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Expert seminar of Slovenian Association of Actuaries

20<sup>th</sup> and 21<sup>st</sup> January 2015





Dear all!

We are kindly inviting you to the seminar organized by Slovenian Association of Actuaries. The theme of the seminar is **Risk management in Insurance** and is going to take place on

#### 20<sup>th</sup> and 21<sup>st</sup> January 2015

in M - hotel, Derčeva ulica 4, Ljubljana.

We will host eminent international speakers: **Frank Cuypers**, **Peter England**, **Lars Moormann**, **Sergej Simoniti**, **Rudi Lipovec**, **Boris Cergol** in **Aleksander Zadel**. The lectures will be mostly in English.

We are just before the finish line of preparatory stage of the new insurance directive. Risk management will become the important process in insurance everyday business. We are inviting you to exiting lectures dealing with different kinds of topics about risk management. Lectures will lead you through different points of view of risk management – from the regulator point of view to the enterprise risk management part and the selling part where the main key to success is a good communication. Furthermore, we will also hear something about insurance frauds. The seminar is recommended to the all key functions from insurance and bank business.

The seminar fee/tuition is  $450 \in$  for the members of Slovenian Association of Actuaries and  $550 \in$  for non-members and it includes lunch and snacks during the brakes. If 10 or more people from the same organization will attend the seminar, each of them will receive  $100 \in$  discount.

You are all kindly invited to join us!

#### The participants of the seminar will receive 50 credits for CPD.

Please send the participation letter to **info@actuaries.si** with subscript: »for orga-team Seminar« **until 10th January 2015**. Please send us also the information about the payer. If the payer is the company, please send us company's tax code. We will send you the bill after the seminar.



# Time table:

Tuesday 20th January 2015

| Time          | Activity   | Lecturer        |
|---------------|--|-----------------|
| 8.30 – 9.00   | Check in, tea / coffee                           |                 |
| 9.00 - 11.00  | Risk management in insurance – Scattered remarks | Lars Moormann   |
| 11.00 - 11.15 | Break  |                 |
| 11.15 – 12.15 | Regulatory view on risks                         | Sergej Simoniti |
| 12.15 – 13.15 | Modeling Risk, Capital and Solvency (1st part)   | Frank Cuypers   |
| 13.15 – 14.15 | Lunch  |                 |
| 14.15 – 15.15 | Modeling Risk, Capital and Solvency (2nd part)   | Frank Cuypers   |
| 15.15 – 15.30 | Break  |                 |
| 15.30 – 17.00 | Adventures in economic scenario generation       | Boris Cergol    |

# Wednesday 21st January 2015

| Time          | Activity   | Lecturer         |
|---------------|--|------------------|
| 8.30 – 9.00   | Tea / coffee   |                  |
| 9.00 - 11.00  | Reserve risk: connecting the "lifetime" view with the 1 year view of Solvency II | Peter England    |
| 11.00 – 11.15 | Break  |                  |
| 11.15 – 13.00 | Involving actuaries in fraud detection   | Rudi Lipovec     |
| 13.00 - 14.00 | Lunch  |                  |
| 14.00 - 15.00 | The fundaments of effective communication  | Aleksander Zadel |
| 15.00 – 15.30 | Discussions and the end of seminar   |                  |



## **ABSTRACTS:**

#### Risk management in insurance – Scattered remarks – Lars Moormann

With the advent of new risk-based regulatory regimes throughout the world risk management is becoming a pivotal role in insurance companies. The impact of these regulatory developments is further strengthened by an increased focus of insurance companies on Enterprise Risk Management (ERM) which in essence boils down to integrating risk considerations into strategic and day-to-day decision making.

In his presentation "Risk management in insurance – Scattered remarks" Lars will cover a wide range of topics connected to ERM at insurance companies. After discussing the prototypical risk management process and the role of the CRO the ORSA (Own Risk and Solvency Assessment) will be discussed on detail. On the one hand the ORSA forms the core of the new breed of supervisory systems, on the other hand the ORSA should provide the link between risk and capital management and thus connect various process which are already existing within an insurance company. A section on the use of mathmatical models complements these discussions.

European companies will be subject to Solvency II from 01.01.2016 on and thus the natural question arises which impact Solvency II will eventually have. From the various anticipated implications the presentation will look at two in more detail: impact on pricing and impact on reinsurance purchase. In both cases, it will be argued that even smaller companies will eventually adopt an economic approach towards

evaluating risk – i.e. pricing – and risk transfer – here reinsurance. The increased transparency Solvency II brings to the ability to create value will in the end enable insurance companies to base their decisions on more sophisticated analyses and better data. In order to complement the considerations practical examples from the implementation of risk management will be provided. Among others the examples touch topics like limits and triggers as well as risk management considerations within M&A activities. The last section before concluding is devoted to limitations of models. With an ever increasing reliance on models it is more important than ever to be aware of the limitations of models.

#### Modeling Risk, Capital and Solvency – Frank Cuypers

We consider risk-based solvency schemes like the Swiss Solvency Test or Solvency II, with a focus on internal models. In particular we review the main components of such models (risks, meta-risks and aggregation) and uncover some misleading fallacies and common pitfalls. We also emphasize how internal models can be used to assist tactical and strategic decision making (portfolio management, capital allocation, reinsurance optimization, pricing, etc.), and we describe how they can be validated (risk categories, model components, test procedures).



#### Reserve risk: connecting the "lifetime" view with the 1 year view of Solvency II – Peter England

This presentation will provide an overview of stochastic reserving techniques for the quantification of reserve risk commonly used by P&C insurance companies. Analytic formula based approaches will be described, as well as their simulation based analogues. The advantages of a simulation based approach will be highlighted. Two views of reserve risk will be considered: the traditional actuarial view of risk over the lifetime of the liabilities, and the 1 year view of Solvency II. The connection between the 1 year view and the lifetime view will be explored, closing the gap between the two differing views of reserve risk.

#### Adventures in economic scenario generation – Boris Cergol

Development of reliable real-world economic scenario generators typically involves dealing with a plethora of complex mathematical models. This is especially the case when modeling the dependency between risk factors where simple correlation is rapidly being replaced by different copulas. In my presentation I will discuss why some of them are worth the additional effort. I will also give some suggestions how development of ESGs might benefit by adopting certain practices from the field of artificial intelligence.

#### Involving actuaries in fraud detection – Rudi Lipovec

Insurance is subject of fraud activities for long time. Companies are aware of losses caused by fraudulent activities. In past the focus of fraud investigation was mainly set to particular claims. Recently insurance companies also engaged actuaries on the prevention side. There are also available IT tools which enables companies to detect fraudulent acts. This tools are based on systematic use of fraud indicators. The main purpose of presentation is how to isolate the indicators which are most significant in predicting the probability that a claim may be fraudulent. We will also discuss accuracy and detection capability of different models.

#### The fundaments of effective communication – Aleksander Zadel

By communication we usually mean a technique of passing information. This is important. Even more important than this however it's its function in setting up and maintaining high standard interpersonal relationship. Sometimes it takes a bad relationship with those who matter to us to remind us, that perhaps we are the ones doing something wrong. Then we question the responsibility for the bad state of the relationship. Most often we think of the other person as the reason and naturally expect that they will be the ones to change. At the same time we do not realize enough that the powerful tool with which we can influence interpersonal relationship with those important to us, lies in our hands.



### SHORT CVs:

**Lars Moormann** works as a senior consultant at Munich Re's Solvency Consulting department in the Integrated Risk Management Division. He provides consulting both within Munich Re and outside on the topics of enterprise risk management and solvency regulations, determines the impact of different regulations on reinsurance business and is responsible for developing risk-management tools and training courses. Before moving to Munich Re in 2009, Lars worked at a consulting company that focused on company pension schemes and at a business consultancy for enterprise risk management in the insurance industry, where he was responsible for managing various projects at both primary insurance and reinsurance companies. Lars holds a degree in mathematics from the University of Essen.

