



Hedge Fund Investments: Institutional Investors' Expectations

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Practices for Hedge Fund Diversification

1. Background to the survey

- (i) Introduction
- (ii) Rationale for Hedge Fund Investments: Alpha or Beta?
- (iii) Hedge Funds in the Investment Process
- (iv) Implementation

2. Results

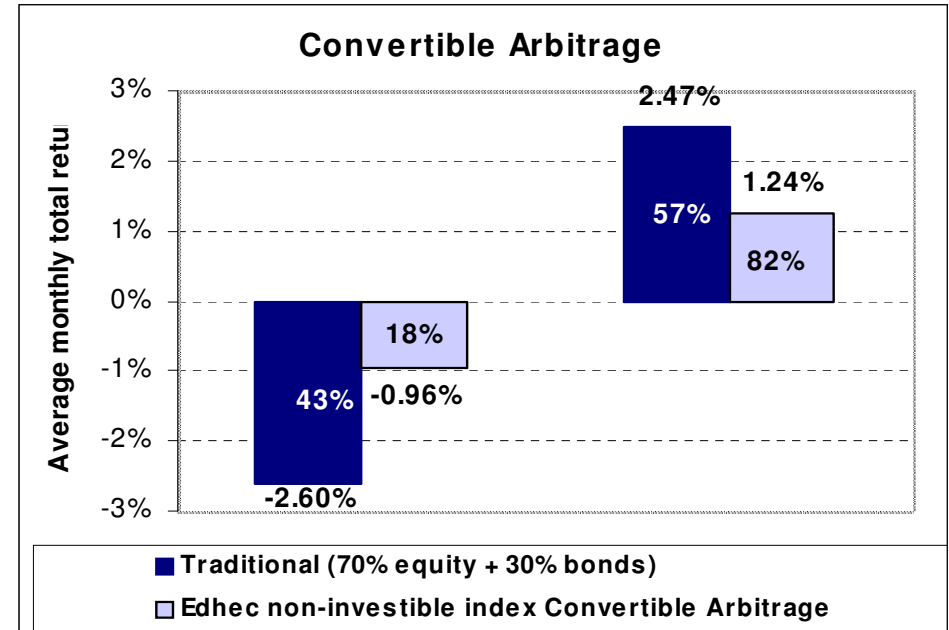
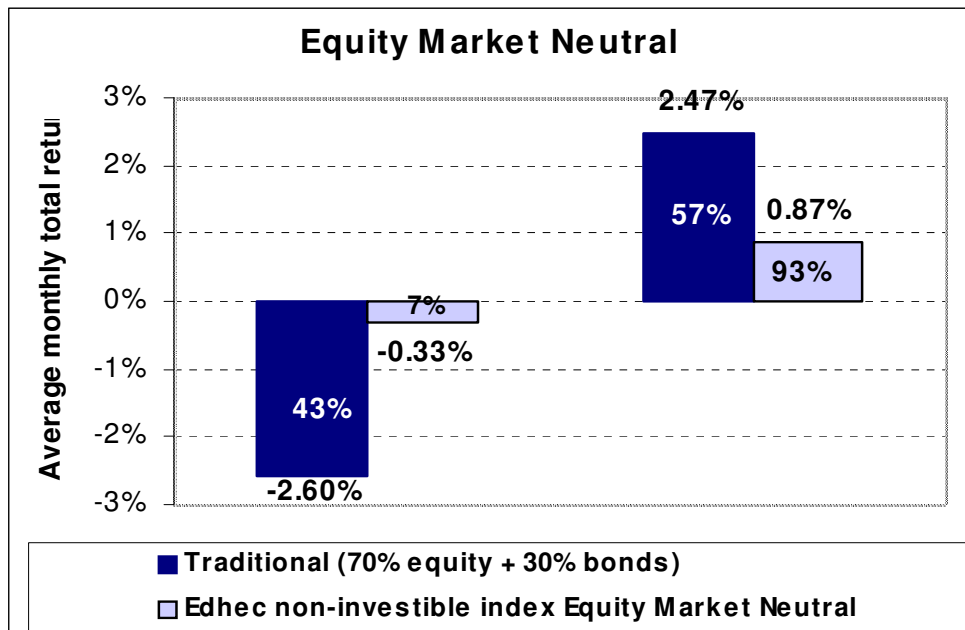
- (i) From Margins to Mainstream
- (ii) From the Satellite to the Core Portfolio
- (iii) Investment Ideology Needs to Be Clearly Defined
- (iv) Inefficient Integration of Hedge Fund Strategies
- (v) In Search of Relevant Information

Why yet another survey?

- Contrast academic perspective with current industry practices
- “Institutionalisation”: What are the perceptions and requirements of institutional investors?

Rationale for Hedge Funds

Non-linear Exposure



Data from 01/97 to 12/2005. MSCI world index is used as a proxy for equity; Lehman Global Treasury is used as a proxy for bonds; Edhec HF indices are used as proxies for HFs.

- Through Dynamic Trading
- Through Use of Derivatives

Rationale for Hedge Funds

Exposure to Alternative Risk Factors

	Equity Factors					Bond Factors					Others Factors
	Implied Volatility (VIX)	Change in (VIX)	Value versus Growth	Small Cap versus Large Cap	S&P500 return	Term Spread	Credit Spread	Bond Return	Historical Volatility Bond Return	T-Bill 3 months	Commodity Index
Equity Market Neutral				+	++	-	-	+		++	
Convertible Arbitrage										+	
Long/Short Equity	-	--		++	+++		--				
CTA Global	+							++	-		+
Event Driven	--	--		++	+++		--		-		

Sample period: 01/1997 to 12/2005. Edhec Hedge Fund indices are used for the different hedge fund strategies. Series have been adjusted to account for the presence of serial correlation. Single regression analysis is first used to isolate factors with significant impact. Only the significant factors indicated. + is used to denote a long exposure, and - is used to denote a short exposure. The presence of ++ and +++ (respectively, -- and ---) signals that the long (respectively, short) exposure is relatively strong.

Rationale for Hedge Funds

Alphas versus Betas

- Two types of betas
 - Traditional betas
 - Alternative betas
- Two types of alphas
 - Alpha emanating from picking skills
 - Alpha emanating from factor timing bets
- In brief:

HF Returns = Traditional Equity Factors (TEF) + Traditional Bond Factors (TBF) + Alternative Equity Factors (AEF) + Alternative Bond Factors (TBF) + Other Alternative Factors (OAF) + Alpha

Hedge Funds in the Investment Process

Betas

➤ Different hedge fund strategies have very different exposures*

With MSCI World Stock Index

	Convertible Arbitrage	CTA Global	Event Driven	Equity Mkt Neutral	Long Short Equity
Covariance Beta	0.06	-0.11	0.27	0.06	0.38
Coskewness Beta	0.06	-0.32	0.43	0.06	0.37
Cokurtosis Beta	0.10	-0.26	0.36	0.07	0.38

With Lehman Global Treasury Bond Index

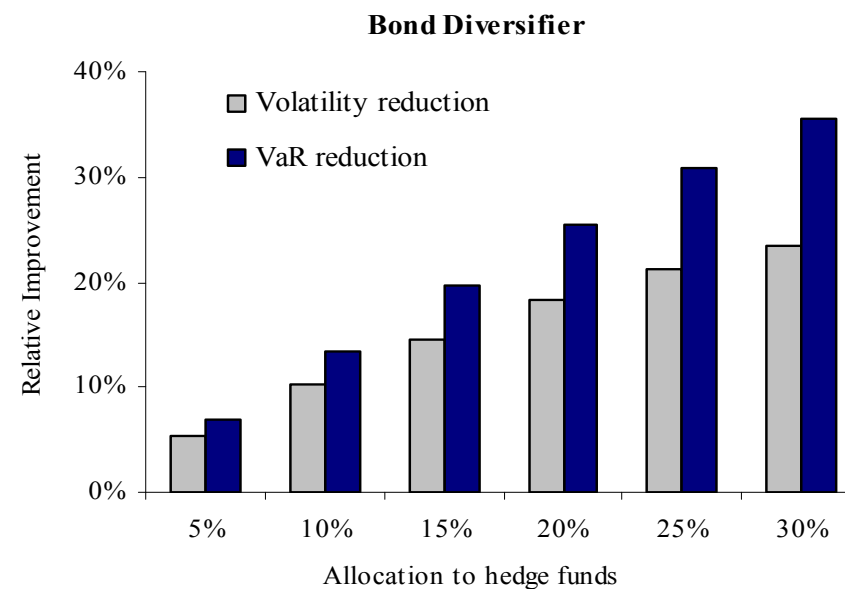
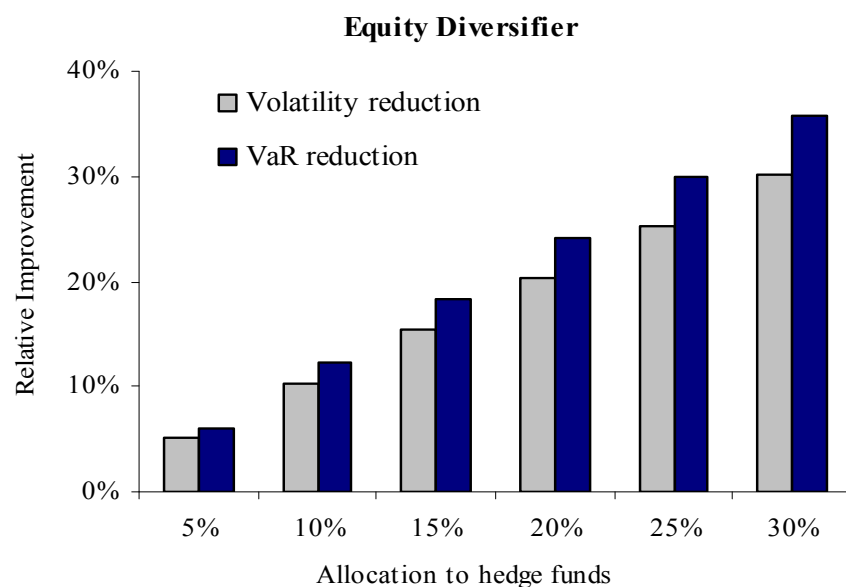
	Convertible Arbitrage	CTA Global	Event Driven	Equity Mkt Neutral	Long Short Equity
Covariance Beta	-0.06	1.51	-0.34	0.05	-0.37
Coskewness Beta	1.23	-1.01	1.39	0.65	0.77
Cokurtosis Beta	-0.12	1.27	-0.36	0.08	-0.08

*Hedge Fund strategies represented by Edhec Alternative Indices (period: 01/1997-12/2005)

→ Diversification benefits (not only volatility reduction)

Hedge Funds in the Investment Process

Risk Reduction



The sample period is 04/2002 to 12/2005. For diversifying the equity portfolio, we have used the following Edhec Investable Hedge Fund indices: Equity Market Neutral, Convertible Arbitrage, Event Driven, Long/Short Equity. For diversifying the bond portfolio, we have used the following Edhec Investable hedge fund indices: Equity Market Neutral, Convertible Arbitrage, CTA Global. The MSCI World Equity Index and the Lehman Global Treasury Index have been used as proxies for the returns on stocks and bonds, respectively.

Hedge Funds in the Investment Process

Alphas

- Absence of tracking error constraints allows alpha to be maximised for a given level of skill:

“Fundamental law of active management”¹:

$$IR = TC(IC\sqrt{N})$$

IR: Information Ratio

IC: Information Coefficient (correlation between forecasts and outcomes)

N: Number of independent forecasts (quantity of bets) or bets

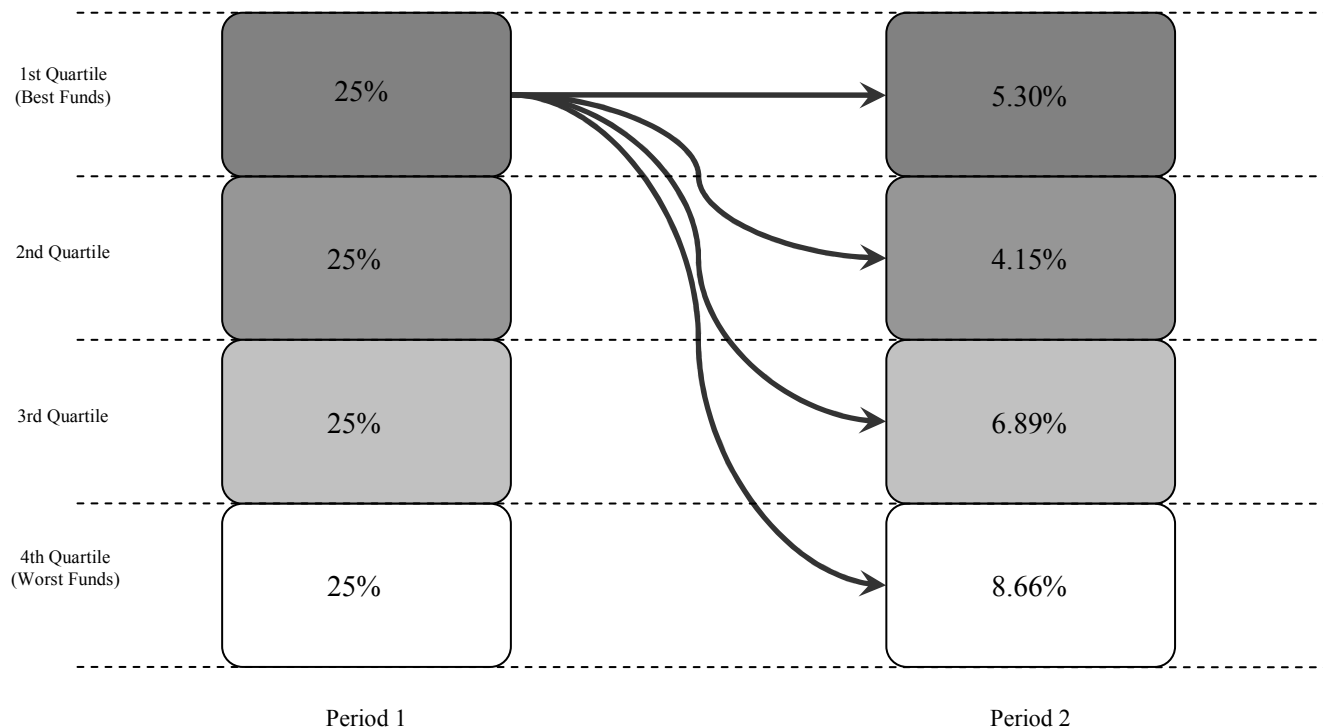
TC: Tracking Error Constraint

¹Grinold, 1989; Clarke, De Silva, Thorney, 2002

Hedge Funds in the Investment Process

Manager Selection

- Alpha is difficult to measure (see Amenc, Curtis and Martellini, 2004)
- Alpha is not necessarily persistent

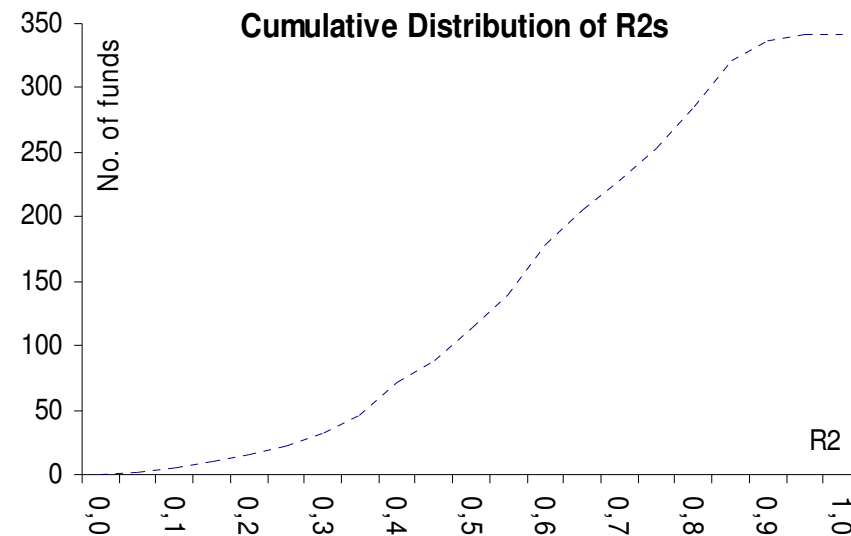


Distribution of 283 funds in the CISDM database, that were classified as first quartile in period 1 (i.e. from 12/1999 à 12/2000), when ranked by returns in the 2nd period (i.e. from 12/2000 to 12/2001). Similar results are obtained for different periods.

