#### AKTUARVEREINIGUNG ÖSTERREICHS

#### UNIVERSITÄT SALZBURG

### ÖSTERREICHISCHE GESELLSCHAFT FÜR VERSICHERUNGSFACHWISSEN

Salzburg Institute of Actuarial Studies 5020 Salzburg, Hellbrunner Straße 34

# **Invitation to a Course on Risk Management in Insurance**

Value and risk based management with special consideration of Solvency II

26<sup>th</sup> March 2008 to 29<sup>th</sup> March 2008 Salzburg University

Lecturers: Prof. Dr. Heinrich Schradin

Chair of General Business Administration, Risk Management and Insurance

at Cologne University

Visiting professor at Salzburg University

Daria Ringwelska

Komisja Nadzoru Finansowego (Financial Supervision Authority), Warsaw Internal Models Expert Group of CEIOPS (Committee of the European Insurance and Occupational Pensions Supervisors), Frankfurt

Martin Gehringer

German Certified Public Accountant, Ernst & Young, Frankfurt

Dr. Philipp Keller

Partner of Ernst & Young, Zurich

(until April 2007 head of the division "Swiss Solvency II" and member of the Board of the Federal Office of Private Insuance, Berne)

Anton Wittl

Managing partner of ROKOCO, Grünwald (Munich)

Dieter Reichelt

Director and partner of ROKOCO, Grünwald (Munich)

Dates: Wednesday, 26<sup>th</sup> March, 9.00 – 17.30

Thursday, 27<sup>th</sup> March, 9.00 – 17.30 Friday, 28<sup>th</sup> March, 9.00 – 17.30 Saturday, 29<sup>th</sup> March, 9.00 – 12.30 Contents:

The course covers all theoretical and practical aspects of modern risk management in insurance required to become a fully qualified actuary according to the core syllabus of the International Actuarial Association and the core syllabus of Groupe Consultatif, according to the regulations of the Actuarial Association of Austria (AVÖ), as well as according to the regulations of the German Actuarial Association (DAV).

On the basis of the fundamental principles of the risk management process methods, strategies and instruments will be systematically developed and discussed. Recent developments in the field of insurance regulation, especially in the context of Solvency II, will be dealt with in detail. Internal models used to determine solvency capital requirements will be studied. The transition from risk based management to value based management will then be effected. Specific problems will be addressed comprehensively, e.g. the allocation of the risk based capital, the substantiation of an appropriate cost rate of capital and the calculation of a segment-related value contribution.

The course is suited to all those who want to acquire knowledge of risk management in insurance. It is also of interest to experienced practitioners. Please find the detailed program of the course on the following two pages.

Course fees:

€796. The course fees cover the 4 overnight accommodations from Tuesday to Saturday in the Castellani Parkhotel including breakfast. The fees for participants who do not need accommodation are €480. Lunches and coffee breaks are included.

Information:

For further information, please contact Sarah Lederer by fax (+43 662 8044 155) or e-mail (<u>sarah.lederer@sbg.ac.at</u>) with your telephone number. Your questions will be answered as soon as possible.

Registration:

Please send the attached registration form by post or fax it to +43 662 8044 155, and arrange for the amount to be transferred (at no cost to the recipient) to the following account before 8<sup>th</sup> February 2008. After this date registration with hotel accommodation is only possible upon request. The registration and payment deadline for participants who do not need accommodation is 29<sup>th</sup> February 2008.

Salzburg Institute of Actuarial Studies (SIAS)

IBAN: AT 792 040 400 000 012 021 BIC: SBGSAT2S

Location: Lecture Hall 402 in the Faculty of Science

A-5020 Salzburg, Hellbrunner Straße 34

# **Programme**

Session 1 daily 9.00 – 10.30 Session 2 daily 11.00 – 12.30 Session 3 daily 14.00 – 15.30 Session 4 daily 16.00 – 17.30

## Wednesday, 26th March 2008

- 1 Risk and its management, objective of risk management (H. Schradin)
  - a. Different meanings of risk
  - b. Sources of risk
  - c. The need for a risk management objective
  - d. Value maximization and the cost of risk
- **2 Risk identification** (*H. Schradin*)
  - a. Causes and effects
  - b. Risk map
  - c. Main categories of risk
- 3 Risk measurement (H. Schradin)
  - a. Qualitative methods
  - b. Quantitative methods
    - i. Symmetric risk measures
    - ii. Asymmetric risk measures
- 4 Risk management strategies (H. Schradin)
  - a. Risk management methods
    - i. Loss control
    - ii. Loss financing techniques
    - iii. Internal risk reduction
  - b. Pooling independent losses
  - c. Pooling with correlated losses

# Thursday, 27<sup>th</sup> March 2008

- 1 Reinsurance (H. Schradin)
  - a. Function of reinsurance
  - b. Types of reinsurance
  - c. Finite reinsurance
  - d. Alternative risk transfer
- **2 Insurance regulation** (D. Ringwelska)
  - a. Scope of insurance regulation
  - b. Overview
  - c. Solvency regulation according to Solvency I
    - i. Non-life insurance
    - ii. Life insurance
- 3 Solvency II, 1<sup>st</sup> pillar, standard approach (M. Gehringer)
  - a. Types of risk
    - i. Premium risk

- ii. Reserve risk
- iii. Asset risk
- iv. Operational risk
- b. Solvency capital requirement
- c. Available solvency margin

# 4 Solvency II, 1<sup>st</sup> pillar, internal model (*P. Keller*)

- a. Illustration of risk based capital
- b. One period deterministic stress testing
- c. Dynamic Financial Analysis (DFA)
  - i. Deterministic DFA
  - ii. Stochastic DFA

# Friday, 28th March 2008

#### **Solvency II, further issues** (A. Wittl and H. Schradin)

- a. 2<sup>nd</sup> pillar: Internal control and risk management
- b. 3<sup>rd</sup> pillar:
  - i. Public disclosure
  - ii. Supervisory reporting
- c. Group supervision under Solvency II

# 2 Risk management and shareholder wealth (H. Schradin)

- a. Principles of business valuation
  - i. Embedded Value
  - ii. Appraisal value
  - iii. Economic Value Added
- b. Cash flow modelling
- c. Capital requirement and opportunity cost of capital

#### 3 Risk based capital allocation (H. Schradin)

- a. Problem definition: Counting back diversification
- b. Allocation approaches:
  - i. Statistic models
  - ii. Game theory
  - iii. Simplified practices

#### 4 Decision making in a value based management framework (H. Schradin)

- a. Reasons for a cost rate of capital
  - i. Financial theory
  - ii. Simplified practices
- b. Evaluating the Economic Value Added

# Saturday, 29th March 2008

# Case study: Assessment of the asset/liability mismatch risk in life insurance using an internal model (D. Reichelt)

- a. Models for the capital market, assets and liabilities
- b. Impact of different risk and return measures
- c. Analysis and discussion of results and effects

### 2 Discussion / exam preparation (H. Schradin)