QUEST
Professional Center

PROFESSIONAL TRAINING COURSE

Course No. 1859

Stress Testing for Insurance Companies Training Course

INSURANCE RISK MANAGEMENT
INSURANCE & RISK MANAGEMENT

DURATION
5 Days

DELIVERY
Classroom

Course Overview

This advanced training course provides a comprehensive framework for designing, implementing, and interpreting stress tests for insurance companies. It focuses on how insurers can assess their resilience to severe but plausible financial, underwriting, market, liquidity, operational, and emerging risks while supporting effective risk management, capital planning, and strategic decision-making.

The course examines the principles of insurance stress testing and the relationship between stress scenarios, risk exposures, solvency, capital adequacy, profitability, liquidity, and balance sheet resilience. Participants will learn how to identify material vulnerabilities and translate adverse assumptions into measurable impacts on assets, liabilities, technical provisions, capital, earnings, and key solvency indicators.

Particular attention is given to scenario design and the assessment of interconnected risks. Participants will explore market shocks, interest-rate movements, credit deterioration, equity and property declines, inflation, foreign exchange volatility, catastrophe losses, mortality and longevity changes, lapse and surrender risk, reinsurance counterparty failures, liquidity pressures, and operational disruptions.

The course adopts a practical and decision-oriented approach, covering stress-test governance, scenario calibration, data requirements, modelling approaches, sensitivity analysis, reverse stress testing, aggregation of results, management actions, and reporting. Through practical exercises and insurance case studies, participants will develop the ability to use stress testing as an effective tool for capital management, risk appetite, business planning, and organizational resilience.

Objectives

- By the end of the course, participants will be able to:
- Analyze the fundamental principles and objectives of stress testing within insurance companies.
- Identify material financial, insurance, market, credit, liquidity, operational, and emerging risk exposures.
- Design severe but plausible stress scenarios relevant to different insurance portfolios.
- Assess the impact of adverse scenarios on assets, liabilities, technical provisions, earnings, and capital.

- Evaluate the sensitivity of solvency and capital adequacy measures to key risk drivers.
- Apply scenario analysis, sensitivity testing, and reverse stress testing techniques.
- Assess the impact of catastrophe, underwriting, mortality, longevity, lapse, and claims-related stresses.
- Evaluate market and credit risk shocks and their impact on investment portfolios.
- Analyze liquidity stress and the ability of insurers to meet obligations under adverse conditions.
- Evaluate reinsurance and counterparty risks under stressed scenarios.
- Develop effective stress-testing governance, documentation, validation, and reporting frameworks.
- Translate stress-testing results into capital, risk management, and strategic management actions.

Who Should Attend

This course is designed for professionals working in insurance risk management, actuarial functions, capital management, solvency, financial planning, investment management, underwriting, and enterprise risk management.

It is particularly relevant to risk managers, actuaries, financial analysts, investment and treasury professionals, capital and solvency specialists, underwriting managers, reinsurance specialists, internal auditors, compliance professionals, and professionals responsible for risk modelling and stress-testing programs.

The course is also suitable for senior managers, executives, board-level risk professionals, and decision-makers who need to understand how stress-testing results can support capital planning, risk appetite, business strategy, regulatory preparedness, and the overall resilience of insurance organizations.

Learning Outcomes

- Upon completion of this course, participants will be able to:
- Explain the role of stress testing within an insurer's enterprise risk management framework.
- Identify the principal risk factors that can threaten an insurance company's financial resilience.
- Develop relevant and appropriately severe stress scenarios.

- Evaluate the effects of market, credit, liquidity, and underwriting shocks.
- Assess catastrophe, mortality, longevity, lapse, and claims-related stresses.
- Analyze the impact of interest-rate and inflation shocks on insurance balance sheets.
- Evaluate investment portfolio vulnerabilities under adverse market conditions.
- Assess the impact of reinsurance and counterparty deterioration.
- Interpret stress-testing results and identify key areas of vulnerability.
- Apply reverse stress testing to identify scenarios that could threaten solvency or viability.
- Evaluate capital adequacy and solvency resilience under stressed conditions.
- Develop appropriate management actions in response to identified vulnerabilities.
- Strengthen stress-testing governance, documentation, validation, and controls.
- Communicate stress-testing results effectively to senior management and decision-makers.
- Integrate stress testing into capital planning, risk appetite, and strategic decision-making.

Course Outline

DAY 01

Insurance Stress Testing Framework and Risk Identification

- Principles, objectives, and applications of stress testing in insurance.
- The role of stress testing within enterprise risk management.
- Identification of material insurance and financial risk exposures.
- Underwriting, market, credit, liquidity, operational, and strategic risks.
- Risk drivers and transmission channels within insurance balance sheets.
- Data requirements and quality considerations for stress testing.
- Stress-testing governance, roles, responsibilities, and documentation.

PRACTICAL APPLICATION

Develop an initial risk inventory and identify the key vulnerabilities of a representative insurance company.

DAY 02

Scenario Design and Insurance Risk Stress Testing

- Principles of severe but plausible scenario design.
- Scenario selection, calibration, assumptions, and time horizons.
- Underwriting and claims stress scenarios.
- Catastrophe and accumulation risk.
- Mortality, longevity, morbidity, and lapse stresses.
- Premium adequacy, claims inflation, and adverse loss development.
- Reinsurance protection and stressed recovery assumptions.

PRACTICAL APPLICATION

Design a multi-risk insurance stress scenario and assess its potential impact on underwriting performance.

DAY 03

Market, Credit, Investment and Liquidity Stress Testing

- Interest-rate and yield-curve shocks.
- Equity, property, foreign exchange, and spread risk scenarios.
- Credit deterioration and default scenarios.
- Investment portfolio concentration and correlation risks.
- Asset-liability interaction under stressed market conditions.
- Liquidity stress testing and cash-flow pressures.
- Reinsurance and counterparty default scenarios.

PRACTICAL APPLICATION

Evaluate the impact of combined market, credit, and liquidity shocks on an insurer's investment portfolio and balance sheet.

DAY 04

Capital, Solvency and Reverse Stress Testing

- Stress impacts on capital and solvency positions.
- Capital adequacy assessment under adverse scenarios.
- Effects on technical provisions, liabilities, assets, earnings, and available capital.
- Risk aggregation and diversification considerations.
- Sensitivity analysis and scenario comparison.
- Reverse stress testing and identification of critical failure scenarios.
- Management actions, capital buffers, and recovery strategies.

PRACTICAL APPLICATION

Conduct a capital and solvency stress test and identify the scenarios that could materially threaten the insurer's financial resilience.

DAY 05

Stress-Test Governance, Reporting and Strategic Integration

- Validation and review of stress-testing methodologies.
- Model risk, assumptions, limitations, and uncertainty.
- Stress-testing controls, documentation, and governance.
- Interpretation and communication of stress-testing results.
- Management reporting and decision-useful stress-test dashboards.
- Integration with capital planning, risk appetite, business planning, and strategic decisions.
- Development of remediation and resilience improvement plans.
- Continuous improvement of insurance stress-testing frameworks.

FINAL WORKSHOP

Develop an integrated stress-testing framework for an insurance company, covering risk identification, scenario design, modelling, capital and solvency impact assessment, liquidity analysis, reverse stress testing, management actions, governance, and executive reporting.

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Register or Request More Information

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