Hedge Funds in the Investment Process

Style Timing

- Style allocation is probably more important than manager selection.
 - See Amenc and Vaissié (2006).
 - Predictability of Alternative Betas, see Amenc, El Bied and Martellini (2003)



*R²s from RBSA for 341 funds of hedge funds in the AAC data base (with a total AUM over 80 billion dollars), Average: **59%***

Implementation

Investment Vehicles

- Investment vehicles have evolved according to the requirements of institutional investors

	Standard solutions		Semi-customized solutions		Fully customized solution
	Composite Index	Diversified FoHF	Style Index	Specialized FoHF	Single Hedge funds
Alpha Management	-	+	+/-	+	+++
Beta Management	-	-	+++	+	+/-

Alpha management requires investment vehicles that generate outperformance

Beta management requires investment vehicles that provide representative and stable betas

Implementation

Representativity of Indices

- Lack of representativity is a serious concern for investors because it makes their HF portfolio performance become more a function of biases in index construction than the result of allocation decisions.

Monthly Return Differential between the Different Indices Available on the Market

Investment Styles		Max differences (with dates and indices)
Convertible Arbitrage	7.55%	(Dec 01: EACM (-6.93%) / Hennessee (0.62%))
CTA Global	8.28%	(Apr 04: S&P (-8.06%) / Barclay (0.22%))
Distressed Securities	7.75%	(Aug 98: CSFB (-12.45%) / Van Hedge (-4.70%))
Emerging Markets	19.45%	(Aug 98: CISDM (-26.65%) / Altvest (-7.20%))
Equity Market Neutral	5.00%	(Dec 99: Hennessee (0.20%) / Van Hedge (5.20%))
Event Driven	5.37%	(Aug 98: CSFB (-11.77%) / S&P (-6.40%))
Fixed Income Arbitrage	7.96%	(Oct 98: Hennessee (-8.56%) / Van Hedge (-0.60%))
Funds of Funds	8.01%	(Dec 99: CISDM (2.41%) / Altvest (10.42%))
Global Macro	14.17%	(Oct 98: CSFB (-11.55%) / Altvest (2.62%))
Long/Short Equity	9.51%	(Feb 00: Altvest (3.50%) / CSFB (13.01%))
Merger Arbitrage	3.18%	(Jan 99: CSFB (-1.51%) / Altvest (1.67%))
Relative Value	13.34%	(Oct 98: S&P (-6.90%) / HF Net (6.44%))
Short Selling	21.13%	(Feb 00: Van Hedge (-24.30%) / EACM (-3.17%))

Source: EDHEC Risk

From January 1998 through December 2005

Implementation

Investability of Indices

Overview of Major Investable Hedge Fund Indices

Index Provider	Launch date	Strategy / Fund Weighting	Nbr of funds in the index	Rebalancing Frequency	Pricing Frequency
CSFB/Tremont	aug-03	V.W. / V.W.	60	Semi annually	Monthly
Dow Jones	nov.-03	n.a. / E.W.	35	Quarterly *	Daily
FTSE	apr.-04	I.W. / I.W.	40	Annual **	Daily
HFRX	mar-03	V.W / *	n.a.**	Quarterly	Daily
MSCI	jul.-03	Adj. Median Asset Weighted / E.W.	110	Quarterly	Daily
S&P	may-02	E.W. / E.W.	40	Annual ***	Daily

* Fund weightings are optimized to maximize correlation with their group.

**Optimal number of funds for strategy replication is determined through Monte Carlo simulation

* Additions or deletions can occur without notice at the complete and absolute discretion of Dow Jones.

** Funds may be added/deleted more frequently in response to changing market conditions or fund specific events.

*** Annual at the strategy level and periodically at the fund level.

- In 2004, Edhec provided a methodology to construct investable indices that maintain the representativity and purity properties.

Motivation for survey

Background:

- Considerable changes in the hedge fund industry
- May be linked to arrival of institutional investors

Results:

- What are the current opinions and expectations of institutional investors?

From Margins to Mainstream

Hedge funds and institutional investors

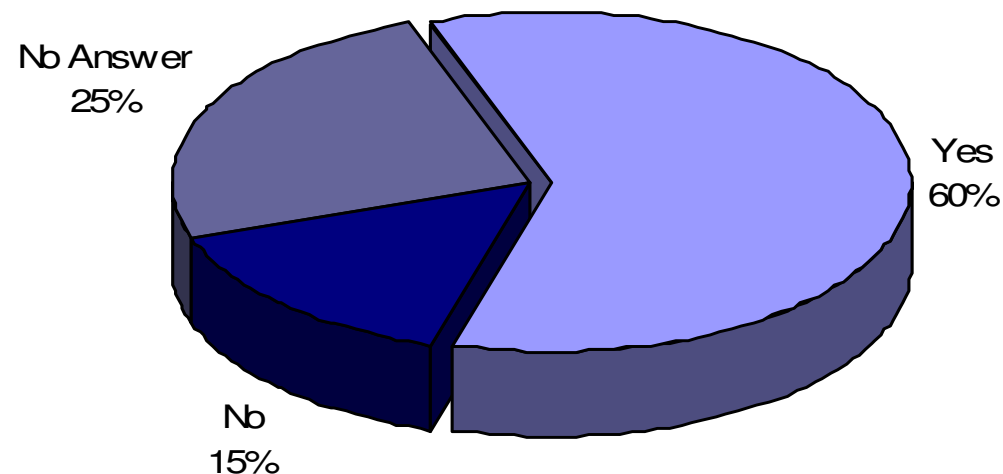
- In the aftermath of the bursting of the Internet bubble, institutional investors have once again faced the limits of traditional diversification. They therefore considered alternative diversification.
- However, hedge fund strategies are significantly more sophisticated than the buy-and-hold strategy typically followed in the traditional world. Integrating hedge fund strategies in institutional investors portfolio is therefore not a trivial task.

From Margins to Mainstream

The nature of the beast

- Institutional investors now dispose of a better understanding of the alternative arena

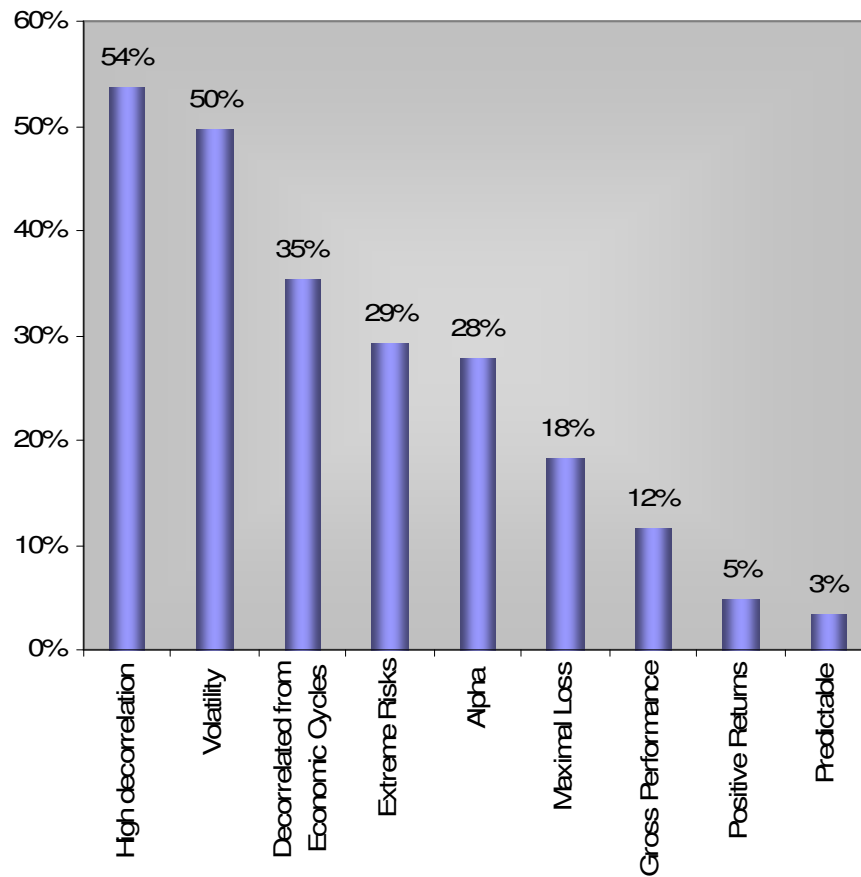
In the area of risk, do you consider that you are well informed as to its nature?



