

MONECO FINANCIAL TRAINING

CORPORATE CREDIT RATING SYSTEMS: DESIGN, DEVELOPMENT, CALIBRATION AND VALIDATION

June 20-21, 2018

Lecturer: Dr. Krassimir Kostadinov

CORPORATE CREDIT RATING SYSTEMS

DATES: June 20 – 21, 2018 • PRICE: € 1,120 • LOCATION: Prague, NH Hotel Prague

UPDATED

The purpose of this seminar is to introduce you to the key methodologies to design, develop, calibrate and validate credit rating systems for corporate customers.

Key points / questions answered:

- Which rating models are appropriate for regulations such as Basel III or IFRS 9?
- How to gather, structure and maintain the data needed for credit ratings of corporate entities?
- How to handle data availability and data quality challenges in practice?
- Which statistical tools and rating model development practices are robust and proven?
- Which innovative methods might help the bank to obtain forward-looking risk assessments?
- How to create a rating system that is useful for risk-adjusted pricing in long-term corporate customer-bank relationships?

We start with an overview and discussion of the three main types of credit rating systems: the Early Warning systems, the Long-term Corporate (issuer) Ratings and 'Master Scale'-based Rating systems. Particular focus is put on the uses and misuses of each of the three system types, including their applicability to meet regulatory requirements, such as Basel III or IFRS 9, and their appropriateness to address business-related objectives, such as risk-adjusted pricing or operational risk management.

We then take a closer look at the 'Master Scale'-based Rating systems. 'Master scales' allocate a non-overlapping range of probabilities of default (PD) that are stable over time to each rating class. The rating methods for such systems need to produce accurate projections of the 1-year PD based on actually observed defaults. Starting from 'simpler' questions, such as what constitutes a default of a corporate customer, how to handle groups of legally or economically related entities from a data management perspective or how to build and maintain an appropriate historic record of defaults, we gradually dig into the core quantitative modelling methodology. Covered topics include statistical analysis of Corporate Balance Sheet KPIs, design and development of Integrated Rating Models based on quantitative factors and qualitative assessments, and model validation techniques. Throughout this part of the course we give practical advice and examples related to common challenges such as low default portfolios, missing / incomplete data and input data outliers.

After this, we turn to the Early Warning systems, which help the bank to identify reliably upcoming defaults or substantial credit risk increases of specific corporate customers on an ongoing basis. Customer account behaviour variables and expert opinion play a critically important role in the risk differentiation mechanics within such system, making the risk assessment a fully dynamic process. Building upon that, we present a more comprehensive framework to assess the impact of observable factors, such as market prices or macroeconomic indices, on the corporate customer's credit risk in a forward-looking manner.

Finally, we look at the Long-term Corporate (issuer) Ratings which express risk in relative rank order (i.e. they are ordinal measures of credit risk) and are not predictive of a specific frequency of default. The rating model development in this case needs to start from a specific industrial sector and only thereafter to combine the multiple specific models into a unified rating scale. We briefly present an example of a Long-term Corporate Rating model within the healthcare sector and illustrate the process of mapping the model's results to a generic rating scale, such as S&P or Moody's.

Throughout the entire course, we revisit the topic of IFRS 9 multiple times, highlighting the best practices in applying the different types rating systems to comply with this new regulation. Covered topics include the development of IFRS 9 staging criteria, the estimation of lifetime PD and the calculation of impairment provisions.

