

# CZECH FINANCIAL ACADEMY

*Featured Seminars:*

## CORPORATE CREDIT RISK ANALYSIS, MODELLING, MITIGATION AND CONTROL

**November 2 – 3, 2010**

## ADVANCED CREDIT RISK MODELLING AND MANAGEMENT

**November 4 – 5, 2010**

**Registration Deadline: October 19, 2010**

2+2

- **Business Cycles, “Credit Crunches” and Corporate Credit Risk**
- **Fundamentals of Corporate Credit Risk**
- **Corporate Credit Risk Analysis**
- **External Rating of Corporate Debt**
- **Internal Rating Models**
- **Mitigating and Controlling Corporate Credit Risk**

2+2

The purpose of this course is to give you a good understanding of methods and tools for analyzing, modelling mitigating and controlling corporate credit risk.

We start with general introduction to corporate credit risk and discuss the challenges of managing this type of risk – in “normal” times and under stressful market conditions as those that we have experienced in recent years.

We then take a closer look at some of the “fundamentals” of corporate credit risk. We explain the business and financial risks that may affect a corporation’s ability to meet its financial obligations, and we discuss how various credit events and credit spread changes may affect loans and investment products. We will also discuss the how “structural” features such as seniority, parental support, and structural subordination affect the credit quality of various corporate debt instruments.

Further, we look at various methods for assessing corporate credit risk. We explain how a corporation’s business models, business environment and financial statements can be analyzed to determine how various economic, business and financial factors affect corporate credit quality and debt servicing ability and likelihood of default.

We also look at credit scoring, at the rating system and methodologies used by the major rating agencies such as Moody’s, Standard and Poor’s and Fitch, and at the “internal rating models” used by banks under the Basel II IRB approach. First, we give an in-depth explanation of how to build, calibrate and implement of the internal rating system. Then, we look at how the risk components such as “Probability of Default” (PD) and “Loss Given Default” (LGD) are calculated.

Finally, we give a thorough explanation of method and instruments for mitigating corporate credit risk. Topics will include the use of loan covenants, margining and collateral. We also explain and demonstrate how credit risk can be transferred wholly or partly using credit derivatives, asset securitization and other structured finance transactions.

## TUESDAY, NOVEMBER 2

09.00–09.15

### Welcome and Introduction

09.15–12.00

### Corporate Credit Risk – General Introduction

- Business Cycles, “Credit Crunches” and Corporate Credit Risk
- Historical and Current Default Rates
- Case Studies: Enron, WorldCom, GM, ...

### Fundamentals of Corporate Credit Risk

- The Nature of Credit Risk
  - Types of credit events (bankruptcy, default, failure to pay, etc.)
  - The bankruptcy process
  - Credit quality deterioration and migration risk
- Intrinsic Credit Risks in Corporate Business
  - Risks arising from corporate business strategy
  - Risks arising from corporate financing policy
- The Anatomy of Corporate Credit Risk
  - Loans, bonds and other “on-balance” liabilities
  - Senior, junior and subordinated debt
  - Contingent/off-balance exposures
- Basic Principles of Corporate Credit Risk Assessment
- Examples and Small Exercises

12.00–13.00

### Lunch

13.00–16.30

### Corporate Credit Risk Analysis

- Financial Strategy, Performance and Earnings Dynamics
  - Understanding corporate finance strategy (treasury objectives)
  - Ratios for earnings/profitability

– Financial performance (linking to share price of the company)

- Analysis of Stability and Financial “Health”
  - Overview of financial statement analysis
  - Financial shenanigans and other tricks
- Financial Flexibility and Liquidity
  - Operational and nonoperational flexibility
  - Liquidity risks and ratios, sources of liquidity
  - Cash flow GAP analysis (financing gap)
  - Refinancing risk (prepayment, maturing debt)
- Cash Flow, Solvency and Debt Capability
  - Analyzing the cash flow statement and cash flow ratios
  - Measuring free cash flow and debt capacity
  - Defining and evaluating solvency
- Analysis of Non-Financial Factors
  - Macro factors, business strategy, sector drivers (Porter Model)
  - Evaluating management and ownership structure

## WEDNESDAY, NOVEMBER 3

09.00–09.15

### Brief recap

09.15–12.00

### External Rating of Corporate Debt

- Rating Institutions and their Importance
- Rating Methodologies
- Primary and Secondary Credit Factors
- The Rating Process
- Types of Ratings and their Interpretations
- Issuer vs. Issue Ratings
- Measuring Rating Performance

### Internal Rating Models

- Requirements under Basel II
- Building, Calibrating and Implementing and Internal Rating System
- Calculating Probabilities of Default

– Statistical default prediction methods

- Benchmarking and migration of PDs
- Calculating Losses Given Default
  - Requirements
  - The problem with Basel’s “backward-looking” LGD
  - Small exercise
- Examples and Small Exercises

12.00–13.00

### Lunch

13.00–16.30

### Internal Rating Models – continued

- Validating Internal Rating Systems
- Using Outputs from Internal Ratings System to Calculate Regulatory and Economic Capital
- Case Study and Exercises

### Mitigating and Controlling Corporate Credit Risk

- Overview of Methods for Managing Credit Risk
- Mitigating Credit Risk through Financial Covenants
  - Affirmative covenants
  - Negative covenants
  - Financial covenants
- Using Collateral and Margining
- Credit Risk Transfer and Asset-Backed Financing
  - Credit guarantees
  - Credit derivatives
  - Securitization and Project Finance
- Reporting and Management Control

### Evaluation and termination of the Seminar

# ADVANCED CREDIT RISK MODELLING AND MANAGEMENT

DATES: November 4 – 5, 2010 • PRICE: € 1,500 • LOCATION: Prague, Mövenpick Hotel

- **The Global Credit Crisis and Financial Markets**
- **Structural and Reduced Form Models**
- **Modelling Credit Correlations**
- **Measuring Portfolio Credit VaR and Economic Capital**
- **Modelling and Measuring Counterparty Risk**
- **Using Collateral and Margin Calls**
- **Using Credit Derivatives in Credit Risk Management**
- **The Future Use of Securitization to Manage Credit Risk**

The purpose of this advanced-level seminar is to give you a thorough understanding of state-of-the-art tools and techniques for measuring and managing credit risks.

First, we discuss important market developments that have led to and increased focus on the management of credit risk: The integration of market and credit risk; the increasing use of off-balance financing techniques and complex structures such as CDO-Squared; the introduction of the new Basel framework for capital coverage; and, of course, the market turbulence that followed in the wake of the “subprime” crisis.

We then take you beyond the Basel guidelines to develop a powerful program for controlling your firm’s credit risk. We explain how different credit risk modelling techniques, including structural models (such as Merton, Black and Cox, Longstaff and Schwartz, Zhou and Hull and White), as well as “reduced form” models (such as Duffie and Singleton and Lando), can be used for the estimation of credit default risk and default correlations. We also take a critical look at Gaussian copula model and explain how these models have been used – and misused - in justifying AAA-ratings of CDOs.

We explain how “Credit VaR” is calculated and used as basis for risk-adjusted pricing of loans, bonds and more complex structures, and for allocation of risk capital. We explain how “economic capital” is calculated, and how economic capital is used as basis for risk-adjusted performance measurement and internal capital allocation. We also explain how counterparty risk arising from OTC derivative and securities lending transactions can be modelled and measured.

Further, we present and explain methods for transfer, repackaging and mitigation of credit risk, including the use of collateral, margining, credit guarantees, and credit derivatives. We give an in-depth explanation of the mechanics and pricing of the instruments, and we give examples of how credit default swaps, total return swaps and credit options are used to gain or reduce exposure to credit risk and credit spread risk.

Finally, we explain how credit risk can be bundled, repackaged and sold as Asset Backed Securities. We give a history of the rise, decline, and fall of securitization, and we give an overview of industry and policy initiatives aimed at restarting sustainable securitization.