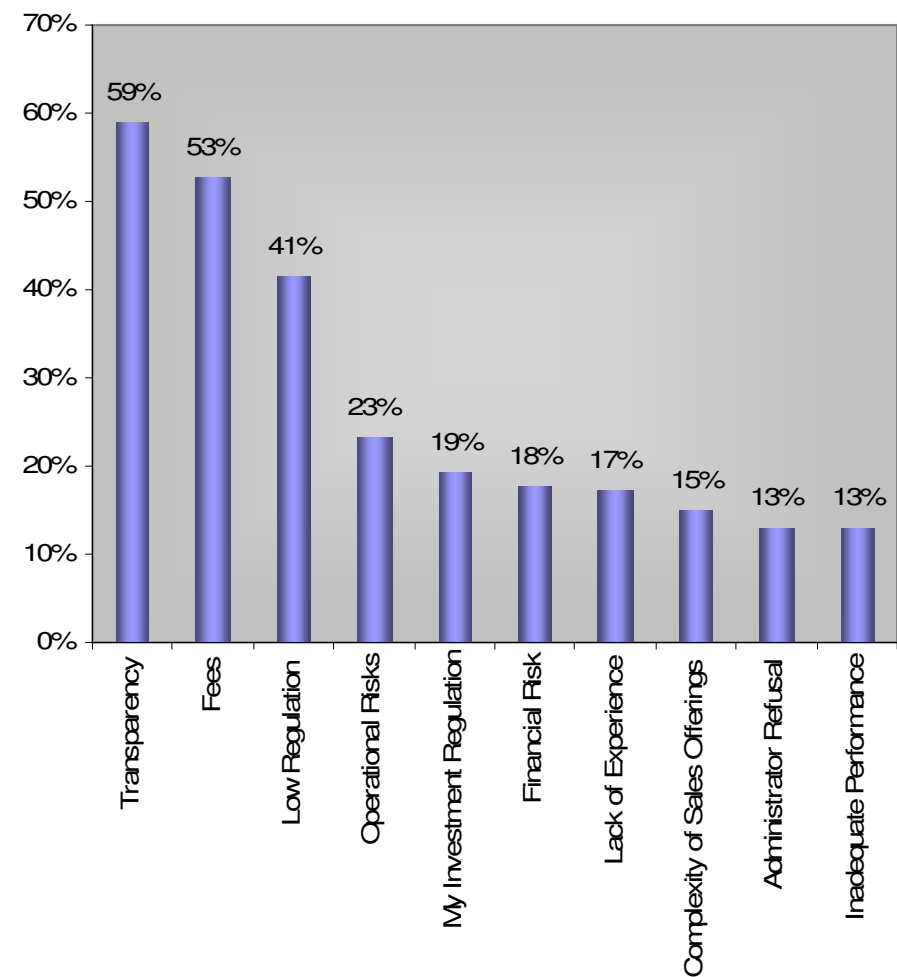
From Margins to Mainstream

The pros and cons of hedge fund investing

The pros of hedge fund investing



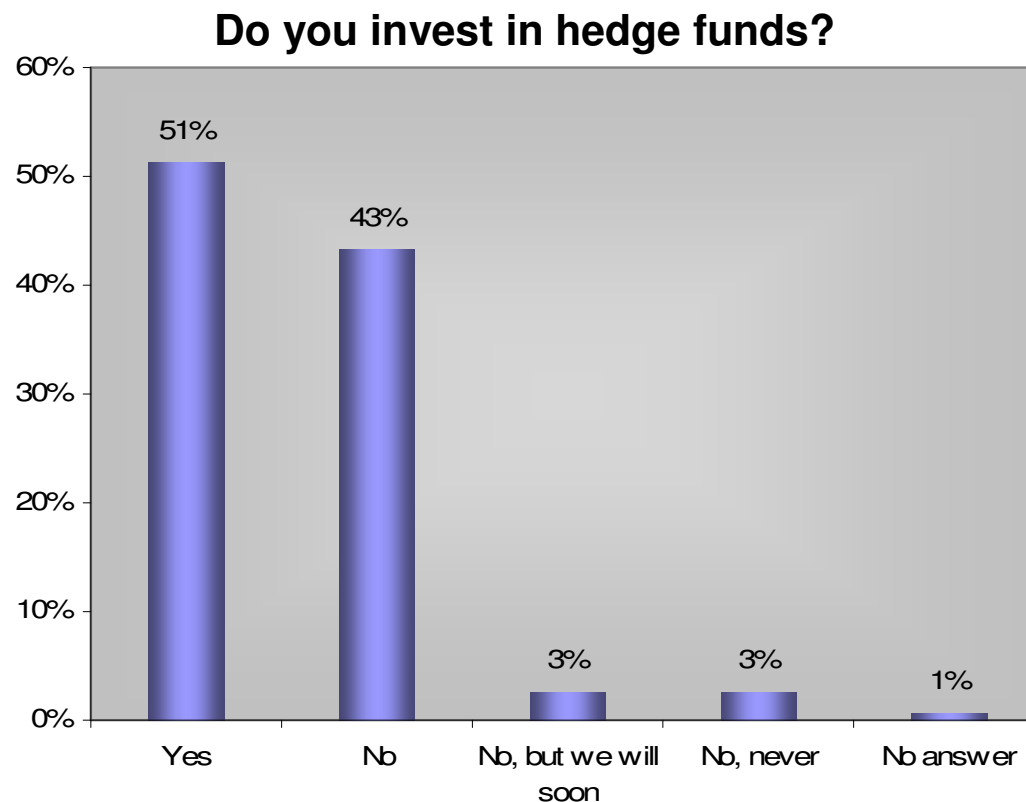
The cons of hedge fund investing



From Margins to Mainstream

Hedge funds in institutional investors' portfolios

- A majority of institutional investors have already gained exposure to hedge fund strategies

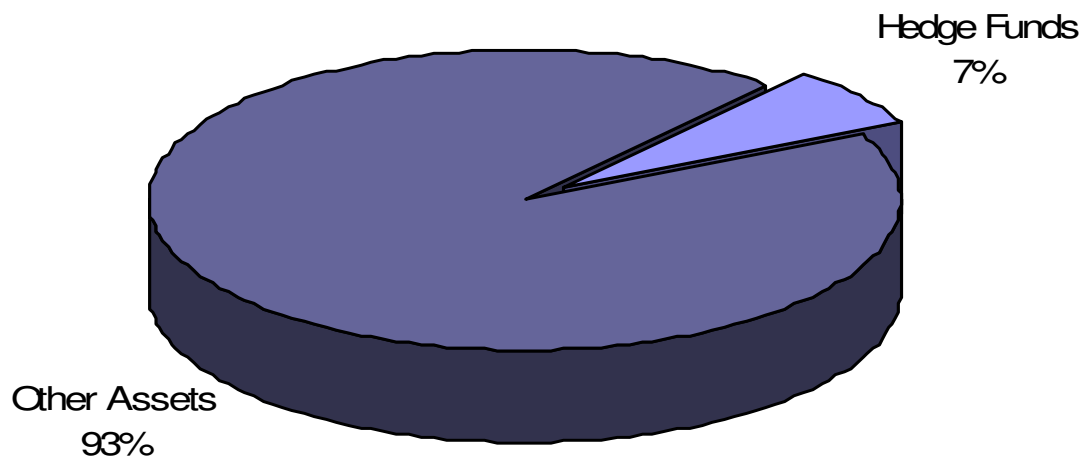


From Margins to Mainstream

Hedge funds in institutional investors' portfolios

- Hedge funds now represent a significant proportion of institutional investors' global assets

What percentage of your overall assets is invested in hedge funds?