Frank Cuypers is a nuclear engineer, a M.Sc. in nuclear physics and a Ph.D. in theoretical physics, with a vast lecturing experience and a prominent scientific track record in modelling complex systems. He has also served as CEO for AIPPI, the leading international NGO devoted to the worldwide harmonization of Intellectual Property. As a former Swiss Re Executive and Chief Actuary at the former Zurich Re in Cologne, Frank has a wide experience in most actuarial disciplines, which he has deployed at KPMG and PwC to advise leading insurers & reinsurers. He has also been appointed by FINMA, the Swiss Regulatory Authority, to validate internal solvency models. He is a member of the German and Swiss Actuarial Associations (DAV and SAV) and currently chairs the Swiss CPD Committee. As a member of the International ASTIN Committee, Frank coaches several working parties. Moreover, he has taught numerous actuarial engineering and modelling courses for the Swiss, Spanish and Mexican Actuarial Associations. Frank is now shareholder of Prime Re Services (PRS), a general advisor and service provider for insurers & reinsurers through every stage of the business life cycle, from start-up, expansion and consolidation to run-off. He is in charge of the PRS actuarial team and services.

**Peter England** is a director at Towers Watson and has over 20 years' experience of financial and statistical modelling, predominantly in the Property & Casualty sector of the insurance industry. Peter is also involved in the development of Towers Watson software, staff and client training. He is the author (or co-author) of numerous papers, including the prize-winning Institute of Actuaries paper "Stochastic Claims Reserving in General Insurance". Peter has a BSc and PhD in Actuarial Science from City University, London. He is a Chartered Statistician, and an Honorary Fellow of the UK Institute and Faculty of Actuaries. He is also a Senior Visiting Fellow at the Cass Business School, London.

**Rudi Lipovec** is head of non-life actuarial department in Zavarovalnica Triglav. He started as reserving actuary, but also participated in product development projects. In last years he is involved in establishing actuarial function in subsidiaries of Triglav Group. He had also been engaged in education process of actuaries in Western Balkan states. He is also former president of Slovenian Actuarial Association. Rudi has a BSc in mechanical engineering and had finished actuarial education at University of Ljubljana.



**Sergej Simoniti** graduated in law at Faculty of Law of University in Ljubljana. His first employment has been as a general legal counsel at Generali d.d. insurance company in Slovenia. In the same employment he was later responsible for casualty underwriting. In 2000 he started an independent consultancy in the field of insurance. In 2002 he joined Sava re reinsurance company. He has been active on the legal issues concerning reinsurance arrangements and later for legal support in the expansion of Sava Re group in the Balkans. Furthermore he played an active role in Sava Re's initial public offering. He ended his employment with Sava Re as group compliance officer. In 2011 he has been nominated by Slovenian parliament as the director of Insurance Supervisory Agency. In this capacity he is also a member of the EIOPA's Board of Supervisors. Furthermore, he has been elected by the same body as member of EIOPA's management board. He is also a member of the Financial Stability Committee and Market Conduct subcommittee at IAIS. He has also authored various books, articles and other publications in the field of insurance both in Slovenia and abroad.

**Boris Cergol** is the CEO and co-founder of Ektimo, a start up company offering quantitative finance and predictive analytics services. He specializes in risk modeling and development of systematic investment strategies. He has a BSc in Theoretical mathematics and a PhD in Mathematical statistics from the University of Ljubljana.

**Aleksander Zadel**, PhD in psychology, employed as the director of Inštitut za osebni razvoj Corpus, Anima, Ratio. He co-founded an HR agency Competo. He lectures and researches on the Univerza na Primorskem and Inštitut Andreja Marušiča, where he co-founded the Department of Psychology. He is hired as a consultant by national and international companies, which he then helps with projects such as developing the leadership skills, motivation, HR politics and development of personal and managerial potentials of the employees.