



# PREPARING TO THE FINANCIAL RISK MANAGER FRM® CERTIFICATION PART I OF GARP

#### **ORGANISATION SHEET**

## **Objectives**

The seminar is fully consistent with the technical contents and objectives of the  $FRM^{\circledR}$  Part I examination administered in May and November, and provide a suitable preparation for this certification. Only the non-technical exam topics are not covered in the seminar.

## Methodology

The programme will involve a mix of presentations, spreadsheet examples and FRM<sup>®</sup> exam questions.

#### Language

English without translation

## Target group

Persons with a good knowledge of English and specialising in the field of Finance and/or Risk Management:

- risk managers;
- treasurers and traders;
- risk analysts;
- portfolio managers

and willing to take the FRM® exam.

## **Prerequisite**

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.

## **Participants**

15 participants selected among candidates from the following invited countries: Armenia, Azerbaijan, Bosnia & Herzegovina, Bulgaria, China, Croatia, Czech Republic, Egypt, El Salvador, Estonia, Georgia, Hungary, Kazakhstan, Kosovo, Latvia, Lebanon, Lithuania, Macedonia, Moldova, Mongolia, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Tunisia, Turkey, Ukraine and the West African Economic and Monetary Union

## Dates & Structure

## Preparation course in Luxembourg

- 29 March 2014: FRM Mathematics, Probabilities & Statistics
- 31 March 4 April 2014: FRM Risk Management Part I
- 5 April 2014: FRM Part I Mock exam

(arrival on 28 March, departure on 6 April)

## GARP Financial Risk Manager FRM® Part I exam

- 17 May 2014 or 15 November 2014
- in different countries/cities (candidates shall register in the most convenient city for them; they do not have to come back to Luxembourg for the exam).

Registration **directly with GARP**. For more information please visit: <a href="http://www.garp.org/frm/exam-overview.aspx">http://www.garp.org/frm/exam-overview.aspx</a>





#### Material

ATTF will provide the participants with "FRM Part I Books" (no need to buy it when registering for the exam), a 4-book series that contains all the readings from the FRM Part 1 Study Guide. Participants will also receive a complete syllabus during the course.

These materials will be paid by ATTF.

#### Lecturers

## FRM Mathematics, Probabilities and Statistics

Dr Luc Neuberg, Board Member of ALRiM (Luxembourg Association for Risk Management Professionals)

#### Main course

Mr Georges Hübner, Ph.D. in management from INSEAD. He is the Deloitte Professor of Financial management at HEC Management School - University of Liège. He is also Associate Professor of Finance at Maastricht University, Academic Expert at the Luxembourg School of Finance (University of Luxembourg), and Affiliate Professor of Finance at EDHEC (Lille & Nice).





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#### PROVISIONAL PROGRAMME

## Saturday 29 March 2014: FRM Mathematics, Probabilities and Statistics

- **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)

#### From Monday 31 March to Friday 4 April 2014:

## 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 Options
- 2.2 Fixed-income securities
- 2.3 Fixed-income derivatives
- 2.4 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





## Saturday 5 April 2014: Mock Exam

This 1-day drill session enables the participants to solve a realistic mock exam in-class, with the same real-time constraints as in the actual Part I FRM exam. A thorough correction session immediately follows to provide fresh and comprehensive feedback.

In order to make the session fully profitable, participants must have reviewed the material corresponding to the Part I exam and have tried to solve the in-class exercises during the FRM Risk Management seminar.

- 1. Preliminary comments and questions on the FRM exam format
- 2. In-class, real time mock exam
- 3. Question-by-question correction and feedback on each individual exam