative performance measures, only those using a benchmark that takes account of all the sources of risk to which hedge funds are exposed are apposite for measuring the risk-adjusted performance of alternative strategies. Many difficulties are still encountered in measuring these risk factors and apprehending their interdependence (*e.g.* liquidity and credit risks). This explains why only a few strategies have, to date, given rise to relatively robust models (such as trend-following, merger arbitrage, and more recently bond strategies).

Dynamic and non-linear exposures to risk factors

Most performance evaluation methods currently implemented use one-factor linear or multifactorial models ⁹. The effectiveness of these models depends, *inter alia*, on the linearity of the relationships between the dependent variable and the explanatory variables. Unfortunately, three factors contribute to the non-linearity of the exposure of hedge fund performance to the different risk factors.

- A number of risk factors underlie each alternative strategy. For a given strategy, the best funds are those which succeed in correctly over- or underweighting their exposure to different risk factors. Because they use this “tactical factor allocation” strategy, and “market timing” or “risk factor timing”, their exposure to the different risk factors changes over time.
- Moreover, given that markets are relatively efficient, there are not an infinite amount of arbitrage opportunities. In order to maintain their performance, some hedge funds therefore tend to seize any opportunities that arise, even if it makes them deviate from the strategy they claim to implement. These one-off changes in style, known as “tactical style allocation” by fund managers and “style drift” (see Lhabitant, 2001) by investors, also result in variations in exposures to risk factors. The exposure of hedge funds to risk factors is hence doubly dynamic.

⁸ VaR expresses the portfolio risk as the maximum amount of loss that can be incurred for a set confidence threshold at a given time horizon.

⁹ CAPM, a three-factor model developed by Fama and French; a four-state model by Carhart; Arbitrage Pricing Theory (APT), etc.

Box 1**Traditional performance measures***Absolute measures*

$$\text{Sharpe ratio : } \frac{E(R_P) - R_F}{\sigma(R_P)} ; \text{ Treynor ratio : } \frac{E(R_P) - R_F}{\beta_P}$$

Where $E(R_P)$ is the expected portfolio return, $\sigma(R_P)$ its volatility, R_F the risk-free rate, and β_P the sensitivity of the portfolio return to market variations.

Relative measures

Jensen's alpha is calculated by the following regression: $R_{Pt} - R_{Ft} = \alpha_P + \beta_P (R_{Mt} - R_{Ft}) + \varepsilon_{Pt}$

Where R_{Pt} , R_{Ft} et R_{Mt} are the return on the portfolio, the risk-free asset and the market at date t , β_P the sensitivity of the portfolio return to market variations and ε_{Pt} an error term.

Contrary to the Sharpe and Treynor ratios, Jensen's measure contains a benchmark. However, Jensen's alpha cannot be used to compare portfolios with different risks, as the value of alpha is proportionate to the level of risk taken.

To solve this problem, Modigliani and Modigliani (1997) proposed M^2 or Risk adjusted performance (RAP). This measure evaluates the performance adjusted for the risk of a portfolio against the market benchmark, expressed as the return per unit of risk:

$$RAP_P = \frac{\sigma(R_M)}{\sigma(R_P)} (E(R_P) - R_F) + R_F$$

where $E(R_P)$ is the expected portfolio return, $\sigma(R_P)$ its volatility, $\sigma(R_M)$ that of the market and R_F the risk-free rate.

Lobosco (1999) then further developed RAP to SRAP, to take account of the effect of management style on an asset's performance. The SRAP is defined as the difference between the asset's RAP and the benchmark's RAP, representative of the asset's management style.

Lastly, in the Sortino ratio, which is very close to the Sharpe ratio, the risk-free rate is replaced by the benchmark return (or the Minimum acceptable return – MAR) and the standard deviation by the square root of the semi-variance. This indicator can then be used to evaluate the performance of an asset whose return distribution function is not symmetrical.

$$\text{Sortino ratio : } \frac{E(R_P) - MAR}{\sqrt{\frac{1}{T} \sum_{\substack{t=0 \\ R_{Pt} < MAR}}^T (R_{Pt} - MAR)^2}}$$

where $E(R_P)$ is the expected portfolio return, MAR is the Minimum acceptable return and R_{Pt} the portfolio return at date t .

- The asset portfolios held by hedge funds (in particular derivatives) are themselves sources of non-linear exposures to the different risk factors.
- The remuneration system of hedge funds comprises a fixed part (management fees) and a variable part (incentive fees). This remuneration is therefore asymmetrical as the return pattern of the variable part is similar to that of a call option on the fund's performance¹⁰. Since the performance of hedge funds is reported net-of-fees, this introduces *de facto* a non-linear component.

Traditional indicators for measuring absolute performance assume that the (total or systematic) risk is constant over the whole analysis period. Likewise, standard mono- and multi-factorial models do not take into account risk factor exposure dynamics, as the stability of the coefficients is one of the central assumptions of these models. They simply measure the average exposure to different risk factors over the analysis period. Naturally, this distorts the evaluation of hedge funds' risk-adjusted performance.

Extreme risks

Most traditional tools for measuring performance and risks assume the normality of the distribution of returns on the evaluated asset. The asset's risk is therefore characterised by its volatility (*i.e.* the standard deviation). However, many studies have shown the significance of third-order moments (asymmetry coefficient) and fourth-order moments (flattening coefficient) of the distribution functions of hedge fund returns. Hedge fund performance therefore cannot be analysed using the mean-variance framework.