THURSDAY, NOVEMBER 4

09.00–09.15

## Welcome and Introduction

09.15–12.00

### New Challenges in Credit Risk Management

- Why Credit Risk Has Become More important
- Credit Risk Management in a Post-Crisis Landscape
- The Integration of Market, Credit and Liquidity Risk
- Types of Credit Risks in Banking and Securities Trading
- Overview of Approaches to Modelling Credit Risk

### Modelling Default Risk and Default Correlations

- Structural Models for Default Risk
  - Modelling Credit Risk as an Option
  - Merton’s Option-Theoretical Model
  - Models with an exogenous default boundary
  - Models with an endogenous default boundary
- Case Studies
  - MoodysKMV
  - CreditGrades
- An Empirical Valuation of Structural Credit Risk Models
- The Link between the Merton Model and the Basel IRB Risk Weight Function
- Practical Case Studies and Exercises

12.00–13.00

## Lunch

13.00–16.30

### Modelling Default Risk and Default Correlations (continued)

- Reduced form Models for Default Risk
  - Duffie and Singleton

– Lando

– Extracting default probabilities and dependencies from market prices

### • Copula Models

- Using copula functions in the valuation of credit derivatives
- How copula models were misused by rating agencies and investment banks in constructing AAA-rated CDO tranches

### • The Term Structure of Credit Risk

### • Measuring Credit Portfolio VaR

### • Measuring Economic Capital

### • Risk-Based Loan Pricing

### • Modelling and Measuring Counterparty Risk

### • Practical Case Studies and Exercises

FRIDAY, NOVEMBER 5

09.00–09.15

## Brief recap

09.15–12.00

### Managing Credit Risk

- Overview of Methods for Managing Credit Risk
- Using Collateral to Manage Credit Risk
  - Calculating the “haircut”
  - Collateral management
- Using Margining to Manage Credit Risk
- Managing Counterparty Risk
  - ISDA CSA
- Using Credit Derivatives to Transfer Credit Risk
  - Overview of credit derivatives and their mechanics
  - Credit default swaps
  - Total return swaps
  - Credit options and credit spread options
  - Using “nth-to-default” swaps
  - Hedging counterparty risk with dynamic credit default swaps
  - Using iTraxx and CDX to gain or remove “macro” credit exposure
  - Delta-hedging CDO-tranches
- Practical Case Studies and Exercises

12.00–13.00

## Lunch

13.00–16.00

### Managing Credit Risk (Continued)

- Using Securitization to Transfer Credit Risk
  - The rise, decline, and fall of securitization
  - “Traditional” asset-backed securitization
  - Securitization of receivables
  - Securitization of bank loans and bond portfolios
  - Securitization and the “shadow banking system”
  - Improving RAROC through securitization
  - Synthetic securitization
  - Hybrid securitization transactions
  - Legal and accounting issues in securitization
  - Treatment of securitization under Basel II – now and in the future
- Industry and policy initiatives aimed at restarting sustainable securitization
- Practical Case Studies and Exercises

### Evaluation and Termination of the Seminar

2+2

# Terms and Policies of the Czech Financial Academy

## CZECH FINANCIAL ACADEMY

The Czech Financial Academy is a joint venture between the consultancy companies MONECO and BASISPOINT that 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

All Czech Financial Academy seminars are held at the international four-star Mövenpick Hotel in Prague at Mozartova 1 (Mozart Street). Accommodation is not included in the seminar price, but we are happy to offer hotel reservations at discounted prices for our 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 V.A.T. "Bundle" prices represent the total fee for participation in mutually related seminars (i.e. "Models 3+2, 2+3, 2+2, 1+3, 3+1, 1+2+2 and 2+2+1"). "Bundle" prices are provided in the Calendar of the Czech Financial Academy 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 3 weeks 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 refunding will be provided. All cancellations must be in writing.** The organizers of the Czech Financial Academy 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.

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## REGISTRATION FORM

**Registration Deadline:  
October 19, 2010**

<input type="checkbox"/> Corporate Credit Risk – Analysis, Modelling, Mitigation and Control	<input type="checkbox"/>	November 2 – 3, 2010	€ 1,500	€ 2,500 <b>2+2</b> <input type="checkbox"/>
<input type="checkbox"/> Advanced Credit Risk Modelling and Management	<input type="checkbox"/>	November 4 – 5, 2010	€ 1,500	

## 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: