MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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ADVANCED CREDIT RISK ANALYSIS FOR DERIVATIVES

"Mastering Counterparty Risk, Credit Valuation Adjustments (CVA), and Regulatory Frameworks"

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

The increasing complexity and volume of derivative transactions demand a robust framework for analyzing and managing credit risk. As counterparty exposures grow and regulations become more stringent, financial professionals must understand the intricacies of credit risk in derivatives and master tools for mitigation, pricing, and compliance.

This course offers advanced insights into credit risk measurement, Credit Valuation Adjustment (CVA), Potential Future Exposure (PFE), collateral management, netting, and regulatory capital requirements. Using real-world case studies and simulation models, it equips participants with both the analytical and strategic tools needed to handle derivative credit risk effectively.

Objectives

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

- Understand the nature and sources of credit risk in derivative products
- Calculate and interpret CVA, DVA, and other valuation adjustments
- Measure potential future exposure (PFE) using advanced modeling techniques
- Implement effective collateral and netting strategies to reduce credit exposure
- Apply Basel III/IV credit risk capital requirements for derivative instruments

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Why Attend

- Gain technical mastery of CVA/DVA and credit risk pricing models
- Understand how to model exposure profiles for swaps, options, and structured derivatives
- Learn regulatory compliance requirements for counterparty credit risk
- Improve institutional resilience by applying credit risk mitigation techniques
- Engage in practical simulations of credit exposure and risk measurement

Target Audience

This program is designed for:

- Credit risk analysts and managers
- Derivatives traders and structurers
- Treasury and risk control professionals
- Financial regulators and compliance officers
- Quantitative analysts and modelers

Individual Benefits

Key competencies that will be developed include:

- Quantitative credit exposure analysis
- Mastery of credit valuation adjustments and risk pricing
- Practical application of collateral and netting agreements
- Understanding of capital impacts and regulatory frameworks
- Use of scenario and stress testing for derivative portfolios

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved assessment and management of counterparty credit risk
- Enhanced ability to meet regulatory credit capital standards
- Reduced financial and reputational exposure from derivative activities
- Effective integration of credit risk controls into trading operations
- More robust risk reporting and governance for OTC and cleared derivatives

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Focused discussions on credit risk concepts, CVA/DVA, and regulatory frameworks
- Case Studies – Practical examples of credit events, exposures, and risk mitigations
- Workshops – Modeling exposure profiles, calculating CVA, and simulating credit events
- Peer Exchange – Experience-sharing discussions on internal credit risk practices
- Tools – Templates and Excel models for credit exposure, CVA calculations, and stress scenarios

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Course Outline

DETAILED 5-DAY COURSE OUTLINE (Customizable)

Training Hours: 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Fundamentals of Credit Risk in Derivatives

- Module 1: Introduction to Credit Risk in Derivatives (07:30 – 09:30)
- Types and sources of credit risk in OTC and exchange-traded derivatives
- Distinguishing default risk vs. exposure risk
- Credit events, credit spreads, and loss given default
- Module 2: Exposure Measurement Techniques (09:45 – 11:15)
- Current exposure vs. potential future exposure (PFE)
- Exposure profiles for swaps, options, and structured products
- Monte Carlo simulation methods for exposure modeling
- Module 3: Legal Frameworks and Credit Mitigation (11:30 – 01:00)
- ISDA Master Agreements and Credit Support Annexes (CSAs)
- Netting and collateral agreements
- Wrong-way risk and enforceability

Day 2: Credit Valuation Adjustments (CVA) and XVA Frameworks

- Module 1: CVA Concepts and Pricing Models (07:30 – 09:30)
- Definition and drivers of CVA and DVA
- Market-based vs. model-based CVA calculation
- Expected exposure, probability of default, and LGD integration
- Module 2: Advanced XVA Components (09:45 – 11:15)
- Funding Valuation Adjustment (FVA)
- Collateral Valuation Adjustment (ColVA)
- Capital Valuation Adjustment (KVA) and Margin Valuation Adjustment (MVA)
- Module 3: Practical CVA Calculation (11:30 – 01:00)
- Step-by-step CVA modeling in Excel
- Simulating counterparty risk scenarios
- CVA sensitivity analysis and pricing implications

Day 3: Counterparty Risk Management Strategies

- Module 1: Collateral and Margining Practices (07:30 – 09:30)
- Collateral types, thresholds, and haircuts
- Initial vs. variation margin requirements
- Collateral optimization and dispute resolution
- Module 2: Central Clearing and CCP Risk (09:45 – 11:15)
- Clearinghouses and their impact on credit risk
- Default fund contributions and waterfall structures
- CCP risk concentration and systemic risk
- Module 3: Bilateral vs. Cleared Transactions (11:30 – 01:00)
- Trade-off analysis for bilateral vs. cleared derivatives
- Regulatory incentives for central clearing
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Impact on CVA, capital, and funding

Day 4: Regulatory Capital and Stress Testing

- Module 1: Basel Frameworks for Credit Risk (07:30 – 09:30)
- Basel III/IV requirements for CCR, CVA risk, and SA-CCR
- Counterparty Credit Risk Capital (CCR)
- Credit Risk Mitigation techniques recognized by regulators
- Module 2: Internal Models and Compliance (09:45 – 11:15)
- IMM vs. standardized approaches
- Supervisory Volatility Adjustments and risk weights
- Model governance and regulatory audits
- Module 3: Stress Testing and Scenario Analysis (11:30 – 01:00)
- Credit exposure stress testing
- Wrong-way risk scenarios
- Reverse stress testing methodologies

Day 5: Strategic Applications and Case Reviews

- Module 1: Integrating Credit Risk with Trading Decisions (07:30 – 09:30)
- CVA desks and pricing adjustments in trading
- Real-time exposure management
- Credit risk-adjusted decision-making
- Module 2: Emerging Trends in Credit Risk (09:45 – 11:15)
- Machine learning for credit risk analytics
- ESG factors and climate-related credit risk
- FinTech and digital derivatives risk
- Module 3: Final Workshop and Wrap-Up (11:30 – 01:00)
- Group exercise: modeling CVA/PFE for a portfolio
- Participant presentations and feedback
- Action planning and closing remarks

Certification

Participants will receive a Certificate of Completion in Advanced Credit Risk Analysis for Derivatives, validating their capability in managing derivative-related credit exposures and applying CVA, collateral, and regulatory practices in real-world financial environments

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**

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