



Vincent Milhau, PhD

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Vincent Milhau is Deputy Scientific Director of EDHEC-Risk Institute. He is advisor for research projects related to portfolio optimization and asset-and-liability management. He is also in charge of validating the quantitative models and algorithms developed at EDHEC-Risk Institute and EDHEC-Risk Indices and Benchmarks. His research focuses on portfolio choice for institutional or private investors and asset-and-liability management.

EDUCATION

- 2006 – 2009 **PhD in Business Studies**, University of Nice, Finance.
- 2003 – 2006 **M.S.**, ENSAE (Paris), Statistics, Finance, Actuarial Science.
- 2005 – 2006 **M.S.**, Université Paris VII (Paris), Stochastic Modelling, Finance.
- 2003 – 2005 **B.S.**, Université Paris VI (Paris), Mathematics.

PROFESSIONAL NON-TEACHING EXPERIENCE

- 2011 – Present EDHEC-Risk Institute (Nice), Deputy Scientific Director.
Responsible for several projects related to research chairs funded by external partners. Fields include: portfolio optimization for institutional investors, life-cycle investing for private investors, optimal management of corporate debt, asset-and-liability management for pension funds...
Direct contributions to these projects, and management of dedicated research staff.
Advisory role on quantitative aspects of projects managed by EDHEC-Risk Institute (ERI) or EDHEC-Risk Indices and Benchmarks (ERIB). Example: development of new forms of indices.
Involved in training of newly hired research staff.

- 2009 – 2011 EDHEC-Risk Institute (Nice), Senior Research Engineer.
Direct contributions to research projects managed by ERI, in particular research chairs in the fields of asset-and-liability management for institutional or private investors and dynamic portfolio optimization.
Contributions included: conception of models used in research papers, mathematical and numerical aspects of the models, writing articles.
Also involved in training of newly hired research staff.
- 2006 – 2009 EDHEC-Risk and Asset Management Research Centre (Nice), Research Engineer.
Involved in computational tasks related to various research projects, in particular research chairs in the field of asset-and-liability management.
Contributions included: mathematical derivation of solutions to portfolio choice problems, numerical implementation of these solutions, and implementation of Monte-Carlo simulators.

PROFESSIONAL TEACHING EXPERIENCE

- 2010 *Financial Modeling in Matlab* (graduate level), MSc in Financial Economics, EDHEC Business School.
- 2009 *Financial Modeling in Matlab* (graduate level), MSc in Financial Economics, EDHEC Business School.

PUBLICATIONS

Published and Forthcoming Papers

- ❖ “Option Pricing and Hedging in the Presence of Cross-Hedge Risk”, with Lionel Martellini. Forthcoming in *Bankers, Markets and Investors*.
- ❖ “Towards the Design of Improved Forms of Target-Date Funds”, with Lionel Martellini. *Bankers, Markets and Investors* 109, Nov.-Dec. 2010.
- ❖ “Asset-liability management in private wealth management”, with Noël Amenc, Lionel Martellini and Volker Ziemann. *Journal of Portfolio Management* 36(1), Fall 2009.
- ❖ “From Deterministic to Stochastic Life-Cycle Investing. Towards new forms of target date funds”, with Lionel Martellini. *Banque & Stratégie*, 272, Juil.-Août 2009.

Working Papers

- ❖ “Life-Cycle Investing for Individual Investors – When Wall Street Meets Main Street”,
with Romain Deguest and Lionel Martellini.
- ❖ “Hedging vs Insurance: Long-Term Investing with Short-Term Constraints”,
with Romain Deguest and Lionel Martellini.
- ❖ “Option Pricing and Hedging in the Presence of Basis Risk”,
with Lionel Martellini.
- ❖ “Dynamic Allocation Decisions in the Presence of Funding Ratio Constraints”,
with Lionel Martellini. **This paper was awarded the First Prize 2009/2010 from the Quantitative Investment Research (Inquire) Europe.**
- ❖ “Capital Structure Choices and the Optimal Design of Corporate Market Debt Programs”,
with Lionel Martellini.
- ❖ “Capital Structure Choices, Pension Fund Allocation Decisions and the Rational Pricing of Liability Streams”,
with Lionel Martellini.
- ❖ "Optimal Decisions in (Asset and) Liability Management",
with Lionel Martellini.

Featured in the Press

- ❖ “Improving Life-Cycle Funds”,
with Lionel Martellini, *Financial Times*, September 28, 2009.
- ❖ “Short-Term Constraints in a Long-Run Horizon”,
with Lionel Martellini, *Financial Times*, April 20, 2009.

RESEARCH INTERESTS

- Portfolio choice
- Asset and liability management (ALM)
- Stochastic calculus applied to asset pricing and asset allocation
- Credit risk modelling
- Model calibration