

# Alternative Betas & Hedge Fund Replication

Measuring, Optimizing, and Replicating Hedge Fund Betas

New York – October 16 – Grand Hyatt

seminar

Alpha and Beta Benefits of Hedge Fund Investing

Traditional and Alternative Beta Exposure  
of Hedge Fund Strategies

Beta Measurement: Challenges and New Frontiers

Hedge Funds for Optimal Substitution and Risk Diversification

Hedge Funds in Asset and Asset-Liability Management

Dynamic Management of Alpha and Beta Risk Budgets

Hedge Fund Indices and Alternative Beta Trackers

Hedge Fund Replication: Approaches and Techniques

Benefits and Limits of Synthetic Hedge Fund Products

endorsed by



**EDHEC**  
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Education

***Empirical research shows that exposure to fundamental sources of risk rather than sheer talent is the main force driving hedge fund returns.***

***Under the impetus of institutionalization, heroic tales of alpha generation have given way to scientific assessment of the beta characteristics of hedge funds, and "passive" forms of alternative investment have started to emerge.***

***To adapt to this new paradigm, fund managers, investors and advisors need to identify, measure and optimize the beta benefits of hedge funds and to evaluate the merits and limits of indices and replication offers.***

Fuelled by massive investments on the part of funds of funds and institutions, hedge funds have grown from a cottage industry catering to the needs of private wealth to a trillion dollar business in which over 10,000 managers vie for the attention of global institutional investors. The significance of alternative investments within institutional portfolios is imposing new responsibilities and challenges upon hedge funds, funds of funds and investors.

Formerly presented as alpha add-ons, hedge funds are increasingly accepted as indispensable portfolio building blocks on the strength of their beta characteristics. In this environment, successful players will be those who are able to advise investors on how to optimally incorporate alternative investments into their core and satellite portfolios.

While investable hedge fund indices have been around since 2002, the current wave of alternative beta trackers is presented as marking a new milestone in the institutionalization of the industry. Cloning initiatives are meant to enable investors to achieve returns similar to those of hedge funds with significantly lower fees through investment in rules-based replication strategies involving liquid underlying assets. A typical hedge fund clone attempts to track the systematic factor exposure in hedge fund returns rather than generate alpha.

Evidence that performance of the average hedge fund is explained mainly by dynamic exposure to risk factors means that a disciplined approach to beta management is called for. It also suggests that alternative managers who want to thrive along investable indices and hedge fund clones need to understand the merits and limits of replication techniques and to deliver added-value by optimizing the beta benefits of hedge funds within asset management and ALM solutions.

Designed by a leading expert in the theory and practice of hedge fund investing, this intensive seminar equips participants with a workable knowledge of the state of the art techniques for identifying, measuring and optimizing hedge fund benefits both at the fund level and for end-investors.

Presented in a highly accessible manner and drawing on the latest results of the alternative investment research conducted within the EDHEC Risk and Asset Management Research Centre, the Alternative Betas and Hedge Fund Replication seminar is designed for fund of hedge funds managers, investment officers and administrators working for institutional investors, and consultants and key account representatives advising high net worth investors and institutions on hedge fund matters.

**P**rofessor Lionel Martellini will present a novel approach to hedge fund investing and detail the associated techniques for identifying, measuring, and optimizing the beta benefits of hedge funds. Since these methods are compatible with the core-satellite model and can be implemented within an Asset-Liability Management framework, the seminar will prove particularly relevant for managers and advisers catering to the needs of institutional investors.

Featuring an in-depth discussion of hedge fund cloning techniques, introducing the results of independent tests of alternative beta replication, and suggesting directions for the next generation of index trackers, the seminar should also appeal to practitioners interested in emerging forms of liquid and "passive" alternative investment.

## CONTENT

- What are the alpha and beta benefits of hedge fund investing?
- How to identify, measure, and maximize the beta benefits of hedge funds
- How to select hedge fund strategies and take into account higher moments to achieve optimal diversification
- What are the benefits of hedge funds in an ALM framework?
- How can hedge funds be used as optimal substitution vehicles?
- How to implement dynamic management of the alpha and beta risk budgets
- How to analyse the diversity of hedge fund replication offers
- Can synthetic hedge fund products deliver and what is there to be learned from hedge fund cloning techniques?
- What are the implications of alternative beta trackers for hedge funds, funds of funds, and end-investors?
- How to package hedge fund alphas and betas for institutional investors



## OUTLINE

### *Understanding and Measuring Hedge Fund Betas*

- Alpha versus Beta Benefits of Hedge Funds
- Traditional and Alternative Beta Exposures of Hedge Fund Strategies
- Challenges in Hedge Fund Beta Measurement: Static vs. Dynamic Betas, Linear and. Nonlinear Betas
- Higher Moment Betas: Definition and Measurement

### *Maximizing the Beta Benefits of Hedge Funds – An Overview*

- Hedge Funds and the Core-Satellite Approach
- Return Enhancement versus Risk Reduction Benefits
- Hedge Funds as Diversification as opposed to Substitution Vehicles
- Hedge Funds in Asset Management versus Hedge Funds from an Asset Liability Management Perspective

