European University Institute
ROBERT SCHUMAN CENTRE FOR ADVANCED STUDIES

FLORENCE SCHOOL OF BANKING & FINANCE

Professional Training Course

Risk Management

Valuation in Derivative Markets

<u>Instructors:</u>

Robert McDonald | Kellogg School of Management, Northwestern University

Fabrizio Planta | European Securities and Markets Authority

Emeroteca

Badia Fiesolana, Via dei Roccettini 9 - San Domenico di Fiesole (Fiesole, Florence)

@FBF_School

9 - 11 October 2019

Introduction

Derivatives are a fundamental tool for managing risk exposures, including both hedging and speculation. More broadly, the language and concepts related to derivatives touch almost every topic in finance. This course provides an analytical overview of futures, options, swaps and other derivatives. We will discuss how derivatives are constructed and deployed to solve particular problems, as well as the underlying pricing methodologies. We will pay special attention to the role of the risk premium in pricing. We will also discuss how derivatives fit into the current European regulatory environment (EMIR and MIFID) in a global context.

Programme

9 October

13.15	*Welcome coffee and registration*
13.30 - 14.00	**Introduction by the Florence School of Banking and Finance** and *tour de table*
14.00 - 15.30	**Session 1. Review of forward pricing**

- Forwards and swaps

Co-funded by the Erasmus+ Programme of the European Union

- What information is in prices?

15.30 - 16.00 *Coffee break*

16.00 - 17.30 **Session 2. Option pricing**

- Put-call parity
- Black-Scholes pricing
- Options greeks and the link to prices

17. 45 - 18.00 *Transfer by shuttle bus from Badia Fiesolana to La Divina Enoteca*

18.00 - 19.30 *Wine Tasting at La Divina Enoteca, via Panicale, 19/red, Florence*

10 October

09.30 - 11.00 **Session 3. Structures: Basic positions**

- Basic risk transformation with options
- Introduction to hedging and risk management

11.00 - 11.30 *Coffee break*

11.30 - 13.00 **Session 4. Structured instruments**

- Linked bonds
- Convertibles
- Corporate debt and equity as options

13.00 - 14.15 *Lunch break* (Sala Giuseppe Buonsanti)

14.15 - 15.45 **Session 5. Monte Carlo valuation**

- The lognormal model and basics of pricing by simulation
- Asian options
- Levered ETFs

15.45 - 16.15 *Coffee break*

16.15 - 17.30 **Session 6. Exotic options**

- Asian options
- Barrier options
- Quantos

17.45 - 18.00	*Transfer by shuttle bus from Badia Fiesolana to meeting point for Guided Tour in Via della Dogana, Florence*
18.00 - 19.30	*Guided tour in the city centre on the History of Banking and Finance in Florence*

11 October

09.30 - 11.00 **Session 7. Structured products in retail finance**

- Equity-linked notes
- Pricing exercises

11.00 - 11.15 *Coffee break*

11.15 - 12.45 **Session 8. The Regulation of Derivatives: The EU approach in a global perspective (Part I – EMIR)**

- The Clearing Obligation
- Risk Mitigation Techniques
- Reporting to Trade Repositories

12.45 - 13.30 *Lunch break* (Sala Giuseppe Buonsanti)

13.30 - 14.30 **Session 9. The Regulation of Derivatives: The EU approach in a global perspective (Part II – MIFID)**

- Trading Obligation
- Transparency Requirements and waivers
- Transaction Reporting

14.30 - 15.30 **Session 10. Pricing and the risk premium**

- Investing for the long run
- Are long-term put prices too high?

15.30 **Closing remarks**