

Interest Rate and Duration Risk Management Training Course

22 – 26 August 2027
Muscat

AGILE LEADERS
Training Center

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Ref: 1249_192302 **Date:** 22 – 26 August 2027 **Location:** Muscat **Fees:** 5700 Euro

Overview

Interest Rate and Duration Risk Management Training Course is a one-week advanced course for treasury and fixed-income professionals who need an Interest Rate and Duration Risk Measurement and Hedge Pack. The course connects yield-curve behavior, cash-flow timing, duration, convexity, PV01, repricing gaps, earnings and economic-value measures, stress tests, hedges, limits, and reporting. Participants calculate exposures before selecting controls. Agile Leaders Training Center presents rate risk through traceable measurement and hedge decisions.

Who Should Attend

- Teams responsible for treasury and balance-sheet interest-rate exposure
- Teams responsible for fixed-income portfolio risk and performance
- Teams responsible for asset-liability management and repricing analysis
- Teams responsible for market-risk measurement, limits, and reporting
- Teams responsible for finance, valuation, stress testing, and model review
- Teams responsible for hedge design and risk-control assurance

The course assumes participants already work with discounted cash flows and financial instruments and leaves out trading-system implementation and jurisdiction-specific capital calculations.

Departments and Industries

The course supports functions and sectors exposed to changing rates and yield curves.

- Treasury, asset-liability management, finance, and market-risk departments
- Fixed-income investment, portfolio-management, and valuation teams
- Banks, insurers, asset managers, pension funds, and investment offices
- Energy, infrastructure, manufacturing, and real-estate finance functions
- Debt-management, advisory, audit, and risk-control teams

Learning Objectives

By the end of this course, participants will be able to:

- Analyze yield-curve shifts and cash-flow repricing exposure
- Build duration, convexity, PV01, and gap measures
- Apply earnings and economic-value scenario analysis
- Evaluate behavioral assumptions and model limitations
- Use cash instruments and derivatives for hedge design
- Prioritize limits, stress evidence, and management reporting

Course Agenda

Day 1: Curves, Cash Flows, and Repricing

- Yield-Curve Level, Slope, and Curvature Map
- Discount-Factor and Present-Value Calculation Grid
- Fixed, Floating, and Reset Cash-Flow Timeline
- Repricing-Bucket and Maturity-Gap Schedule
- Gap, Basis, and Option Risk Classification Matrix

Day 2: Duration and Convexity Measures

- Macaulay and Modified Duration Calculation Sheet
- Effective Duration Scenario Method
- PV01 and DV01 Sensitivity Ladder
- Convexity Adjustment and Price-Change Approximation
- Portfolio Duration and Contribution Decomposition

Day 3: Earnings and Economic Value

- Net Interest Income Repricing Simulation
- Economic Value of Equity Cash-Flow Model
- Parallel and Nonparallel Yield-Curve Shock Set
- Basis-Risk and Optionality Assumption Register
- Earnings-versus-Value Risk Reconciliation

Day 4: Hedging, Limits, and Reporting

- Duration-Matching and Immunization Method
- Bond, Swap, and Futures Hedge-Ratio Worksheet
- Bullet, Barbell, and Convexity Trade-Off Analysis
- Interest-Rate Risk Limit and Escalation Framework
- Exposure, Stress, Hedge, and Residual-Risk Report

Day 5: Interest Rate Risk Practice

- Exercise: Yield-Curve and Repricing-Gap Diagnosis
- Exercise: Duration, PV01, and Convexity Calculation
- Exercise: Earnings and Economic-Value Stress Test
- Exercise: Hedge Ratio and Residual-Risk Challenge
- Capstone Exercise: Interest Rate and Duration Risk Measurement and Hedge Pack

Practical Exercises

The course uses suggested activities that turn rate changes into quantified decisions.

- Suggested activity: map a mixed cash-flow portfolio into repricing buckets and distinguish gap, basis, and option exposures.
- Suggested activity: calculate modified duration, PV01, convexity, and portfolio contribution for fixed-income positions.
- Suggested activity: compare net-interest-income and economic-value results under parallel and nonparallel shocks.
- Suggested activity: size a hedge, test residual exposure, and document limit and escalation decisions.

FAQs

Who should attend the Interest Rate and Duration Risk Management Training Course?

The course suits treasury, asset-liability, fixed-income, investment, finance, valuation, and market-risk professionals. It assumes working knowledge of discounted cash flows and financial instruments.

How does interest rate and duration risk management differ from fixed-income fundamentals?

Interest rate and duration risk management quantifies sensitivity, shocks, earnings, value, hedges, limits, and residual exposure, while fixed-income fundamentals introduce instruments, pricing, and yield concepts.

What is the difference between duration and PV01 in interest rate risk?

Duration expresses relative price sensitivity to a rate change, while PV01 estimates the monetary value change for a one-basis-point move. Both depend on positions, cash flows, assumptions, and the selected curve movement.

Why are convexity and nonparallel yield-curve shocks needed?

Convexity improves estimates when price responses are nonlinear, while nonparallel shocks reveal exposures that a single parallel-shift measure can conceal across maturities and curve segments.

Conclusion

The course links cash flows, repricing, duration, convexity, earnings, economic value, shocks, hedges, limits, and reporting. Participants take back an Interest Rate and Duration Risk Measurement and Hedge Pack with calculation, scenario, control, and reporting artifacts. The pack makes assumptions, exposure, hedge choices, residual risk, and escalation decisions easier to test.