Taking into account exceptional events exacerbates the statistical estimation problems that arise from using VaR¹¹. To overcome these difficulties, investors and fund managers have implemented some interesting solutions: stress tests, scenario analyses, more complex modelling of distribution tails with extreme value theory. Nevertheless, although they are theoretically more robust, there are still practical difficulties in applying them due to gaps in knowledge about the underlying factorial structure of the different alternative strategies (above all

scenario analyses and stress tests) and the limited number of observations (especially in the case of the "block maxima" method and the peaks-over-threshold method, or more simply for expansions of Cornish-Fisher-type – VaR approach)¹².

Relative measures of the performance of alternative strategies

Despite the fact that they are unsuitable for evaluating hedge fund performance, absolute measures of performance have been used in many studies. While there is no doubt that the evaluation of the performance of alternative strategies needs to take account of the risk factors to which they are exposed, the best method for doing this has yet to be determined. Where some authors used a single-factor model, others employed multi-factorial models to take better account of the diversity of risk sources. For all that, the factors in hedge fund returns remain difficult to identify; the risk being that incorrect factors may be included or correct ones left out.

Implicit factorial analysis

Hedge funds do not generate the majority of their returns from allocation between different asset classes, as is the case for traditional funds, but from the dynamic strategies implemented by their managers. However, Sharpe's model for analysing management styles does not take into account the active component of hedge fund returns. The results yielded are therefore not very significant when applying the model to hedge funds. According to the study by Fung and Hsieh (1997) the explanatory power (R^2) of Sharpe's model is indeed below 25% for 48% of hedge funds, whereas it exceeds 75% for 47% of mutual funds). Therefore, in order to improve the explanatory power, it is necessary to integrate the factors reflecting the specific nature of hedge fund strategies (*i.e.* trading factors). The best solution for identifying these, without being exposed to a high degree of model risk, is to carry out a factorial analysis of hedge fund returns in order to determine the predominant styles. This method is based on the assumption that managers investing in the same asset classes and using the same management strategies must generate correlated returns. This analysis method can be used to explain the variations in hedge fund returns, but it does not provide a clear

¹⁰ The strike price is therefore equal to the "hurdle rate", *i.e.* the return above which the fund is paid incentive fees.

¹¹ Historical VaR calculations require a large number of variables to obtain a significant event sample; VaR calculations based on a Monte Carlo approach are complex and cumbersome; parametric analyses are oversimplified.

¹² See Jorion (2001) for further details on VaR and Lhabitant (2003) for a presentation of extreme value theory.

view of the dynamics of hedge fund returns over time. Furthermore, a significant part of the variation in hedge fund returns in the sample studied is not explained by the main factors identified (*e.g.* over 50% according to the study by Fung and Hsieh, 1997).

Analysis using a linear model with non-linear regressors

In order to compensate for the lack of traditional linear factorial models for analysing hedge fund performance, models have been developed in the literature that make it possible to take account of the non-linearity of these funds' returns. New regressors (or explanatory variables) are used that have a non-linear exposure to traditional asset classes, so as to approximate dynamic management strategies in a linear regression. Option portfolios or hedge fund indices are natural candidates for these new regressors.

Given that the management strategies implemented by hedge fund managers are not known with precision, some authors have attempted to describe them using simple optional strategies. By implementing models comprising call and put option portfolios of certain location factors (equity indices, bond indices), a default factor (*i.e.* credit spread), Fama and French factors (size, value/growth) and a Carhart factor (momentum), they managed to explain a significant proportion of the variability in hedge fund returns over time ¹³.

Another possibility would be to use hedge fund indices. This approach is based on an extension of the style analysis model developed by Sharpe (1992) for traditional funds. By extending this model it is possible to take into account specific hedge fund strategies, *i.e.* the use of short-selling and leverage. With this choice of factors we can eliminate non-linearity problems, which are taken into account in the indices themselves. The accuracy of results depends directly on the quality of the hedge fund indices used. It is therefore highly recommended to use style indices that are both representative and with little bias (see the box on EDHEC indices below). This model can be used to compare the performance of hedge funds with an appropriate benchmark, without knowing with

precision the management strategy applied by the hedge fund. This model is simple to implement and uses only hedge fund returns. Its main weakness is that it assumes coefficients allocated to the different indices are constant over the whole analysis period. It is therefore difficult to capture the dynamics of exposures to risk factors.

Non-linear analysis: payoff distribution pricing model

A final approach involves using a non-linear model to explain hedge fund returns. In order to correctly evaluate the performance of portfolios with non-normal return distributions and a non-zero asymmetry coefficient, the distribution as a whole must be considered. Ideally, this should be done without specific assumptions regarding the distribution pattern. This approach therefore proposes an efficiency test whose theoretical foundations are based on the payoff distribution pricing model (PDPM) by Dybvig (1988a, 1988b). Dybvig's model attributes a price to a given consumption distribution function (*i.e.* the price is equal to the cost of the least expensive portfolio generating the consumption function). The difference between the cost of the investor's real portfolio and the cost of the least expensive portfolio generating the same consumption function seems the natural measure in monetary units of the efficiency loss. The advantage of this evaluation model is that it does not require assumptions on the distribution of the returns of the funds considered.

