INSURANCE RISK MANAGEMENT - SOLVENCY II (m63110p)

Instructors: A.ZYMPIDIS – I.CHATZIVASILOGLOU

Core Course, 4th semester, 5 ECTS units

Course level: Graduate (MSc)

Language: Greek

Course Description

- Enterprise Risk Management frameworks in the context of insurance undertakings, basic principles, the role of risk culture
- Taxonomy and classification of risks that insurance undertakings are facing
- Valuation of future cash flows, calculation of the best estimate of technical provisions in the framework of Solvency II
- Risk quantification methodologies of insurance undertakings (1-year MTM approach, Liability Run-off approach), economic capital, standard approach of Solvency II
- Asset Liability Management principles and methodologies (cash flow matching, cash flow testing, key rate durations, asset-liability adequacy tests)
- The framework and processes of holistic risk management (stakeholders, risk control, strategic risk management, emergent risk management, risk management culture)
- Scenario analysis and stress tests in an ERM framework, Own Risk and Solvency Assessment in the framework of Solvency II.

Prerequisites

Students should have basic knowledge of mathematical calculus, linear algebra, probability and statistics. Financial mathematics, Life contingencies, basic principles of investment theory, basic principles of corporate finance (e.g NPV methodologies).

Target Learning Outcomes

to understand the basic principles and elements of the risk management framework of Solvency II,

to understand the risks that insurance undertakings are facing

to understand the basic principles for the calculation of best estimate of technical provisions according to Solvency II and to be able to apply them on basic life insurance products

to understand the need of insurance undertakings to maintain solvency capital and to be able to apply different risk quantification methodologies

to understand the basic principles and methodologies of asset-liability management and to able to apply them under different contexts.

Recommended Bibliography

1. N. 4364/2016
2. Κανονισμός (ΕΕ) 2015/35
3. Πράξη Εκτελεστικής Επιτροπής ΤτΕ 81/2016, σχετικά με την αποτίμηση των τεχνικών προβλέψεων
4. Εισαγωγή στη Φερεγγυότητα ΙΙ των (αντ)ασφαλιστικών επιχειρήσεων, Ι.Χατζηβασίλογλου, Οικονομικό Δελτίο νο 44, Τράπεζα της Ελλάδος
5. Η αποτίμηση των στοιχείων ενεργητικού και υποχρεώσεων των (αντ)ασφαλιστικών επιχειρήσεων σύμφωνα με την Φερεγγυότητα ΙΙ, Ι.Χατζηβασίλογλου, Οικονομικό Δελτίο νο 45, Τράπεζα της Ελλάδος
6. Financial Enterprise Risk Management by P.Sweeting,, Cambridge University Press
7. Enterprise Risk Management – Integrated Framework by Committee of Sponsoring Organizations of the Treadway Commission (COSO)
8. Investment Science by D.Luenberger, Oxford University Press

Teaching and Learning Activities

One three-hour lecture per week, study exercises αs as homework (some to be submitted).

Assessment and Grading Methods

The final grade is the average of the final examination grade (α%) and the grade of the study and programming exercises to be submitted (100% - α %), provided that the final examination grade is at least 5/10. Otherwise, the final grade equals the final examination grade. The percentage a% varies within the range 20%-40% depending on the difficulty of the exercises each academic year.