

Workshop: Risk aggregation Requirements of IDW PS 981 & IDW PS 340

Learn how to describe risks with suitable probability distributions, measure them with suitable measures, describe correlations between risks, aggregate them using Monte Carlo simulation and visualise the results.

We offer you three different workshop options.

[One-day workshop: Topics

- Brief overview of the legal requirements
- Risk aggregation in the new IDW PS 340
- Variance-covariance approach: advantages and disadvantages
- From scenario analysis to simulation
 - Scenario analysis
 - Historical simulation
 - Monte Carlo simulation as de facto standard for risk aggregation
- Input of a Monte Carlo simulation
 - Data input and data preparation for Monte Carlo simulation
 - Experts' estimates
- To parameterisation of distributions (fitting)
- Correlations and outlook with copulae
- Results of a simulation
 - Risk measures
 - Performance measures and risk capital

We will gladly extend or modify the topic list according to your individual requirements.

[Two-day workshop: Topics

- Brief overview of the legal requirements
- Risk aggregation in the new IDW PS 340
- Various methods of risk aggregation
 - Variance-covariance approach: advantages and disadvantages
 - Historical simulation
 - Monte Carlo simulation as de facto standard for risk aggregation
 - Combination of historical simulation and Monte Carlo simulation
- Design of a simulation model
 - Purpose
 - Time horizon
 - Criteria for an appropriate segmentation of risks
 - Consideration of causal dependencies
- Calibration of the model
 - Claims data: Data cleansing, loss amount inflation, adjustment of frequency data
 - About the fitting of distribution functions
 - Methods of collecting expert estimates
 - Correlations: linear correlation or rank correlation, pitfalls
 - Use of copulae: types, calibration
- Evaluation of the simulation results
 - Risk measures
 - Performance measures
 - Risk capital and risk capital allocation

We will gladly extend or modify the topic list according to your individual requirements.

[Three-day workshop: Topics

- Brief overview of the legal requirements
- Risk aggregation in the new IDW PS 340
- Various methods of risk aggregation
 - Variance-covariance approach: advantages and disadvantages
 - Further analytical methods
 - Historical simulation
 - Monte Carlo simulation as de facto standard for risk aggregation
 - Combination of historical simulation and Monte Carlo simulation
- Design of a simulation model
 - Purpose
 - Time horizon
 - Criteria for an appropriate segmentation of risks
 - Consideration of causal dependencies
 - Sensitivity risks
- Calibration and testing of the model
 - Claims data: Data cleansing, loss amount inflation, adjustment of frequency data
 - About the fitting of distribution functions
 - Methods of collecting expert estimates
 - Correlations: linear correlation or rank correlation, pitfalls
 - Use of copulae: types, calibration
 - Testing of the simulation model
- Evaluation of the simulation results
 - Risk measures
 - Performance measures
 - Risk capital and risk capital allocation
- Outlook and further methods
 - Markov chains
 - Machine learning

We will gladly extend or modify the topic list according to your individual requirements.