The results of an empirical study carried out on a sample of 1,500 hedge funds obtained from the MAR/CISDM database ¹⁴ and using all the above-mentioned performance measurement models show that traditional mono- or multi-factorial models find significantly positive alphas for hedge funds. However, when the whole distribution of returns is taken into account or only implicit factors are included in the model, hedge funds no longer, on average, have significantly positive alphas. All in all, the alpha of a hedge fund may have a dispersion of over 40% between the different methods! This reminds investors that, above and beyond the financial and operational risks to which hedge funds are exposed, model risks must also be taken into account.

¹³ This approach is perfectly illustrated in studies by Fung and Hsieh (1997) for trend following strategies, Mitchell and Pulvino (2001) for merger arbitrage strategies, Fung and Hsieh (2002c) for bond strategies and Agarwal and Naik (2003).

¹⁴ Amenc et al. (2003a).

2|2 The difficulties of benchmarking in alternative investment management

Given that the risk-free rate is not a suitable benchmark for all types of hedge funds, an appropriate benchmark remains to be determined. It appears that the alternative investment industry is shifting from an absolute return approach to a relative return approach. The principle involves comparing a given fund's returns with those of a portfolio of a fund implementing the same strategy (peer benchmarking), or with those of a benchmarking index. Already difficult in the traditional universe, compiling appropriate indices is much more complicated for the alternative investment industry, due to problems associated with both representativity and the purity (*i.e.* homogeneity) of data.

Impact of biases in databases

The use of a specific data sample, from a universe of hedge funds that cannot be observed as a whole, introduces a bias in the measure of performance. There are essentially three sources of difference between the performance of hedge funds calculated using this type of database and the performance of hedge funds as a whole. These different biases, which are described in Fung and Hsieh (2000 and 2002a), are: the survivorship bias, the selection bias and the instant history bias.

The survivorship bias occurs because poor managers leave the industry, and good managers remain. Furthermore, the funds in databases tend to be those whose return exceeds the average return for all hedge funds, as databases only contain the returns of good managers, or at least those of managers present at the time of measuring. The standard procedure for measuring the survivorship bias is described by Malkiel (1995). It involves determining the difference over the period under review between the average return for all hedge funds and the average return from surviving funds.

As the composition of indices varies significantly between the different data providers, the survivorship bias will not have the same effect on the different hedge fund indices.

The selection bias results from the fact that the selection criteria of databases may differ significantly, and the data provided by these databases are not necessarily representative of the same management universe and of the real hedge fund universe. Yet again, the impact of this bias will depend on the databases' selection criteria. The selection bias will therefore not be the same for all indices.

Furthermore, data on hedge funds are not easily accessible. Reporting the performance of an alternative fund in one of the competing databases is purely voluntary and only some funds choose to do so. This results in a "self reporting" bias. As funds not reporting their performance in any database are by definition unobservable¹⁵, it is impossible to evaluate the impact of this bias.

The instant history bias (see Park, 1995) results from the difference in the dates when hedge fund data are entered in databases. Yet, when a fund is added to a database, some or all of its history must be back filled. This can be done by extrapolating the fund's recent performance data. In general, as newly-entered funds are likely to perform well, it is probable that their average performance over the incubation period will be better than that of funds that have been in the database for a long time (upward bias on returns of newly-entered funds). If funds are not entered on the same date in two different databases, they will not be equally exposed to this bias.

Table 2
Survivorship bias and selection bias in hedge fund returns

Bias	Park, Brown and Goetzmann (1999)	Fung and Hsieh (2000)
Survivorship	2.6%	3.0%
Selection	1.9%	1.4%
Total	4.5%	4.4%

Sources: authors quoted

The heterogeneity of hedge fund indices

Competing indices are compiled using different databases and a variety of construction methods. Consequently, they are not affected in the same way by the measurement biases described above. Differences in performance therefore arise.

¹⁵ Some funds chose not to report their performance because it is not satisfactory, and others because they have already reached critical size.

Major disparities in performance are often observed in the various competing indices for a given management style. This phenomenon is particularly marked in crisis periods, in particular between August 1998 and October 1998 (see Table 2). Data provided by the different index providers differ substantially: by over 20% in the case of the performance of the Zurich and EACM (Evaluation Associates Capital Markets) long/short equity indices in February 2000 (see Amenc and Martellini, 2003). An analysis of mean and median correlations

between the performance of different competing indices confirms this lack of homogeneity. The mean correlation between competing indices on a given type of strategy (equity market neutral: 0.43, long/short equity: 0.46) may be less than 0.5. The increasing number of index providers and construction methods result in a greater heterogeneity of data. If we consider that the heterogeneity indicator $HI = 1 - \text{mean correlation}$ ¹⁶, it is obvious that hedge fund indices do not provide the representativity conditions necessary to offer investors a homogenous vision of alternative funds.

Table 3

Differences in maximum performance observed between representative indices of a given style
(from January 1998 to December 2000)

Investment styles		Maximum differences (with dates and indices)
Convertible arbitrage	4.76%	October 1998: CSFB (-4.68%) / Hennessee (0.08%)
Distressed securities	6.91%	February 2000: EACM (1.31%) / Zürich (8.22%)
Emerging markets	19.45%	August 1998: MAR (-26.65%) / Altvest (-7.20%)
Equity market neutral	5.00%	December 1999: Hennessee (0.20%) / Van Hedge (5.20%)
Event driven	5.06%	August 1998: CSFB (-11.77%) / Altvest (-6.71%)
Fixed income arbitrage	11.30%	October 1998: HF Net (-11.10%) / Van Hedge (0.20%)
Funds of funds	8.01%	December 1999: MAR (2.41%) / Altvest (10.42%)
Global macro	14.17%	October 1998: CSFB (-11.55%) / Altvest (2.62%)
Long/short equity	22.04%	February 2000: EACM (-1.56%) / Zürich (20.48%)
Merger arbitrage	1.87%	February 1998: HF Net (1.08%) / Altvest (2.95%)
Relative value	10.47%	September 1998: EACM (-6.07%) / Van Hedge (4.40%)
Short selling	21.20%	February 2000: Van Hedge (-24.30%) / EACM (-3.10%)

Source: Amenc and Martellini (2003).