### *Beta Benefits of Hedge Funds – Optimal Risk Diversification*

- Selecting Hedge Fund Strategies
- From Covariance to Co-skewness and Co-kurtosis Benefits
- Challenges in Optimal Beta Management
- Hedge Funds in ALM

### *Beta Benefits of Hedge Funds – Optimal Substitution*

- Optimal Use of Alternative Beta Sources
- Dynamic Management of Beta and Alpha Risk Budgets
- An Example of Application

### *Beta Benefits of Hedge Funds – Hedge Fund Replication*

- Active and Passive Hedge Fund Indices
- Factor-based Replication Models versus Payoff Distribution Approach
- Hedge Fund Clones: What Works and What Does Not
- Robustness of Hedge Fund Replication Models
- Techniques for the Next Generation of Clones: Non-linear and Conditional Factor Models

### *Putting the Pieces Together*

- Aligning Satellite and Core Portfolio Factor Exposures: Manager Optimization versus Completeness Portfolio Approach
- From Delivery to Packaging of Hedge Fund Alpha
- Portable Alpha and Portable Beta Strategies

## SEMINAR LEADER



**Lionel Martellini** is Professor of Finance at EDHEC Business School and the Scientific Director of the EDHEC Risk and Asset Management Research Centre.

Recent centre production co-authored by Lionel Martellini includes: *The Myths and Limits of Passive Hedge Fund Replication*, *The Benefits of Hedge Funds in ALM*, *Investing in Hedge Funds: Adding Value through Active Style Allocation Decisions*, and *Hedge Fund Indices: Reconciling Investability and Representativity*.

He has served as a consultant for various institutional investors, investment banks and asset management firms both in Europe and in the United States on questions related to risk management, alternative investment strategies, and asset allocation decisions in the absence and in the presence of liability constraints and performance benchmarks.

His research has been published in leading academic and practitioner journals including *Management Science*, *The Review of Financial Studies*, *European Financial Management*, *Financial Analysts Journal*, and *Risk*. He sits on the editorial board of the *Journal of Portfolio Management* and *the Journal of Alternative Investments*.

Lionel has co-authored and co-edited reference texts on fixed-income management and contributed to eight books on portfolio construction, risk management, fixed income securities, hedge funds, and commodity trading advisors. He is regularly invited to deliver presentations at leading academic and industry conferences.

Prior to joining EDHEC Business School in 2003, Lionel Martellini was a faculty member at USC Marshall School of Business.

He holds graduate degrees in business administration, economics, statistics and mathematics, as well as a PhD in Finance from the Haas School of Business at UC Berkeley.

### The Myths and Limits of Hedge Fund Replication

Noël Amenc, Walter Géhin, Lionel Martellini and Jean-Christophe Meyfredi

EDHEC Publication, EDHEC Risk and Asset Management Research Centre, June 2007

Each participant will receive a printed copy of EDHEC's hedge fund replication survey. The study may be purchased separately at a cost of \$1,000 per copy.

Attendance Fees: \$1,500

Fees include documentation, refreshments, lunch and drinks

Location: Grand Hyatt New York

109 East 42<sup>nd</sup> Street at Grand Central Station - New York



### THREE EASY WAYS TO REGISTER

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EDHEC Asset Management Education is registered with CFA Institute as an Approved Provider of professional development programs. This program is eligible for 7 PD credit hours as granted by CFA Institute.

With over 100 permanent professors and researchers and over 4,700 students spread over three campuses in Lille, Nice and Paris, the EDHEC Group is the largest provider of business education in France and one of the leading business schools in Europe. EDHEC Business School has been offering management training and development programmes since 1906 and is a member of the select group of academic institutions worldwide to have earned the triple crown of international accreditations (AACSB, EQUIS, AMBA).



EDHEC Business School set up the Risk and Asset Management Research Centre to conduct world-class academic research and highlight its applications to the industry. The centre's team of 35 researchers carries out six industry-sponsored programmes focusing on asset allocation and risk management in the traditional and alternative investment universes. In keeping with its mission, the centre systematically seeks to validate the academic quality of its research through publications in leading scholarly journals, implements a multifaceted communications policy to inform investors and asset managers on state-of-the-art concepts and techniques, and develops business partnerships to launch innovative products.

To optimise exchanges between the academic and business worlds, the Risk and Asset Management Research Centre maintains a website devoted to asset management research for the industry: [www.edhec-risk.com](http://www.edhec-risk.com), circulates a monthly newsletter to circa 100,000 practitioners, conducts regular industry surveys and consultations, and organises annual conferences for the benefit of institutional investors and asset managers.

EDHEC has also created a consultancy, EDHEC Investment Research, and a continuing-education arm, EDHEC Asset Management Education. EDHEC Asset Management Education helps investment professionals to upgrade their skills with advanced risk and asset management training across traditional and alternative classes.



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