Syllabus of Module

8. Risk Management in Insurance Companies

Lecturer: Ing. Štěpán Onder, Ph.D.

Module Annotation

The aim of the course is to extend the knowledge students have acquired in courses focused on insurance issues, especially in relation to the specification of risks of insurance institutions as financial institutions.

Module Objective

1. Solvency II - main principles. Principles underlying the new concept of capital adequacy in insurance companies. Three pillar structure, fair value principle, supervisory principle based on risk and capital management. Analysis of sources of information on this issue (CEIOPS, CEA, EU, etc.)

2. Pillar I - quantitative requirements. Quantitative calculation of capital requirements through a standardised approach and internal modelling. The essence of MCRs (Minimum Capital Requirements) and SCRs (Solvency Capital Requirements). Pillar I risks (insurance risk - life, insurance risk - non-life, market risk, credit risk, operational risk).

3. Pillar II. - qualitative requirements. Qualitative requirements for risk management and management control systems in insurance companies. Pillar II risks (liquidity, concentration, asset-liability mismatch, strategic and reputational risk).

4. Pillar III - transparency. Disclosure and transparency requirements for insurance companies. Relationship between Sovency II and IFRS 7 (risk disclosure requirements such as valuation method, exposure size, sensitivity analysis, etc.).

5. Risk management in insurance companies. Main risk categories in insurance companies according to organisational definition. The main components of underwriting risk for life and non-life insurance, as well as market risk, credit risk and operational risk. Risk management processes in an insurance company (risk management strategy, identification, evaluation, monitoring, control, measurement, management, planning, organisation and capital management).

6. Market-consistent valuation of insurance companies' liabilities and technical provisions. Principles applied in the market-consistent measurement of liabilities (fair value measurement, time value of money and discounting, risk margin, etc.). Market-consistent valuation of technical provisions.

7. Solvency II - internal model. The main principles that must be fulfilled when creating an internal model in insurance companies. The issue of internal model validation by the regulator. The principle of the internal model "use test". Results of quantitative impact studies (QIS5), especially with regard to groups and diversification effects.

8. The impact of Solvency II on insurance companies. The impact of Solvency II on the insurance company's organisational structure, management control system, risk management, IT infrastructure, etc. Data requirements, data warehousing and data integration and risk management technology. Effects on corporate culture and creation of new departments (compliance, operational risk management, etc.).

Literature

1. CIPRA, Tomáš. Kapitálová přiměřenost ve financích a solventnost v pojišťovnictví. Prague: Ekopress, 2002. ISBN 80-86119-54-8.

2. DAŇHEL, Jaroslav. Pojistná teorie. Prague: Professional Publishing, 2005. ISBN 80-86419-84-3.

3. DOFF, R. Risk Management for Insurers. London: Risk Books, 2015. ISBN 978-1904339793

4. HULL, John. Risk Management And Financial Institutions. Fourth edition. Hoboken, New Jersey: Wiley, [2015]. Wiley Finance Series. ISBN 978-1-118-95594-9.

5. MOLLER, T. Market-Valuation Methods in Life and Pension Insurance. 2007. ISBN 978-0521868778

6. ORSA, B: Design and Implementation. London: Risk Books, 2015. ISBN 978-1782722083

7. QIS5 – Technical Specification. Brussels: EIOPA, 2010.

8. RESTI, A., SIRONI, A. Risk Management and Shareholder Value. London: Risk Books, 2012. ISBN: 978-0-470-02978-7.

9. ŘEZÁČ, František. Řízení rizik v pojišťovnictví. Brno: Masarykova univerzita, Ekonomicko-správní fakulta, 2011. ISBN 978-80-210-5637-4.