In order to document the heterogeneity of different indices we can also consider the differences in exposure to the main risk sources of these strategies. The results given in Table 4 speak for themselves. Once again, we clearly

observe that the different competing indices are very heterogeneous. In view of the different exposures to the various risk factors, the results will differ according to the competing index chosen as the benchmark.

Table 4

Sensitivity to the main risk factors – the fixed income strategy
(from January 1998 to December 2000)

Fixed income arbitrage	Market risk	Volatility risk	Interest rate risk	Slope of the yield curve	Exchange rate risk	Commodities risk	Credit risk	Liquidity risk
CSFB	0.00	0.12	0.15	0.23	0.42	0.05	-0.38	-0.10
HFR	-0.16	0.14	0.25	0.19	0.57	0.07	-0.24	-0.18
Van Hedge	0.53	-0.47	0.09	0.02	-0.13	0.14	-0.16	-0.05
Hennessee	0.37	-0.37	0.06	0.19	0.26	0.12	-0.22	-0.12
HF Net	-0.10	0.20	0.22	0.20	0.42	0.03	-0.37	-0.01

NB: Market risk: relative variations in the Standard and Poor's 500 Price Index; Volatility risk: relative price variations in the VIX contract; Interest rate risk: variations in the three-month Treasury bill yield; Exchange rate risk: USD exchange rate against a basket of foreign currencies; Commodities risk: relative price variations in a barrel of crude oil; Liquidity risk: changes in the volumes of securities traded on the New York Stock Exchange (NYSE); Credit risk: relative changes in the spread between yields on bonds rated BAA and AAA by Moody's; slope of the yield curve: spread between the yield on a 30-year bond and a three-month T-Bill.

Source: Amenc and Martellini (2003).

¹⁶ Perfect heterogeneity of indices is expressed as $HI = 1$.

Just as in the traditional management universe, the different indices published are neither collectively exhaustive nor mutually exclusive. However, in the case of the alternative investment universe, the lack of

regulation and the associated lack of transparency exacerbate this problem considerably. It is therefore crucial to construct style indices that meet sector professionals' transparency and reliability requirements.

Box 2

The EDHEC alternative indices

As no consensus has been reached on the best methods for classifying funds or constructing alternative indices, it is not possible to determine objectively which of the existing indices is the most representative. Rather than arbitrarily selecting one, EDHEC suggests choosing all of them and then combining them in such a way as to obtain a relevant representation of the performance of alternative strategies. By selecting all the indices, it is possible to aggregate the underlying databases and thus obtain a more representative index. In order to achieve the optimum solution, we can then use principal component analysis (PCA). It should be recalled that the first axis of the PCA gives the linear combination of the original variables (e.g. the series of returns of competing indices) that make it possible to capture the greatest amount of data contained in the variance/co-variance matrix of the original variables. Then, it is just a matter of selecting the first axis of the PCA and standardising the weights to obtain an index of indices that maximises the degree of representativity. The weightings of indices of indices are then recalculated every three months in order to maintain the quality of representativity. In order to ensure that the method is efficient, indices of indices are compared to the portfolios of funds consisting of a very large number of funds (i.e. highly representative). The higher the correlation coefficient with the portfolios of funds, the more representative the index. Table 5 compares the correlation coefficients obtained by the EDHEC indices (i.e. indices of indices) with the average correlation coefficients obtained by the indices available in the market. Note that the database used for this test contains 7,422 funds (including 2,317 not recorded in any database)¹. Indices of indices are systematically more representative than the average of the indices of which they consist.

Principal Component Analysis can be used to obtain the linear combination of the competing indices that make it possible to capture the greatest amount of data contained in these different indices. As the table opposite shows, this results firstly in a maximisation of the degree of representativity. Secondly, and of equal importance, indices of indices are, by construction, systematically less biased than the indices of which they consist due to the fact that competing indices are not all affected in the same way by the performance measurement bias. Therefore, the maximisation of the explained variance implicitly leads to a minimisation of the biases. This property of indices of indices is useful for evaluating the performance of alternative strategies.

Table 5
The degree of representativity

Investment styles	EDHEC indices	Competing indices
Convertible arbitrage	0.84	0.77
Distressed securities	0.94	0.88
Emerging markets	0.98	0.95
Equity market neutral	0.41	0.35
Event driven	0.96	0.93
Fixed income arbitrage	0.81	0.63
Funds of funds	0.93	0.88
Global macro	0.77	0.61
Long/short equity	0.98	0.67
Merger arbitrage	0.86	0.83
Relative value	0.89	0.75
Short selling	0.73	0.71
Average correlation coefficient	0.84	0.75

¹ We would like to greatly thank François-Serge Lhabitant for providing us with the series of portfolio returns obtained from a database of 7,422 hedge funds.

3| Alternative investment management from the financial stability perspective

From the financial stability perspective, the development of the alternative investment industry raises two sets of questions. First, to what extent does this management approach and the techniques involved impact on the functioning and dynamics of financial markets? Second, in view of the specific risks associated with the alternative investment industry, how should roles be divided between market participants and supervisory authorities for the oversight of this activity and its development?

3|1 Contribution to the functioning of financial markets

Given the diversity of alternative investment strategies, it is not possible to unequivocally assess the impact of the alternative investment industry on the functioning of financial markets. An approach by management style and an analysis of techniques used by alternative fund managers prove to be more fruitful, and also make it possible to pinpoint the specific risk factors associated with alternative investment management.

More complete financial markets

A detailed examination of the functioning of financial markets reveals that “pockets” of inefficiency, as defined in financial theory, *i.e.* situations in which asset prices do not reflect all available fundamental data, are likely to develop. These anomalies lead *in fine* to asset price misalignments. A number of investment strategies implemented by alternative investment firms, in particular non-directional strategies, aim to exploit these situations ¹⁷:

- *by providing market liquidity when there appears to be a lack.* In general, given that alternative funds are not subject to the constraints governing most other market participants, they can deal with market shocks better, and therefore provide liquidity when markets are unbalanced. On

“distressed” debt markets, or high-yield bond markets, which are narrow and fragile markets because they do not have a broad natural investor base, demand from alternative funds may contribute to limiting excessive price misalignments. Likewise, the spectacular development of the convertible bond market in recent years is largely due to the capacity of funds specialising in this type of arbitrage to absorb an increasing supply of paper;

- *by actively participating in the financial asset price discovery process.* “Long/short” strategies and arbitrage strategies contribute to ensuring the overall consistency of financial asset prices. Alternative funds’ strategies are very different in this area from those of traditional fund managers and may also have, *ceteris paribus*, a greater impact: on the one hand, in their allocation decisions, they do not face the constraint of not being allowed to deviate excessively from a benchmark portfolio and, on the other, they can short sell securities deemed to be overvalued.

Fuelling destabilising dynamics?

The fear that hedge funds’ strategies may be fuelling destabilising market dynamics would appear to contradict the “merits” often attributed to them, *i.e.* that they are thought to reduce volatility and foster greater financial market stability. The continuing debates over short selling, and its use by hedge funds, illustrate the complexity of this issue. There is no doubt that short selling may, in the context of fragile markets, amplify an imbalance and facilitate the development of cumulative depreciation ¹⁸. However, this technique, which is not only used for speculating on the fall in the price of a specific security, is also implemented by other players. Furthermore, it is often combined with long positions (*i.e.* in long/short strategies and arbitrage strategies). Lastly, it should be noted that short selling can be replicated synthetically using standard market instruments such as swaps.

¹⁷ It should be noted that the operating methods of these funds do not differ fundamentally from those of the proprietary traders of commercial and investment banks.

¹⁸ The same argument can be put forward for leveraged securities purchases and the use of derivatives for leveraging a long position, which fuel cumulative appreciation.

More generally, most academic studies carried out on this subject do not attribute an intrinsically destabilising role to alternative investment strategies: it does not appear that hedge funds' positions on markets systematically fuel deviations in asset price from "fundamentals"¹⁹, nor do they seem to lead to herd or mimetic behaviour among other market participants or "positive feedback trading"²⁰.

This diagnosis can be refined by breaking down the impact of alternative strategies according to:

- *type of management style*: directional strategies, in particular "trend following" strategies, are by nature more prone to exacerbate sharp price movements and amplify the short-term trends prevailing on markets. The fact that these strategies rely to a large extent on leverage aggravates this problem (see below);
- *the overall configuration of the markets*: when markets are stressed, they are more likely to become unbalanced by participants that take speculative positions, that use a large array of instruments or that can more easily make use of leverage;
- *type of underlying market*: the successive exchange rate crises of the 1990s, in both developed countries (ERM) and emerging countries (Asia and Latin America) have demonstrated that in some circumstances a speculative attack on a currency may be self-fulfilling if the market becomes convinced that, in the short run, it will be too costly for the authorities to defend the exchange rate, even if it had initially been sustainable. These episodes have also showed that, even though it is traditionally considered to be one of the most deep and liquid markets, the foreign exchange market is not immune to such incidents.

Irrespective of the potential destabilising effects of alternative investment strategies, it should be recalled that the investment mechanisms used in traditional assets management may also have a destabilising impact (short-termism, strict benchmarking, etc.)²¹.

3|2 Exposure to specific risks

Alternative investment management is often presented as offering investors protection against adverse market movements (*i.e.* against the risk of a fall in prices). This argument should however be qualified. Furthermore, a possible protection against market risk does not mean that no risks exist, but rather that specific risks are present.

Market risk is not systematically absent from alternative strategies

Aside from directional strategies, which, clearly, are fully exposed to this form of risk, it is interesting to note that alternative funds exhibit not only very different correlation levels with traditional asset classes (equities and bonds), but also that these correlation levels change in line with the direction of markets: studies on conditional correlations have demonstrated that the correlation levels with the stock market of many alternative strategies increased during periods of sharp falls in the market, *i.e.* exactly when decorrelation would be most useful.

Not only does the alternative investment industry face persistent market risk, but also more specific risks.

Operational risks

The strategies deployed by alternative fund managers are often extremely complex, requiring the extensive use of mathematical modelling and sophisticated quantitative techniques. Model risk, whether arising from the definition or the assessment of the risks incurred (see Part 2), is of particular relevance. While it is not the only factor responsible for the spectacular collapse of LTCM (Long Term Capital Management) in autumn 1998, the unsuitability of risk measurement tools (inadequate calibration of the parameters used to calculate VaR, insufficient records of data used and non-stationarity of series) is one of the main reasons behind this failure²². The fact that the relative value strategies implemented by hedge funds have to be analysed as statistical convergence strategies rather than arbitrages in the strict sense of the term makes it is even more important to focus on model risk.

¹⁹ Fung and Hsieh (2000): "Measuring the Market Impact of Hedge Funds", Journal of Empirical Finance.

²⁰ Eichengreen (1999).

²¹ Committee on the Global Financial System (CGFS) (2003).

²² Jorion (2000).

“Manager risk” may also be considered, among operational risks, as a specific risk that includes components such as the quality of the decision-making process and the actual expertise of the fund manager, which is a crucial factor in the alternative universe.

From liquidity risk to risks associated with leverage

This risk, while it is not specific to alternative funds, takes on a particular relevance and form in the context of alternative investment. It is especially relevant because these funds invest in assets whose secondary markets lack depth and liquidity²³. It is also significant because alternative vehicles frequently finance their positions using borrowed funds or, to a greater degree, using leverage. Leverage takes many forms: bank loans, derivatives or repo transactions, short selling techniques and buying on margin. Yet again, we should stress that alternative funds are not the only market participants that use these techniques or leverage. What sets them apart is that they are not constrained by regulatory limits governing this practice. All other things being equal, the use of leverage exacerbates the different risks incurred by funds and reduces their resilience to deal with unforeseen shocks. In particular, it increases market risk, *via* the collateralisation mechanisms associated with debt financing and derivatives transactions: a fall in the price of underlying assets will trigger margin calls and/or the rapid liquidation, under probably unfavourable conditions, of positions refinanced in this way. This is one of alternative funds’ factors of fragility, and a potential source of contagion of the difficulties of some of its participants to the market as a whole.

It is nevertheless difficult to accurately assess the scale of the use of leverage by alternative funds: they do not have any mandatory disclosure requirements in this area, and the available data is patchy as it only refers to leverage recorded in the balance sheet. According to available market data²⁴, it appears that almost three-quarters (74%) of alternative funds may habitually use leverage in their transactions (funds specialising in defaulted bonds make the least use, with only 52% resorting to this technique, while macro and arbitrage funds are the main users with 89% and 82% respectively). The amount of leverage remains limited, with average leverage ratios of around 2 to 1 for hedge funds as a whole, and only exceeds this value for 30% of funds. This is a far cry from the extreme values registered by LTCM (50 to 1).

²³ “Congestion risk” is a particular expression of this liquidity risk liable to affect the conduct of an investment strategy: a strategy that is profitable will gain in popularity and attract new funds until the initial opportunities are exhausted for all those except participants willing to accept an ever-increasing amount of risk.

²⁴ Van Hedge Fund Advisors International.

3/3 The regulatory framework of the alternative investment industry: a division of roles between market participants and supervisory authorities

The alternative investment industry has developed in an environment very largely free from the regulatory constraints that limit “traditional” market participants. It could also be said that the industry grew as a reaction to the restrictions that these regulations imposed on its participants and to exploit the effects of these limitations. Developments to date have shown that alternative investment management, according to the form it takes, may contribute positively, to differing degrees, to the functioning of financial markets. We cannot however conclude that the development of this industry should necessarily be unregulated. Attention should be squarely focused on the conditions in which the alternative investment industry is developing for two main reasons.

- The LTCM episode in 1998 illustrated how the threat of a systemic crisis arising from the failure of a key player, but whose importance on these markets was only realised when it collapsed, could weigh on financial markets.
- The alternative investment industry is currently opening up to new types of investors: on the one hand, individual investors (in addition to its initial wealth management and private banking clientele) and, on the other, institutional investors, both of whom the law sets out to protect.

The prevention of systemic risk and the protection of savings are the two main reasons for implementing regulations to frame the development of the alternative investment industry. As it stands today, this framework is built around the close co-operation of market participants and the public authorities, combining the self-discipline of the former and the limited regulatory constraints of the latter. In the medium term, the more effective the implementation of market discipline, the less need there will be to extend this regulatory framework.

Market discipline

Above and beyond the concerns that had already been voiced by regulators, even before the collapse of LTCM, this major shock gave rise to a salutary realisation on the part of the hedge funds themselves, the institutions financing them and investors, about the need to substantially improve the operating procedures of this type of activity and the supervision to which it should be subject by their counterparties as well as by their customers.

This realisation led to the development of codes of good practices²⁵ that attempt to establish standards for the industry as a whole. The recommendations they propose target in particular the internal organisation of funds (identifying responsibilities, organising risk monitoring), the rules applicable to the management of different risks (valuation methods and resources to be implemented) and disclosure of information (to investors, credit suppliers, and even regulators). While these codes represent a significant step forward in terms of the governance and transparency of funds, they are not however legally binding²⁶, and their effectiveness therefore remains uncertain. While the Financial Stability Forum subscribes to this notion of self-discipline, it nevertheless regularly assesses, together with the Joint Forum, the progress made in these areas, in particular in the light of recommendations in the Report of the Fisher Group on enhancing disclosure.

