BALANCE SHEET STRESS TESTING AND RECOVERY PLANNING

GWIJI AFRICA

DECEMBER 3-5 2025
NAIROBI, KENYA.

KEY TOPICS

- Liquidity risk stress testing
- Portfolio credit risk modelling
- Credit risk stress testing
- EBalance sheet management stress testing
- Regulatory capital and RWA stress testing
- Recovery planning and reverse stress testing
- Recovery planning options and governance

Dr Tiziano Bellini, PhD (Statistics)

Course overview

The course will provide attendees with detailed tuition on stress testing and recovery planning from both theoretical as well as applied views. A hands-on perspective is followed. The use of Excel and R provides a comprehensive framework to be directly used on a day-by-day basis.

- **During the first day**, macroeconomic scenarios are investigated from both an economic as well as time series (statistical) perspectives. Margin at risk and liquidity stress testing are explored through the lenses of the traditional asset and liability management framework. Case studies help consolidating the broader understanding of the key issues risk managers need to face

- A deep dive into credit risk analysis characterizes **the second day**. An introduction to portfolio credit risk modelling is followed by the exam of the relationships with Advanced Internal Rating Based (AIRB) modelling. Links between credit risk parameters and macroeconomic variables are studied through a series of case studies. Balance sheet is then explored both in terms of asset and liability stress testing projections as well as from a profit and loss viewpoint. On the latter, the focus is on pre-provision net revenues and credit loss projections.

- During **the third day**, the regulatory capital analysis is conducted under stress by exploring the best practice in recovery planning. All key topics studied during day one and two are put into practice in order to assess the impact of adverse macroeconomic conditions on a Bank. Risk integration and reverse stress testing are studied as a key element of a comprehensive risk assessment and recovery planning process to be used both for managerial purposes as well as into the internal capital adequacy assessment process (ICAAP).

Learning objectives

- Build a complete bank stress test model, encompassing both economic and fundamental models of retail and corporate credit risk with hints on market and operational risk
- Learn how to apply models for any of Internal Capital Adequacy Assessment Process (ICAAP), external supervisor-driven stress tests or investor-driven stress tests
- Review the various approaches taken by different banks and supervisors in their capital stress testing, from a range of international experiences
- Deep understanding of the key concepts around reverse stress testing and recovery planning

Meet our Course Director

Responsible of Prometeia Risk Integration and Advisory for International Markets, including Egypt since 2022. This area of expertise include:
•Stress testing and Recovery Planning.
•Advisory on planning and enterprise risk management processes.
•Models & methodologies, development of simulation tools for integrated risk management
•IFRS 9, CECL, Loss forecasting, PD, LGD, EAD modelling.

Wide risk management experience across Europe, Africa and the Middle East. Before joining Prometeia, he was Director at BlackRock in London, Barclays Investment Bank in London, EY Advisory London, and HSBC Headquarters.
Professor at the University of Bologna: Master in Quantitative Finance
Visiting professor at Imperial College in London, the London School of Economics and Political Science, , University of Passau in Germany.
A recognized expert at international level in Stress Testing and Recovery Planning, authoring multiple books on the topic:

- **Stress Testing and Risk Integration in Banks, A Statistical Framework and Practical Software Guide (in Matlab and R), edited by Academic Press (2016)**
- **IFRS 9 and CECL Credit Risk Modelling and Validation: A Practical Guide with Examples Worked in R and SAS, edited by Academic Press (2019)**
- **Reverse Stress Testing in Banking, A Comprehensive, edited by De Gruyter (2021)**
- **Authored papers published in European Journal of Operational Research (EJOR), Computational Statistics and Data Analysis (CSDA) and other top reviewed Journals.**
- **Referees of Journal of Banking and Finance (Elsevier) and Journal of Applied Statistics (Taylor &Francis) and other top Journals.**
- **Trainer in risk management and statistics in Europe, UK, Asia, Middle East, Africa.**

Who should attend

- **·Capital management staff**
- **·Risk management staff**
- **·Bank credit analysts and portfolio managers**
- **·Treasury/ALCO staff**
- **·Quants**
- **·Senior management**
- **Bank supervisors and resolution authorities**

www.gwijiafrica.com
jgachuri@gwijiafrica.com
+254 725 375 313
+254 786 157 892

COURSE OUTLINE.

Day 1	
8.30	Registration & Coffee
9.00	Introduction to macroeconomic analysis
	- Course overview - Macroeconomic scenario analysis
10.30	Coffee Break
11.00	Time series analysis for stress testing
	- Hints on Vector Auto-Regression (VAR) and Global Vector Auto-Regression (GVAR) modelling - Case study: Macroeconomic scenario analysis in R
12.30	Lunch
13.30	Margin at risk stress testing
	- Asset and liability management gap analysis - Net interest income (NII) analysis - Behavioural modelling in R - Case study: stress test on NII behavioural modelling
15.00	Coffee Break
15.30	Liquidity risk stress testing
	- Managerial approach - Liquidity coverage ratio (LCR) - Net stable funding ratio (NSFR) - Case study: stress test on LCR and NSFR
17.00	Wrap up day 1

Day 2	
9.00	Portfolio credit risk modelling
	- CreditMetrics - Credit portfolio modelling with copulas
10.30	Coffee Break
11.00	From portfolio credit modelling to advanced internal rating based formula
	- Risk weighted asset analysis: standardized and advanced approaches - Case study: credit portfolio modelling and RWA in R
12.30	Lunch
13.30	Credit risk stress testing
	- How to link credit risk parameters and macroeconomic variables - Case study: credit risk stress testing
15.00	Coffee Break
15.30	Balance sheet management stress testing
	- Balance sheet projections - Profit and loss projections - Case study: balance sheet stress testing
17.00	Wrap up day 2

Day 3	
9.00	Regulatory capital and RWA stress testing
	- Regulatory capital analysis - RWA aggregation - Case study: capital ratios stress testing
10.30	Coffee Break
11.00	Recovery planning and reverse stress testing
	- Reverse stress testing objective function - Vulnerability thresholds - Bank specific event causing bankruptcy - Macroeconomic scenarios causing a bank's failure - Case study: what if analysis for reverse stress testing
12.30	Lunch
13.30	Recovery planning indicators
	- Strategy and scenarios - Recovery planning indicators - Case study: early warning signals
15.00	Coffee Break
15.30	Recovery planning options and governance
	- Recovery options - Governance - Case study: recovery options in action -
17.00	Wrap up day 3

This course is available as a public and in-house and can be delivered as a LVT- Live Virtual Training

SCAN TO REGISTER

CLICK TO REGISTER

$1,699 PER PERSON

THIS COVERS : 3 DAYS' TRAINING, PRINTED TRAINING MATERIALS, LUNCHEON & TEAS.

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jgachuri@gwijiafrica.com

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