From the Satellite to the Core Portfolio

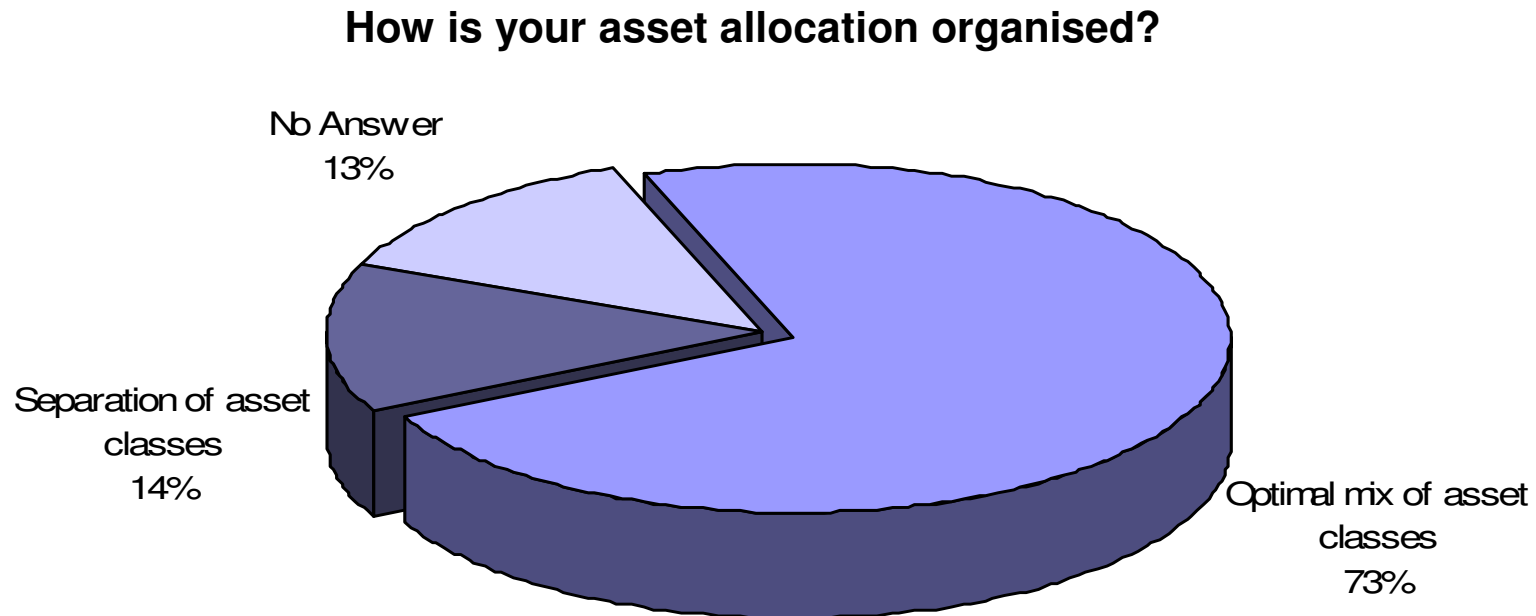
The organisation of the investment process

- Asset allocation typically involves finding the optimal mix of asset classes corresponding to the investor's preferences
- Core/Satellite management is a modern approach to investment that consists of separating out beta management (i.e., choice of the benchmark), and alpha management (i.e., management of active risk)
- Core/Satellite management offers several advantages over traditional asset allocation approaches (i.e., lower fees, expertise of specialized managers, improved risk management)

From the Satellite to the Core Portfolio

The organisation of the investment process

- The bulk of institutional investors manage an optimal mix of asset classes

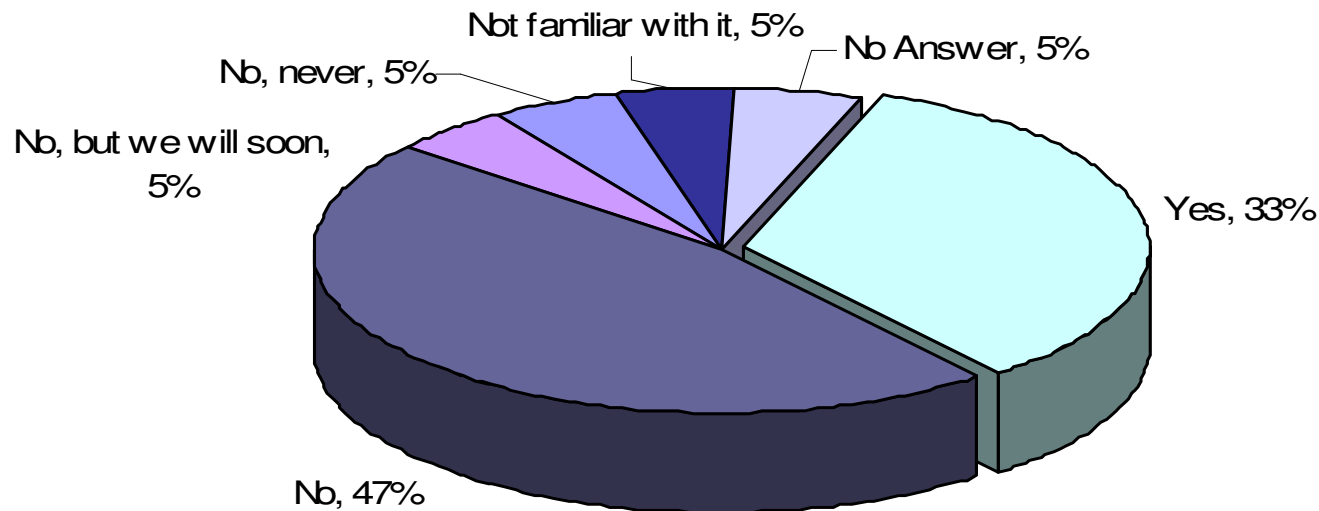


From the Satellite to the Core Portfolio

The organisation of the investment process

- A significant proportion of institutional investors now implement Core/satellite type organisation of their allocation

Have you implemented Core/satellite type organisation of your allocation?



From the Satellite to the Core Portfolio

The place of hedge funds in institutional investors' portfolios

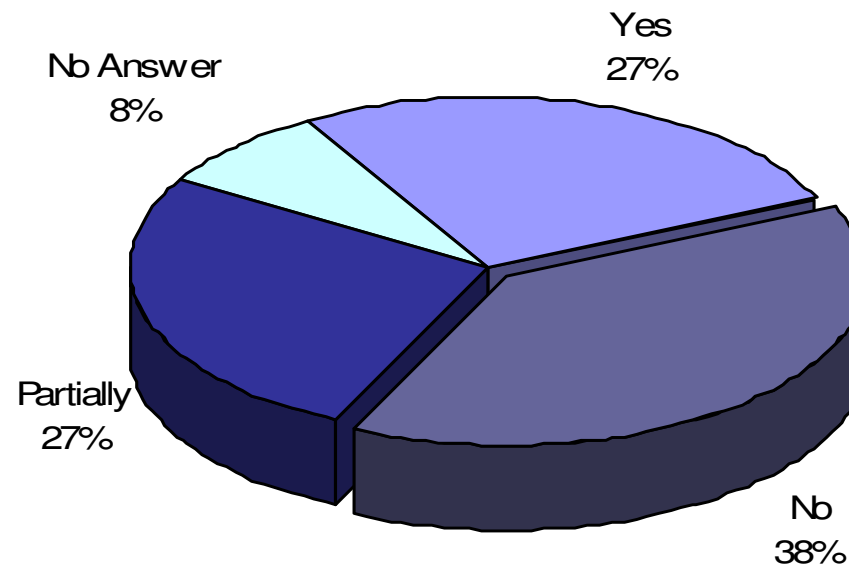
- Hedge funds present both alpha and beta benefits and they are, as a result, theoretically eligible for both the Core portfolio and the Satellite of institutional investors
- However, hedge funds have historically been considered for integration in the Satellite of institutional investors

From the Satellite to the Core Portfolio

The place of hedge funds in institutional investors' portfolios

- A significant proportion of institutional investors associate the Core portfolio with their liabilities

In the case of Core/satellite allocation, do you associate the core with the passive side?