WEDNESDAY, JUNE 20

09⁰⁰ – 09¹⁵

Welcome and Introduction

09¹⁵ – 12⁰⁰

Overview of the Credit Rating Systems

- Corporate Customers: definition and main characteristics
- The three main types of Credit Rating Systems
- Relationship with regulatory requirements
 - Basel III: Internal Rating-Based Approach
 - ICAAP: calculation of Economic Capital
 - IFRS 9: Expected Loss model
- Business process objectives
 - Using ratings for risk-adjusted pricing
 - Using ratings for operational decision-taking
- Exercises and Q&A: how to approach the IFRS 9 regulation

12⁰⁰ – 13⁰⁰

Lunch

13⁰⁰ – 16³⁰

The Master Scale Ratings (continued)

- What is a Master Scale?
- Defining the corporate entities to be rated

- Groups of related customers
- Corporate structures and customer account management over time
- Default definitions

- The Balance Sheet KPIs
 - From Long List to Short List KPIs
 - Handling of incomplete data
 - Handling of outliers
 - Quantitative Model development
 - Model validation
- Integrated Rating Models
 - Quantification of qualitative assessments
 - Bringing in account behaviour variables: pros & cons
 - Low default portfolios
 - Small sample sizes
- Exercises and Q&A: Master-Scale ratings and their applications in IFRS 9

THURSDAY, JUNE 21

09⁰⁰ – 09¹⁵

Recap

09¹⁵ – 12⁰⁰

Early Warning Systems

- How to assess imminent credit risk?
 - Corporate customer behaviour variables

- Early risk identification as an organisational challenge
- Integrating expert opinions and quantitative rating models
- Expected Loss vs Probability of Default metrics

- How to obtain forward-looking credit risk scores?
 - Generic framework for incorporation of additional observable variables
 - Case Study: improving an Early Warning system using market prices
 - Case Study: implementing the IFRS 9 Expected Loss model

12⁰⁰ – 13⁰⁰

Lunch

13⁰⁰ – 16³⁰

Long-term Corporate Ratings

- Understanding ordinal risk measurement
 - Case study: Mapping internal ratings to a Rating Agency scale
- Exercises and Q&A: Long-term corporate ratings and their applications in IFRS 9

Evaluation and Termination of the Seminar

Target audience:

The design, development and implementation of appropriate rating systems for corporate customers require a broad mix of data-technical, quantitative modelling and finance/business skills. The course is designed for the risk management team members who want to learn more about the current best practices in the area. It is appropriate for professionals on junior, mid-senior and senior level working (or planning to work) on projects such as corporate rating model development and (re-)calibration, model back-testing and validation, IFRS 9 Expected Loss implementation, Basel III IRB Approach implementation or Business Process Optimisation with focus on credit risk management for corporate customers. This includes both the professionals from the banking group's headquarter, responsible for the set up and validation of the global modelling framework, as well as the ones from the local/regional banks, responsible for comprehensive local model calibration and related add-on projects.

For the participants with business background, all quantitative modelling techniques are presented mainly through examples and without digging into theoretical details, therefore no advanced technical / mathematical prerequisites are needed. The participants with mathematical / statistical background are expected to have at least basic understanding of the classical types of financial instruments used in a bank as well as of the corporate financial reports such as Balance Sheet and P&L.

Lektor: Dr. Krassimir Kostadinov

Dr. Krassimir Kostadinov is founder of UniversalOwner, a boutique advisory services firms focussing on quantitative risk management and banking software design, development and implementation. Previously, he has held a position at an international banking software house head-quartered in Luxembourg, where he was Head of the Data Access and Valuation department.

Krassimir has multi-year experience in training, consulting and project management, including implementations of risk management / reporting systems and internal business processes for compliance to banking regulations such as Basel III and IFRS 9. His approach to training involves explaining in detail and providing economic intuition on the mathematical concepts that appear in the regulatory requirements, as well as discussing data flows, system design and/or software tools appropriate for practical implementation. He has done projects and held courses at multiple financial institutions in 20+ countries on 3 continents. His most recent project was on the establishment of an innovative, data-driven and independent credit rating agency.

Krassimir earned a Ph.D. in Mathematics from the Munich University of Technology, Germany. In his research, he developed new statistical and computational methods for multidimensional financial data aggregation and applied them to measure risk from extremal events on the credit and fixed income markets.



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

• Corporate Credit Rating Systems:
Design, Development, Calibration and Validation

June 20 – 21, 2018

€ 1120

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: