Derivatives Valuation Hedging and Risk Management Training Course

1 – 12 March 2027
Addis Ababa

AGILE LEADERS
Training Center

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Ref: 394_223611 **Date:** 1 – 12 March 2027 **Location:** Addis Ababa **Fees:** 6400 Euro

Overview

Derivatives Valuation Hedging and Risk Management Training Course is a two-week advanced course for finance and markets professionals who leave with a Derivatives Valuation, Hedge, and Control Portfolio. The course connects contract mechanics, payoff analysis, no-arbitrage valuation, rates, currencies, equities, commodities, options, swaps, portfolio hedging, counterparty exposure, collateral, and governance. Participants convert market objectives into priced, risk-aware, controlled derivative decisions. Agile Leaders Training Center delivers this course on derivatives valuation, hedging, and risk management.

Who Should Attend

- Treasury functions responsible for funding, rates, currencies, and hedge execution
- Investment functions responsible for portfolio exposures and derivative strategies
- Market risk functions responsible for sensitivities, limits, stress tests, and reporting
- Finance functions responsible for valuation oversight and hedge decisions
- Operations and control functions responsible for confirmations, collateral, and lifecycle events

The course assumes participants already use financial mathematics and market data and leaves out introductory accounting and ungoverned speculative trading.

Departments and Industries

The course supports derivatives valuation, hedging, and risk management across financial and commercial organizations.

- Treasury, investment, market risk, finance, and product-control departments
- Banking, asset management, insurance, and securities organizations
- Energy, commodities, transportation, and industrial organizations
- Corporate finance, pension, and institutional investment functions
- Market operations, collateral, legal, and governance functions

Learning Objectives

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

- Analyze derivative payoffs and market conventions
- Apply no-arbitrage valuation to forwards, futures, swaps, and options
- Build hedges for rate, currency, equity, and commodity exposures
- Evaluate sensitivities, basis risk, and stress scenarios
- Assess counterparty exposure, collateral, and lifecycle controls
- Design a governed derivatives portfolio recommendation

Course Agenda

Day 1: Derivative Markets and Payoffs

- Derivative Instrument and Market Structure Map
- Forward Commitment and Contingent Claim Classification
- Long-Short Payoff Diagram Construction
- Contract Specification and Market Convention Checklist
- Derivative Use-Case and Risk Boundary Canvas

Day 2: Forward and Futures Valuation

- No-Arbitrage Cash-and-Carry Framework
- Forward Price and Contract Value Model
- Futures Daily Settlement and Margin Flow
- Basis, Convergence, and Roll Analysis
- Forward-Futures Valuation Case Model

Day 3: Interest Rate and Currency Instruments

- Interest Rate Forward and FRA Cash-Flow Map
- Yield Curve Discounting and Forward Rate Grid
- Currency Forward Points and Covered-Parity Model
- Cross-Currency Exposure and Hedge Ratio
- Rate-Currency Scenario Analysis

Day 4: Swaps and Cash-Flow Transformation

- Interest Rate Swap Fixed-Floating Cash-Flow Model
- Swap Rate and Present-Value Calculation
- Currency Swap Principal and Coupon Map
- Commodity and Equity Swap Exposure Grid
- Swap Sensitivity and Revaluation Worksheet

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Day 5: Options and Volatility

- Call-Put Payoff and Profit Diagram
- Put-Call Parity Replication Framework
- Binomial Option Valuation Tree
- Option Greek Sensitivity Dashboard
- Implied Volatility and Scenario Surface

Day 6: Option Strategies and Structured Payoffs

- Protective Put and Covered Call Design
- Spread, Straddle, and Collar Payoff Matrix
- Barrier and Path-Dependency Risk Map
- Structured Payoff Decomposition Method
- Strategy Suitability and Downside Test

Day 7: Portfolio Hedging Applications

- Minimum-Variance Futures Hedge Ratio
- Duration-Based Interest Rate Hedge Model
- Currency Overlay Hedge Decision Grid
- Equity Beta and Index Futures Hedge
- Commodity Exposure and Basis-Risk Register

Day 8: Market Risk and Model Challenge

- Delta-Gamma Sensitivity Aggregation
- Value-at-Risk Assumption Review
- Historical and Hypothetical Stress-Test Design
- Model Input and Independent Price Verification
- Limit, Escalation, and Risk Reporting Pack

Day 9: Counterparty, Collateral, and Controls

- Current and Potential Future Exposure Profile
- Netting Set and Closeout Agreement Map
- Initial and Variation Margin Workflow
- Collateral Eligibility and Haircut Checklist
- Trade Lifecycle and Confirmation Control Matrix

Day 10: Derivatives Portfolio Practice

- Suggested Exercise: Forward and Swap Valuation Challenge
- Suggested Exercise: Option Strategy and Greek Review
- Suggested Exercise: Multi-Asset Hedge Design
- Suggested Exercise: Counterparty and Collateral Control Review
- Capstone Exercise: Derivatives Valuation, Hedge, and Control Portfolio

Practical Exercises

The course uses suggested activities to connect pricing, exposure management, and operational control.

- Suggested activity: value a rate swap and explain sensitivity to curve movements.
- Suggested activity: design a currency and commodity hedge for an industrial cash-flow case.
- Suggested activity: compare option strategies under changing price and volatility scenarios.
- Suggested activity: challenge counterparty exposure, margin, and collateral decisions.

FAQs

Who suits derivatives valuation, hedging, and risk management training, and what does it assume?

Derivatives valuation, hedging, and risk management training suits treasury, investment, risk, finance, operations, and control professionals who already work with financial mathematics, cash flows, and market data.

How does advanced derivatives training differ from an introductory finance course?

Advanced derivatives training prices contracts, analyzes sensitivities, designs hedges, tests scenarios, and governs counterparty and lifecycle risks, while introductory finance establishes general market and instrument concepts.

How are derivative prices linked to no-arbitrage valuation?

No-arbitrage valuation links a derivative to replicating cash flows, financing, income, carrying costs, discount factors, and market conventions so inconsistent prices imply a tradable difference before costs and constraints.

What makes a derivatives hedge effective?

An effective derivatives hedge matches the material exposure, horizon, instrument sensitivity, liquidity, basis behavior, sizing method, rebalancing rule, cost, and governance limits while recognizing residual risk.

How should counterparty risk be controlled in derivatives?

Counterparty risk should be controlled through exposure measurement, credit limits, enforceable netting, margin, eligible collateral, concentration monitoring, wrong-way-risk review, documentation, escalation, and closeout readiness.

Conclusion

Participants leave with a Derivatives Valuation, Hedge, and Control Portfolio containing pricing models, payoff diagrams, hedge designs, sensitivity analysis, stress tests, exposure profiles, collateral controls, and a governance recommendation. The portfolio changes disconnected calculations into traceable decisions. It supports treasury, investment, risk, and oversight discussions across the derivative lifecycle.