Aside from the funds themselves, their counterparties and investors have a key role to play in the implementation of efficient mechanisms of discipline and self-regulation.

- Credit institutions that finance alternative funds are at the centre of the market's self-regulation mechanism. This is particularly the case for prime brokers that provide a complete financial and logistical service to hedge funds, from the financing, executing and post-market management of transactions (settlement, delivery versus payment, accounts holding and custody services), to the management of margin calls, organisation of securities borrowing/lending, and even external information and organisation of marketing programmes. They are the only players to have a complete view, in real time, of the situation of hedge funds.

- The opening up of the alternative investment industry to institutional investors also transfers to the latter a specific responsibility in terms of monitoring. Because they themselves are subject to strict reporting requirements and must follow a rigorous investment process, these investors are in a position to lend significant momentum to increasing the transparency of the alternative investment industry. There is no longer any doubt as to the beneficial effects of the "discipline of transparency". As regards hedge funds, we shall confine ourselves to the results of a recent study analysing the reported performance of these funds in the light of their accounts auditing practices: alternative funds are not usually subject to disclosure and auditing requirements. Their performance reporting, recorded in a number of specialised databases, is also carried out on a voluntary basis. A study by Bing Liang highlights the fact that the differences in performance of the same fund from one database to the next (in itself an anomaly) are less significant for audited funds than for others. The paper also shows that there is a positive relationship between the size of the fund and its use of auditors, and that funds which make the least use of leverage on the one hand, and those with the largest investor bases on the other, are most likely to have their accounts audited. Investors and alternative fund managers have started fruitful discussions that would be beneficial to build upon.

A regulatory framework that remains limited

To date, intervention by supervisory authorities has remained fairly limited. Banking supervisors have also favoured an indirect monitoring of hedge funds by stressing, on the one hand, the principles of sound risk management that should guide relationships between credit institutions and their counterparties of this type, and, on the other hand, by enhancing where appropriate the disclosure of their exposures requested from credit institutions: in France, for example, for poorly-rated or unrated counterparties, regulations on reporting large exposures have been modified, with credit institutions now being required to report exposures in gross rather than net terms.

²⁵ "Sound Practices for Hedge Fund Managers" (February 2000); "Guide to Sound Practices for European Hedge Fund Managers" (August 2002).

²⁶ It should be noted however that in France, the guide to sound professional practices currently being drawn up by the Association française de gestion shall have, after approval by the Commission des opérations de bourse (COB), the status of professional standard.

Market supervisors, for their part, have focused on defining (restrictively) the conditions for the selling of investment products offered by alternative investment funds, with a view to protecting individual investors.

In this exercise, market authorities must take into account individual investors' growing appetite for these types of funds as well as the increasingly diversified range of alternative products offered by multi-management or structured investment funds. Without pronouncing on the outcome of these deliberations by the market authorities in different countries, they appear, at present, to be opting for a change in the access conditions to these products, and a clarification of the regulatory regime, in order to prevent in particular an uncontrollable off-shore development of these products. In practice, these regulatory developments result in promoting the indirect access to alternative products, through multi-management and alternative funds of funds.

The development of the multi-management industry

In brief, multi-management gives investors the opportunity to invest in a selection of alternative funds offering different risk profiles rather than one specific alternative fund with a particular risk profile. Alternative funds of funds are the most dynamic segment of the alternative investment industry: they currently account for USD 200 billion in assets under management, *i.e.* more than a third of the assets managed by this industry. Funds of funds have significant advantages for "new" alternative investors given that they select individual funds from within an expanding range of products, while taking charge of monitoring performance and relations with alternative fund managers. These funds offer a diversification of risk between several management styles, and also reduce the risk of loss associated with the high hedge fund mortality rate. The multi-management approach shares some common characteristics with the traditional management universe; using a multi-fund manager is a way of managing the agency and asymmetry of information problems that underlie the development of the asset management industry. When selecting funds the multi-management fund manager plays a similar role to that of the traditional fund manager in his/her asset allocation decisions.

Technically, therefore, funds of funds appear to be one of the favoured vehicles for the large-scale development of the alternative investment industry. In a number of countries, regulatory developments also lend impetus to this trend.

Regulatory developments

The notion of qualified investor is used in most jurisdictions to restrict access to alternative products to investors considered capable of assessing the risks inherent in this management approach and bearing the potential losses. This restriction may take the form of a minimum subscription requirement (as is the case most frequently) and/or a minimum income or wealth requirement.

These types of restrictions exist both on direct access to alternative funds and on investment in funds of funds. The more recent regulations on access to funds of funds are generally much less restrictive than those on direct access to individual funds. In France, for example, access to *organismes de placement collectif en valeurs mobilières (OPCVM) à procédure allégée*, the closest asset management vehicle to what is usually understood by a hedge fund, is reserved for qualified investors, with a minimum subscription requirement of EUR 500,000. "Contractual funds"²⁷, created under the financial security bill, will in due course become part of this range of funds. However, new regulations on multi-management funds (see Box 3), set the minimum subscription requirement at EUR 10,000. In Italy, direct access to *fondi speculativi*, also restricted to certain investor categories, is subject to an initial subscription of EUR 500,000, and EUR 25,000 for funds of funds, accessible to individual investors. In Germany, a bill currently under review would restrict direct access to hedge funds to institutional investors, and give individual investors the possibility to invest in funds of funds. These rules are equivalent to those in place in the United States, where investors are subject to an initial subscription of USD 25,000 for accessing multi-management investment products, and USD 200,000 (or net wealth of USD 1 million) for hedge funds *stricto sensu*. In the United Kingdom, alternative funds of funds can be marketed without restriction to individual investors as long as they are listed, but can only invest in funds actually approved by the Financial Services Authority (FSA).