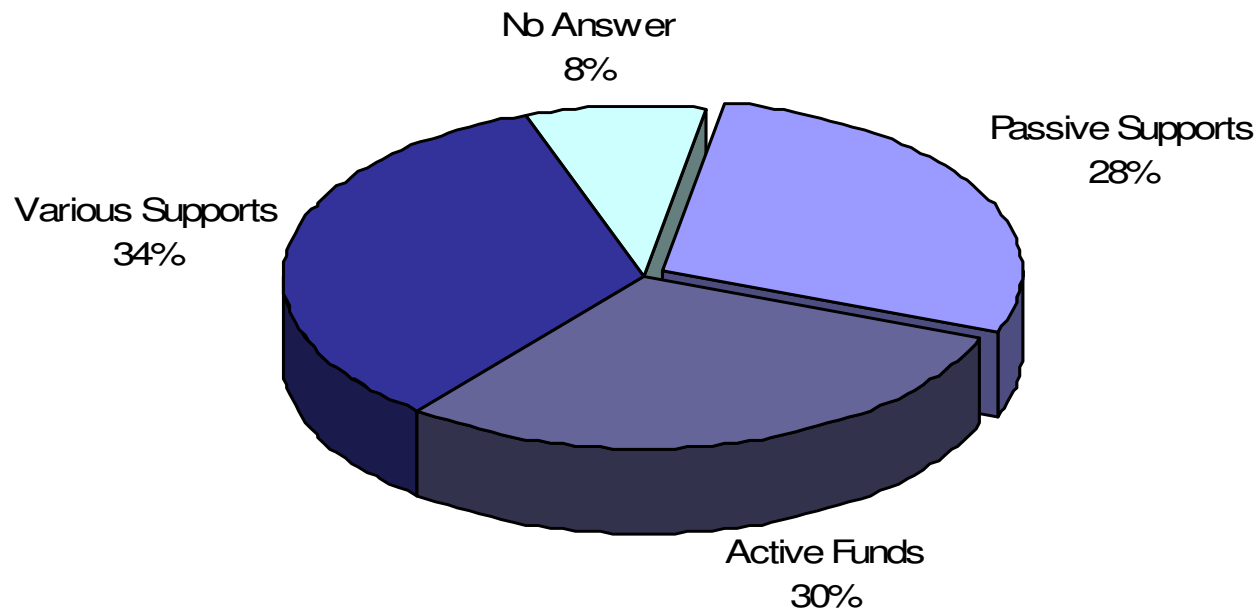


From the Satellite to the Core Portfolio

The place of hedge funds in institutional investors' portfolios

- Hedge funds are liable to play a central role in the Asset / Liability Management of institutional investors

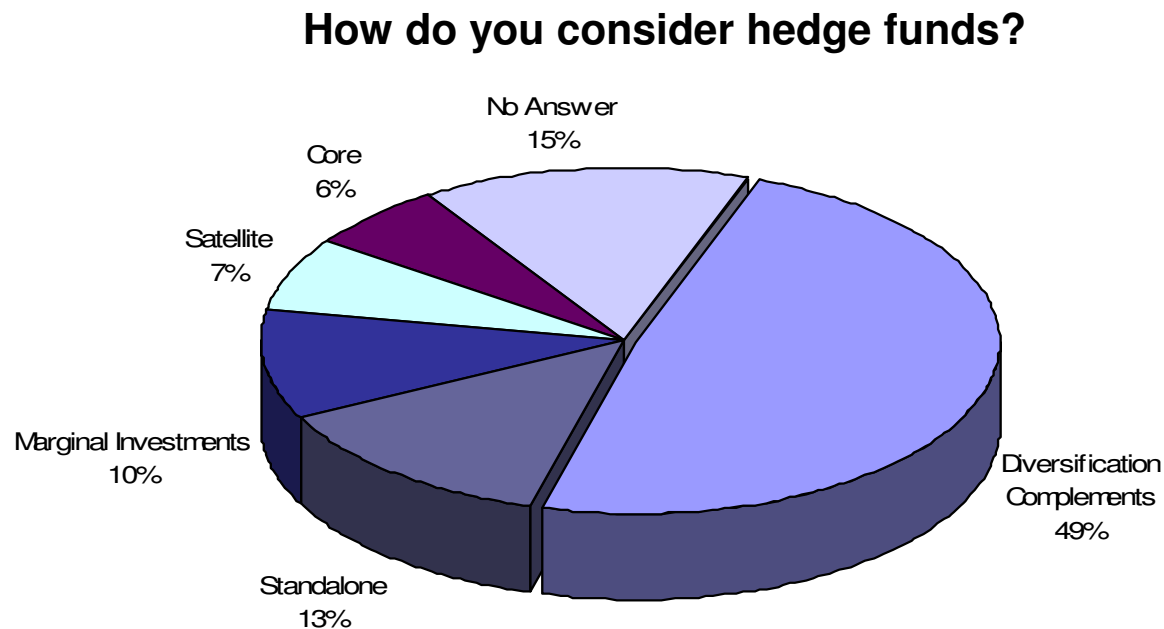
Is the Core of your allocation principally made up of:



From the Satellite to the Core Portfolio

The place of hedge funds in institutional investors' portfolios

- A significant proportion of institutional investors invest in hedge funds for their beta benefits



Investment Ideology Needs to Be Clearly Defined

Optimal diversification vs. Optimal substitution

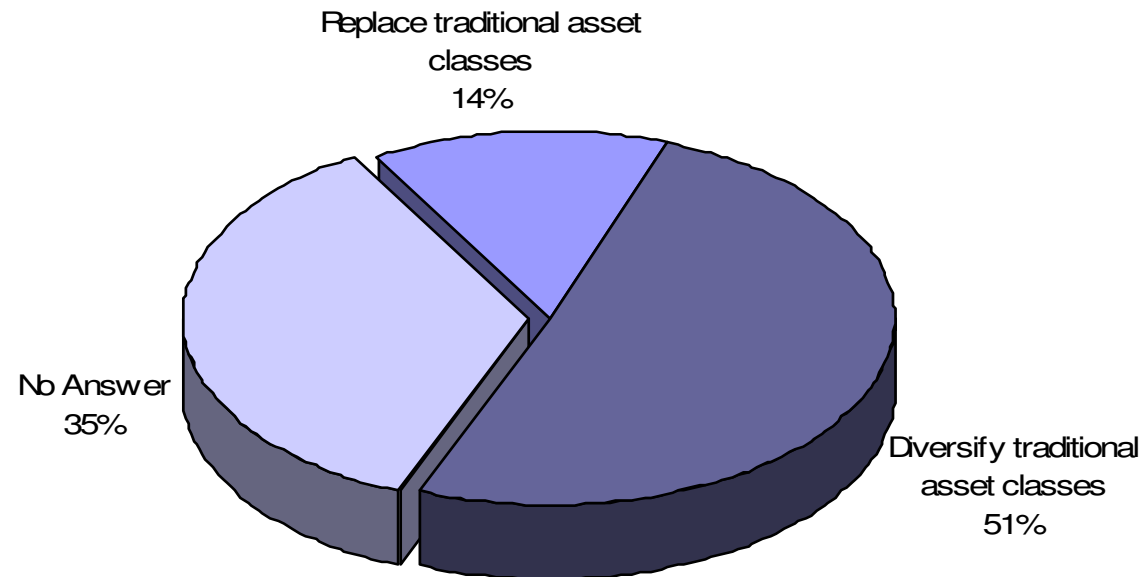
- Optimal diversification consists of selecting the hedge fund strategies that show the highest degree of complementarity with their initial allocation (i.e., risk reducers)
- Optimal substitution consists of selecting the hedge fund strategies that show the highest degree of commonality with their initial allocation (i.e., return enhancers)

Investment Ideology Needs to Be Clearly Defined

Optimal diversification vs. Optimal substitution

- A significant proportion of institutional investors still have to define their investment ideology

If you wish to integrate hedge funds into your asset allocation, do you think that they are meant to:



Investment Ideology Needs to Be Clearly Defined

Standard solutions vs. Customized solutions

- Fully Customized Solutions

- Target: Sophisticated investors with sufficient resources and experience in the alternative arena
- Investment vehicle: Single hedge funds

- Semi-Customized Solutions

(the fund selection process is delegated)

- Target: Sophisticated investors with limited resources and/or no experience of the alternative arena
- Investment vehicle: Specialized fund of hedge funds or pure style index

- Standard solutions

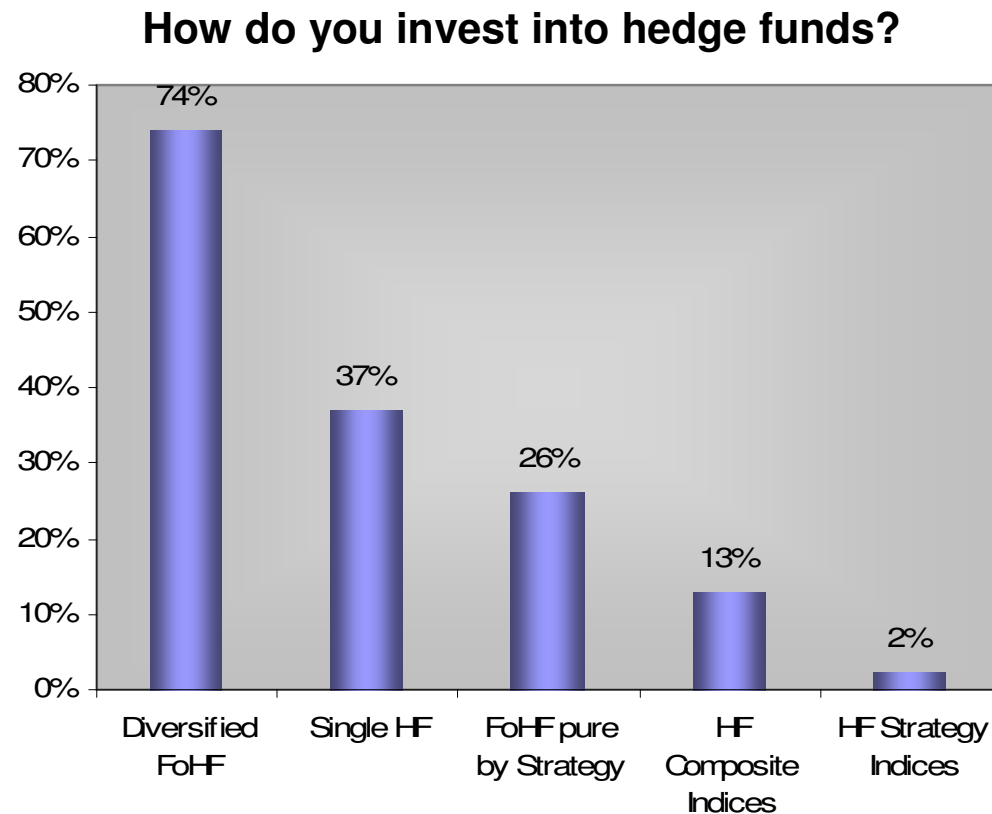
(the asset allocation and the fund selection processes are delegated)

- Target: Unsophisticated investors
- Investment vehicle: diversified fund of hedge funds or composite index

Investment Ideology Needs to Be Clearly Defined

Standard solutions vs. Customized solutions

- Institutional investors majoritarily invest through standard solutions



Inefficient Integration of Hedge Fund Strategies

Allocation vs. Structuring

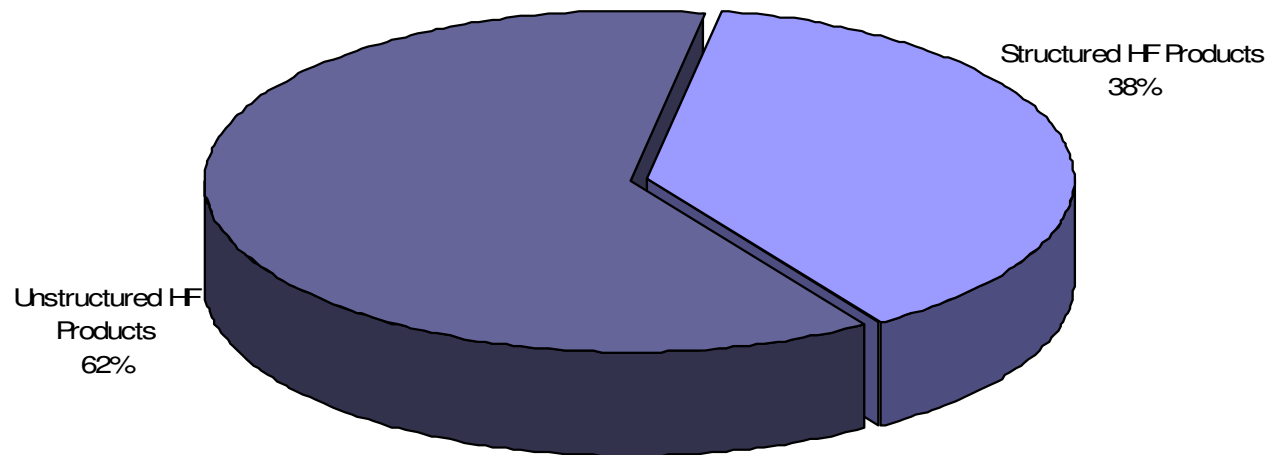
- Allocation consists of controlling downside risk through proper risk management procedures
 - The investor does not eliminate downside risk, but in exchange he remains fully exposed to the upside potential
- Structuring consists of buying a protection against downside risk
 - The investor eliminates downside risk, but in exchange he has to forego part of the upside potential

Inefficient Integration of Hedge Fund Strategies

Allocation vs. Structuring

- Most institutional investors prefer to remain exposed to downside risk rather than foregoing a part of the upside potential

What is the percentage of your hedge fund investments that has been subject to structuring?

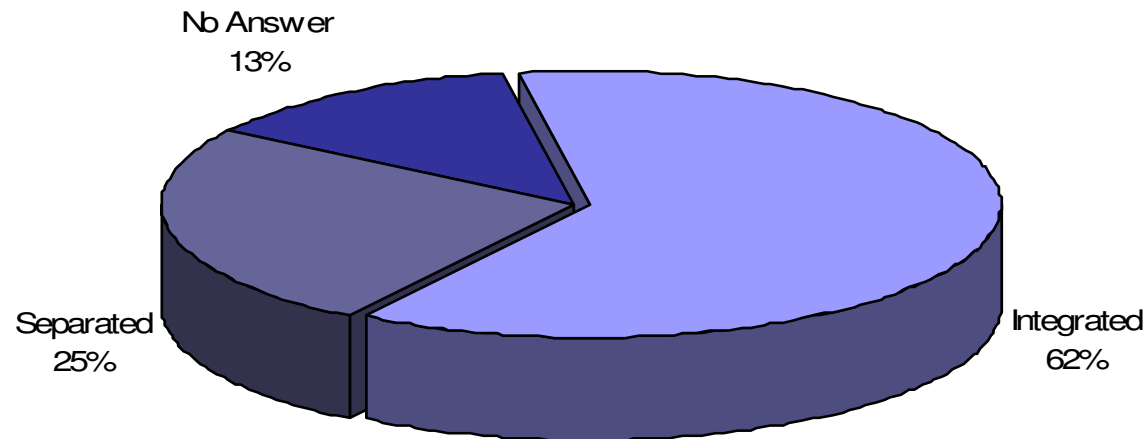


Inefficient Integration of Hedge Fund Strategies

Asset allocation practices

- Hedge funds are now integrated in institutional investors' global asset allocation

Do you manage an allocation process that is separate from or integrated with the other asset classes to decide on your investments in hedge funds?

