

IFBL / PRiM

Training Programme in Financial Risk Management

Worldwide the FRM® examination offered by GARP (Global Association of Risk Professionals) is a major milestone in each Risk Manager's career.

For several years now, IFBL and PRiM jointly organize a high-caliber training programme designed to provide an optimal preparation to those who aspire to register for this specific examination.

In response to evolving global markets, and in recognition of the growing complexities associated with the profession of financial risk management, GARP has recently changed its approach in the way that they now propose the examination in two parts: Level 1 and Level 2.

Exam sessions for both levels will now take place twice a year – in May and in November. Candidates will first have to complete and pass the FRM Exam Level 1 in order to register for Level 2.

Consequently IFBL and PRiM have now updated their offer and as per April 2010 the following courses will be held under the leadership of Prof. Georges Hübner:

- M' FRM Mathematics, Probabilities and Statistics
- M3 FRM Risk Management Level 1

LECTURERS

→ Prof. Georges Hübner

Georges Hübner holds a PhD in Management from INSEAD. He is the Deloitte Professor of Financial Management at HEC Management School - University of Liege. He is also an Associate Professor of Finance at Maastricht University and an Affiliate Professor of Finance at EDHEC (Lille & Nice). He has taught at executive and postgraduate levels in several countries in Europe, North America, Africa and Asia. Georges Hübner has authored several books and peer-reviewed research articles in the fields of hedge funds and derivatives. He also invented the Generalized Treynor Ratio published in the "Review of Finance" in 2005. He was the recipient of the 2002 Iddo Sarnat Award for the best paper published in the "Journal of Banking and Finance" in 2001 and of the Operational Risk & Compliance Achievement Award 2006 for the Best Academic Paper on operational risk, co-written with Yves Crama (HEC-University of Liege) and Jean-Philippe Peters (Deloitte Luxembourg).

→ Dr. Luc Neuberg

Luc Neuberg is a member of the board of PRiM (Professionals of Risk Management, Luxembourg). As such, he is also a leading member in the Quality Circle developing the training offer which PRiM organizes in partnership with IFBL. He holds a PhD in Management (Finance) from FUNDP, Namur, Belgium after graduating as a civil engineer (Mechanics-Physics) at ULG, Liege, Belgium. He is Head of Risk Management of one of the major players in the Luxembourg financial sector. He regularly teaches courses in risk management for IFBL and ATTF and he is a lecturer at University of Metz and University of Nancy. He is co-chairman of the ALFI sub-Working Group Market Risk. He is author of research articles in the field of risk management in collaboration with different universities.



PROGRAMME

M' FRM MATHEMATICS, PROBABILITIES AND STATISTICS

→ Quantitative preparatory 1-day seminar

The 1-day seminar is an optional training programme preparing for Prof. Hübner's subsequent course (M3 FRM Risk Management Level 1). It is designed for a target audience of persons wishing to specialize in risk management but whose quantitative and statistical background needs to be completed or refreshed as well as for all those who are interested in this subject.

→ Objectives:

The main purpose is to cover the necessary mathematics, probability and statistics concepts and techniques to follow Prof. Hübner's course in the best conditions, i.e. to respect its prerequisites. These tools will be reviewed with a focus on their likely applications in financial risk management. A basic knowledge of mathematics and statistics is welcome, however the requirement level in quantitative proficiency is low.

→ Materials:

The seminar will encompass the first three chapters of the following book: Philippe Jorion, Financial Risk Manager Handbook (5th edition 2009), Wiley.

A complete syllabus will be distributed to seminar participants with a list of selected references.

→ Course outline:

1. Mathematics applied to finance: Logarithms, exponentials, derivatives, differential calculus (application to bond fundamentals)

2. Probabilities: Moments of random variables, univariate and multivariate distribution functions (application to asset and portfolio returns)

3. Statistics and regression analysis:

- 3.1 Parameter estimation, confidence intervals and hypothesis testing (application to mean and variance estimation)

- 3.2 Univariate regression, OLS/GLS (application to factor models)

M3 FRM RISK MANAGEMENT LEVEL I

This 5-day master course is designed for a target audience of persons specializing in the field of finance and/or risk management: risk managers, treasurers and traders, risk analysts, portfolio managers as well as all those who are interested in this subject.

Participants in the seminar should have had prior exposure to quantitative methods. At a minimum, they should have a preliminary knowledge in derivatives and fixed income markets.

Ideally, participants whose quantitative background is not sufficient will follow the previous preparation day "M' FRM Mathematics, Probabilities and Statistics". Participants who do not register for the M' preparatory course are asked to provide a short curriculum vitae covering their academic background and work experience.

→ Objectives:

The purpose of this seminar is to provide an overview of financial markets and instruments and to examine general techniques in financial risk management. It will cover the quantitative methods in risk management with a general focus on dealing with most types of risk. The format will involve a mix of presentations, spreadsheet examples and FRM exam questions.

The seminar will focus on risk management techniques and methods, and is not meant to provide a thorough overview of non-technical aspects such as ethics, regulation or case studies.

At the same time, the seminar is fully consistent with the technical contents and objectives of the FRM Level I examination administered in May and November, and provides a suitable preparation for this certification. Only the non-technical exam topics are not covered in the seminar.

Please note that the forthcoming seminar by Professor Philippe Jorion on advanced risk management will provide a preparation to the FRM Level II examination. Its starting point will be the knowledge and mastery of the Risk Management Level I seminar.

-> Materials:

The seminar will follow the structure of the following book, revised for 2009: Philippe Jorion, Financial Risk Manager Handbook (5th edition), Wiley, chapters 1 to 16.

The book provides the core body of knowledge for financial risk managers. It was designed to provide support for candidates taking the Financial Risk Manager (FRM) examination administered by the Global Association of Risk Professionals (GARP).

Participants who wish to take the FRM exam should complement their knowledge with the help of the FRM study guide list (Level 1), available on the IFBL Website under "Risk Management".

A complete syllabus will be distributed to seminar participants with a list of selected references.

-> Course outline:

1. Foundations of risk management

1.1 Market efficiency and asset pricing models

1.2 Performance measurement and attribution

1.3 Risk management principles and failures

2. Capital markets

2.1 Introduction to derivatives

2.2 Options

2.3 Fixed-income securities

2.4 Fixed-income derivatives

2.5 Equity, currencies & commodities markets

3. Numerical analysis (applications to option pricing)

3.1 State pricing (application to financial binomial trees)

3.2 Brownian motions and Itô processes (application to financial price processes)

3.3 Estimation of volatilities and correlations (application to volatility term structures)

3.4 Monte Carlo simulations (application to interest rate forecasting)

4. Risk modeling and management

4.1 Linear Value-at-Risk (application to market, credit and operational risk)

4.2 Nonlinear Value-at-Risk (application to bonds)

4.3 Interest rate risk (application to duration hedging)

4.4 Credit risk (application to credit risk migration risk)

4.5 Risk management of derivatives (application to convertible risk)

4.6 Stress testing and scenario analysis

PRACTICAL INFORMATION

DURATION

M¹ FRM Mathematics, Probabilities and Statistics

8 hours/17 April 2010

€ 300,-/375,- *

M3 FRM Risk Management Level 1

40 hours/19-23 April 2010

€ 1.500,-/1.875,-*

* PRICE

Member/non-member price incl. 3% VAT

LANGUAGES

Both courses are in English.

VENUE

Centre de Formation IFBL/Chambre de Commerce

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