²⁷ These funds, restricted to qualified investors, will operate without an authorisation from the supervisory authority (on the basis of simple declaration), and will not be subject to any constraints in terms of division of risk. Nor will they face constraints in terms of asset types. They will be free to establish the frequency and method of calculating net asset value.

Box 3

Regulating alternative multi-management investments
(COB press release of 3 April 2003)

In France, management strategies seeking to deliver absolute returns, uncorrelated with a benchmark index have developed only marginally. They are not widely distributed and account for limited amounts under management. Amid difficult market conditions, demand for these products has grown, mirroring the international development of hedge funds. Today, these management strategies are commonly referred to as "alternative", although this term has no standard international definition and its substance varies significantly.

In France, alternative investments primarily consist of alternative funds of funds, i.e. French funds invested in offshore funds or French funds with a specialist bias, such as futures or options). It is therefore necessary to establish a precise legal framework which can be applied to an activity that France has tolerated for almost a decade.

Investment management companies that choose French or foreign funds relying on complex management techniques much follow due diligence procedures, which need to be formalised and included in a special programme of operations (for discretionary management and collective investment fund management). Furthermore, investors must be informed of the special characteristics of such products and techniques through the marketing programme and appropriate informational materials. In order for them to make an informed decision about a particular product, prospective fund subscribers and discretionary clients must be clearly informed by means of the fund's prospectus, discretionary mandate and any promotional literature, of the type of investment involved and the specific risks inherent in it.

Following several months of industry-wide discussions, the COB recently adopted a series of positions (...) that establishes a framework for contributing to the development of alternative investment activity and ensuring proper security. The main rules are as follows ¹.

- Management companies managing a fund or a mandate invested in an alternative fund must update their programme of operations accordingly (companies seeking authorisation to exercise this activity must submit this amended programme beforehand).*
- General purpose funds with less than 10 per cent of their assets vested in alternative funds must update their prospectus accordingly (and the management company must update its programme of operations).*
- General purpose funds with more than 10% of their assets invested in alternative funds must update their prospectus. Management companies must supplement their programme of operations with a marketing programme (for newly formed funds, these documents must be submitted to the COB as a prerequisite for authorisation).*

The COB will review programmes of operations to ensure that management companies have the necessary skills and resources to manage these products.

Existing regulations will be adapted to cover alternative investment funds — notably via the creation of a new classification: "funds invested in alternative funds" — in 2003. This will be part of an overall regulatory overhaul aimed at taking into account the issues dealt with by the COB (e.g. the working group on management fees and charges, chaired by Philippe Adhémar) as well as new European directives.

In addition, discussions are still underway with the French Investment Management Association, AFG, with a view to approving a code of professional conduct for market participants involved in alternative investment strategies.

These discussions will be extended, in collaboration with the industry as a whole, to determine the best arrangements for implementing direct alternative strategies in funds organised under French law.

¹ The decision statement and special programme of operations are available on the COB website at www.cob.fr.

A recent study by the FSA has shown that individual investors have little appetite for direct access to hedge fund products.

As the new regulatory regime for alternative multi-management in France shows (see Box 3), this indirect access to alternative investment products is often coupled with the implementation of a new regulatory framework. The latter aims to ensure that not only investors are protected (specific monitoring of sales and marketing conditions, restricting access

to alternative investment products, banning direct marketing of underlying funds and updating prospectuses) but also, more broadly, that the operational risk associated with this management approach is prevented (management firms concerned are required to submit a special programme of operations to the COB for approval, with a view, in particular, to ensuring the expertise of management teams, the suitability of specific risk control procedures, the existence of technical resources, etc.).

All in all, the alternative investment industry does not deserve to be excessively praised or maligned. Looking to it to find the solution for the difficulties recently encountered in traditional asset management would be just as simplistic as branding it a systematic factor of financial market destabilisation: alternative investment can indeed be an instrument for risk diversification and, in this respect, a useful tool in overall portfolio management, while contributing to greater market efficiency. But it can also contribute to, or even amplify market imbalances. More than simply a new asset class, alternative investment management should be seen for what it really is: an ensemble of unconventional investment strategies, often very different from one another, involving traditional asset classes, and carrying its own specific risks. The spectacular movements observed on financial markets over recent years, and the disappointment of investors, have accelerated the recognition of the alternative investment industry and just as spectacularly fuelled its development. This first hurdle has now been overcome but many more challenges still face the alternative investment industry: how can a niche activity become a mature industry without losing its particular features? How, over time, can performance and standardisation be reconciled? In the long term, the answer to these questions will depend, in particular, on the balance struck between market discipline and the regulatory framework, as well as on the alternative investment industry's capacity to open up and enhance transparency. We have seen how crucial the complex issue of measuring performance and risk is in this area. It will also depend on the developments that the "traditional" asset management universe will necessarily undergo: if it evolves towards a "core-satellite model", this would reinforce the position of alternative investment management alongside a more systematic index-linked approach. Conversely, if traditional fund managers return to a more pro-active approach, this would no doubt limit the alternative sector's growth margin.

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