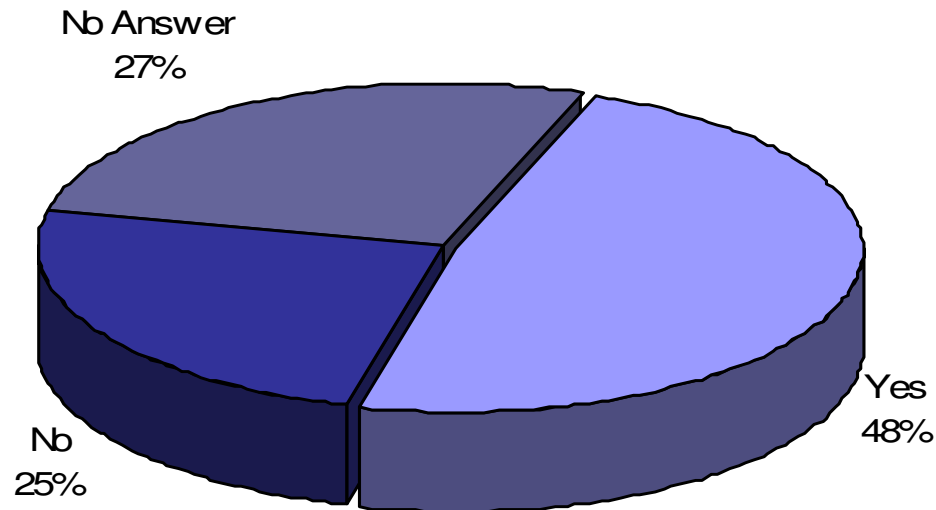


Inefficient Integration of Hedge Fund Strategies

Asset allocation practices (cont'd)

- A significant proportion of institutional investors still do not know how to deal with hedge fund risks

In the area of risk, do you consider that you are capable of integrating hedge fund risks in a global analysis of the risks of your assets ?

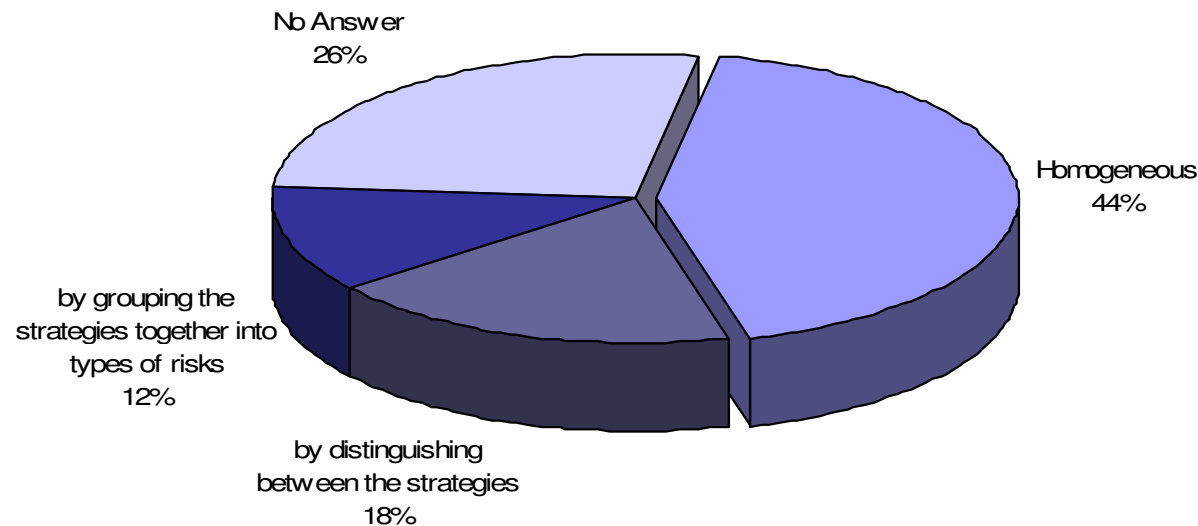


Inefficient Integration of Hedge Fund Strategies

Asset allocation practices (cont'd)

- A significant proportion of institutional investors tap hedge funds beta benefits in a sub-optimal way

If you carry out a global allocation, how do you take hedge funds into account?

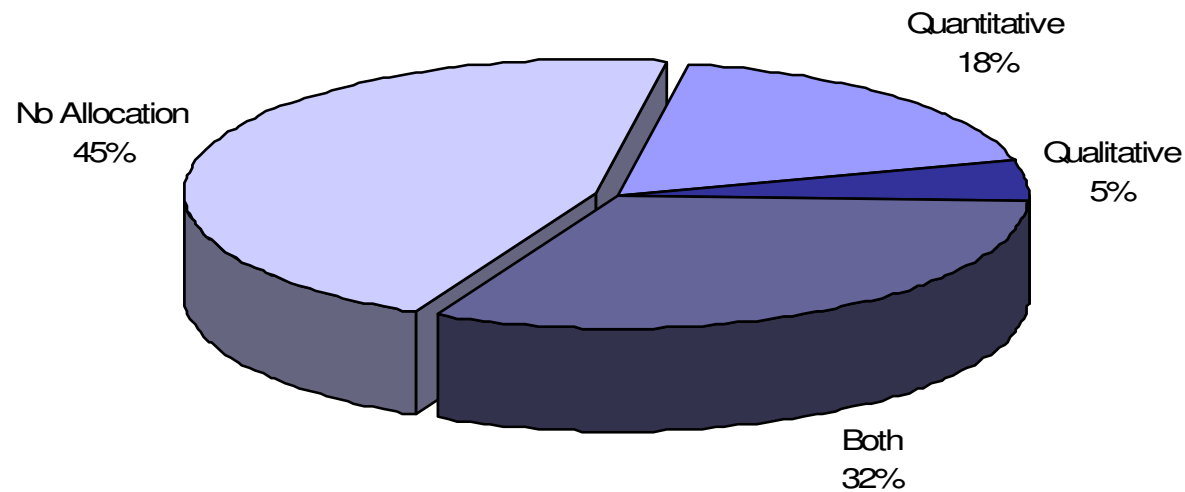


Inefficient Integration of Hedge Fund Strategies

Asset allocation practices (cont'd)

- A significant proportion of institutional investors simply have no investment policy

To compose your fund of hedge funds allocation, do you tend to favour:



In Search of Relevant Information

Transparency vs. Opacity

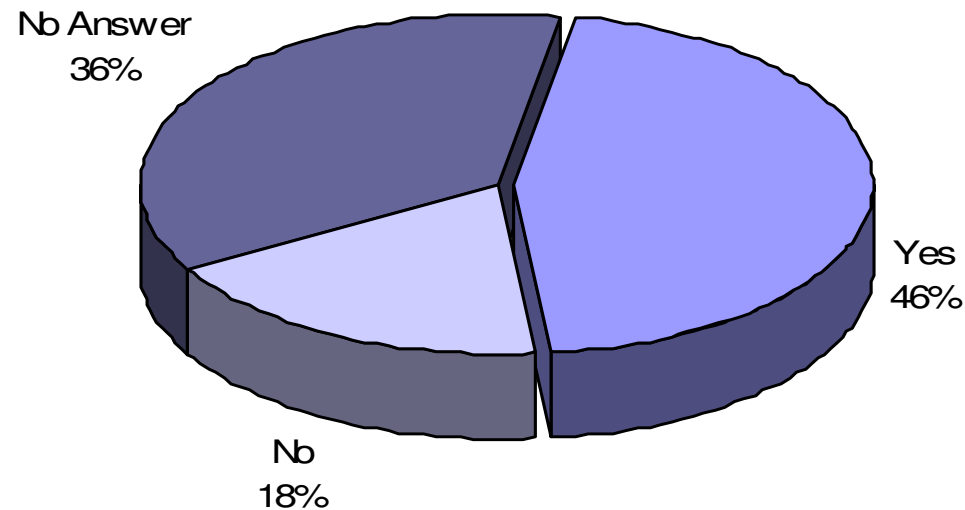
- Activity reports are a privileged means of communication between fund managers and investors
- However, investors and fund managers often show conflicting goals, defining the content of the activity report is thus a challenging task
- Relevant information can be defined as the minimum level of information investors need to be able to properly monitor and control the risks of their investments

In Search of Relevant Information

A need for improved activity reports

- Information provided by investors is not sufficient

In the area of risk, do you consider that you are capable of monitoring it through the reports provided by your managers or multimangers?



In Search of Relevant Information

A need for improved investor education

- The dependence of institutional investors on information disclosed in activity reports is worrying

In the area of risk, do you consider that you are capable of carrying out risk analysis on the investments independently from that provided by your managers?

