

# MONECO FINANCIAL TRAINING

## INTEREST RATE PRODUCTS MECHANICS, PRICING AND APPLICATIONS

**December 3-4, 2019**

**Lecturer: Mark Taylor**

**Registration Deadline: November 19, 2019**



Upcoming Seminar

Attend this 2-day training course and learn about:

- The nature of interest, interest rate calculations and discounting methods
- The scope and structure of the bond market
- Bond pricing and risk management
- Interest rate derivative products – concepts and technical details
- Creating synthetic assets using interest rate swaps
- The risk of interest rate derivatives – measuring and managing
- The interest rate volatility surface and pricing approaches for interest rate options
- Interest rate exotics and structured products, and how they are used by traders and investors

*This 2-day course offers a detailed analysis of the interest rate market, the products that trade within it, and how they are used by traders, investors and companies.*

On day one, we start with the basics of interest rates – how are they quoted, how are the levels set and what drives movements in rates? We then look at the marketplace for debt products focussing on the details of the money and bond markets. The course will help participants understand how companies, banks and investors use these markets as well as covering the technical details around pricing and risk management.

On day two we move our focus to interest rate derivative products. This section begins with a look at the linear derivative products: FRAs, futures and swaps. We cover the intuitive understanding of these products and the client applications, through to detail on the pricing and risk management. Once we have laid the derivative foundations, we move onto option products, including a look at exotic derivatives. Main option applications will be covered, and participations will be introduced to option pricing and option risk. The course finishes with a look at interest rate structured products, examining some of the investor favourites and asking what makes them so appealing.

#### Who should attend?

Bank traders, salespeople, structurers  
Bank market risk managers, middle office and operations professionals  
Investors – institutional investors, fund managers, private traders  
Company treasury managers and staff, accountants, risk managers

#### Course methodology

The course consists of classroom-based training which combines formal teaching of concepts and technical content, with individual and group exercises to reinforce learning points.

## TUESDAY, DECEMBER 3

09<sup>00</sup>–09<sup>10</sup>

### Welcome and Introduction

09<sup>10</sup>–12<sup>30</sup>

#### Interest Rates

- What is interest?
  - What is interest compensation for?
  - How to determine interest rates from risk-free to high-risk
- Benchmark rates
  - The use of central bank 'risk-free' rates
  - IBOR benchmarks and future reference rates
  - How do central banks control the interest rate environment?
- Interest rate maths
  - Calculating interest cash flows
  - What conventions does each currency use?
  - Dealing with simple and compound interest
- Using interest rates to present value future cash flows
  - Which rate do we choose and why does it matter?

#### Exercises:

- ♦ Interest rate calculations
- ♦ Discounting and the choice of discount rate

#### Debt Markets

- The role of debt
  - Why and how do companies and governments borrow money?
  - Debt versus equity – the corporate financing choice

- Issuing debt instruments – the role of the Debt Capital Markets division in a bank
- Who participates in the debt markets and what is their motivation?
- Borrowing short-term debt – the Money Markets
  - Understanding the conventions and pricing of money market instruments

12<sup>30</sup>–13<sup>30</sup>

#### Lunch

13<sup>30</sup>–17<sup>00</sup>

#### Debt Markets (cont.)

- Borrowing long-term debt – Bonds
  - How do bonds differ from money market products?
  - Introduction to coupon, price and yield
    - the way we measure bonds
    - The relationship between price and yield
  - How do we measure the risk of a bond investment?
- Financing using bonds – the Repo market
  - Using Repos to fund a bond investment
  - Borrowing bonds using Repos
- Creating a yield curve
  - How do we define a yield curve?
  - What governs its shape and what are the consequences of different shapes?

#### Exercises:

- ♦ Bond pricing
- ♦ Repo calculations and forward bond pricing

## Interest Rate Derivatives

- From cash markets to derivatives – what changes?
- The concept of a forward interest rate
  - Why do we need forward rates? Who uses them?
  - How might we develop a pricing approach for forward rates?
- Derivative products relating to forward rates
  - Description of FRAs and Futures
  - Look at the details of both and contrast differences
  - Understanding the convexity difference between FRAs and Futures

## WEDNESDAY, DECEMBER 4

09<sup>00</sup>–12<sup>30</sup>

### Interest Rate Derivatives (cont.)

- Interest Rate Swaps – switching fixed interest for floating
  - Who uses interest rate swaps and why?
  - Creating synthetic assets using interest rate swaps
  - Bank asset and liability hedging using tenor basis swaps
- Measuring the risk of interest rate derivatives
  - Managing a derivatives portfolio
  - Defining and quantifying your risk
  - The delta ladder – the risk position for a derivatives trader

#### Exercises:

- ♦ FRA settlement calculations
- ♦ Interest rate swap applications

## **Interest Rate Options**

- What are the types of options that exist in the interest rate world?
  - Caps, floors and swaptions – how do they each work?
  - Understanding the exercise decision
  - Who uses interest rate options and why?
- Developing a pricing approach for interest rate options
  - Using the standard Black-Scholes approach – what adjustments do we need to make?
  - Understanding the interest rate volatility surface and why it matters
- Hedging interest rate options
  - What risk measures do interest rate option traders use?
  - How do you risk manage an option portfolio?

12<sup>30</sup>–13<sup>30</sup>

## **Lunch**

13<sup>30</sup>–17<sup>00</sup>

## **Interest Rate Options (cont.)**

- Introduction to more complex option types
  - Bermudan options – the right to switch the decision date
  - Spread options – taking a position on yield curve shape
  - Digital options – binary outcomes
  - CMS swaps – not really options, but option-like

## **Exercises:**

- ♦ Option pricing
- ♦ Simple option risk management

## **Interest Rate Exotics and Structured Products**

- The world of interest rate structured products?

- Who invests in structured products and why?
- What are the driving forces behind the popularity of certain interest rate investment ideas?

- Simple interest rate structured products
  - Capped FRNs, Callable Bonds, Reverse FRNs
  - How do the above work and what is the investment idea?
- More complex products
  - Range accruals, CMS-linked notes, Autocallables, TARNs
  - How do these products work and why are they so popular?

## **Exercises:**

- ♦ Analysis of common structured products
- ♦ Callable range accruals

## **Termination and Evaluation of the Seminar**

## **Lecturer: Mark Taylor**

Mark spent 10 years as an FX and interest rate derivatives trader in London, HK and New York before moving into financial training, where he has spent the last 9 years. His trading experience spans vanilla and exotic products having run profitable businesses across the derivatives product spectrum.

Mark graduated from the University of Bristol with a first-class degree in Aeronautical Engineering. He had a brief stint as an aerodynamicist working on military aircraft design for BAe Systems, before moving into finance, first with Deutsche Bank and then RBS.

After leaving finance Mark bought, ran and subsequently sold a retail business; in the process developing a first-hand understanding of company valuation, accounting, as well as company financing and risk management.

Mark uses his experience in financial markets and the corporate world to run engaging training courses across both the markets and corporate finance disciplines.



*Knowledge Leads the Way...*

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# Terms and Conditions of the MONECO Financial Training

## MONECO Financial Training

MONECO Financial Training offers a comprehensive programme of English-language seminars, trainings and practical workshops lectured by qualified tutors. Our objective is to provide the industry professionals with advanced financial know-how and up-to-date analytical methods and skills.

## Seminar Venue and Accommodation

The bulk of the MONECO seminars are traditionally held at the international four-star NH Prague Hotel in Prague, Czech Republic. Since we are expanding our training activities, we run some selected seminars also in other European destinations. Accommodation is not included in the seminar price, but upon request we are happy to offer you hotel reservations in every of our training destinations at special discounted prices for our valued clients.

## Tuition Language

Seminar tuition is in English language, as are all manuals, training software etc. Therefore, in order to benefit from participation, at least a passive knowledge of English, including common financial phrases and related terminology, is required.

## Registration

Clients who decided to participate, should submit us in advance a registration for a particular seminar (letter, fax, internet etc.). Subject to availability, the participant will then receive a confirmation of participation. The number of participants is always strictly limited in order to secure an effective and focused learning environment.

## Seminar Prices

The quoted seminar prices are per person and include all the training manuals, lunches and refreshments, certification diploma in English and selected software solutions used at the seminar. The price does not include hotel accommodation. Quoted prices are exclusive of local VAT (21 %) "Bundle" prices represent the total fee for participation in mutually related seminars (i.e. "Bundles 3+2, 2+3, 2+2, 3+1, 1+3, 1+2+2 and 2+2+1"). "Bundle" prices are provided in the Calendar of the MONECO Financial Training seminars.

## Discounts

Bulk discounts are offered when submitting an application for the participation of more than one person. A 10 % discount is offered when at least two participants from one company register for a seminar or one participant registers at once for two or more seminars. The discounts do not apply for "bundle" prices, as these already represent discounted prices.

## Invoicing and Payment

An invoice for the seminar price will be sent to the participants no later than 10 working days prior to the beginning of the seminar. **Full payment of the invoice must be made before the start of the seminar as a precondition of participation.**

## Terms of Cancellation

If for whatever reasons a registered participant is unable to attend, a substitute delegate may be appointed to participate instead. For cancellations received 20 days or more before the beginning of the seminar, a 10 % cancellation fee of the full price will be invoiced i.e. 90 % of the price is refunded. **For cancellations received less than 20 days prior to the beginning of the seminar, the full price is payable i.e. no refund will be provided. All cancellations must be in writing.** The organizers of the MONECO Financial Training courses reserve the right to cancel the individual participation or cancel the entire seminar or part of it for whatever unspecified reasons, including possible force majeure. In this case, the price paid will be refunded in full or in part, accordingly.

## REGISTRATION FORM

**Registration Deadline:  
November 19, 2019**

• Interest Rate Products – Mechanics, Pricing and Applications

December 3 – 4, 2019

€ 1,400

## COMPANY

Name:

Approving Manager:

Person responsible for training:

Address:

Tax Registration No.:  VAT Identification No.:

## PARTICIPANTS

1. Title: Name:  Phone:   
Mr/Mrs/Ms  
E-mail:  Position:

2. Title: Name:  Phone:   
Mr/Mrs/Ms  
E-mail:  Position:

3. Title: Name:  Phone:   
Mr/Mrs/Ms  
E-mail:  Position:

Date:  Signature: