



**Latest Developments:  
Credit Derivatives Pricing & Modeling,  
CDOs, CPDOs, Credit Hybrids & CPPI**

**Central London 26th – 30th March 2007**

---

---

Register to ANY combination of the five days in the workshop

ANY TWO days and receive £200 discount

ANY THREE days and receive £300 discount

ANY FOUR days and receive £400 discount

ALL FIVE days and receive £600 discount

---

## Topics:

### Day 1: Latest Developments: Collateralized Debt Obligations

- Evolution of CDO correlation models:
- Gaussian copula; base correlations; extensions
- Modeling correlations by dynamic conditioning
- Pricing concentration bespoke tranches
- Temporal aggregation of realized correlation
- Optimal dynamic hedging in a dynamic spread-default environment
- Modelling portfolio credit derivatives - trading applications
- Credit option strategies - Trading strategies used by market participants and structured products built around them.
- CDOs in a portfolio context - How to integrate CDOs into the overall asset allocation process

Presenters:

**Claudio Albanese:** Bloomberg LP, New York & Imperial College London

**Lorenzo Isla:** Head - CDO / Structured Credit Research, Barclays Capital

**Vivek Kapoor:** Executive Director, UBS Investment Bank

**Richard Martin:** Director, Head of Quantitative Credit Strategy, Credit Suisse

### Day 2: Pricing Issues in Structured Credit

- Structural models and asset correlation
- Pricing of synthetic CDO tranches
- Implementing Copula models, analytical and Monte Carlo pricing
- Pricing bespoke portfolios
- Copula Skew Models
- CPDOs
- Models for Gap Risk
- Advanced Models and Exotic CDOs

Presenter:

**Jon Gregory:** Global Head of Credit Derivatives Research, Barclays Capital

### Day 3: Pricing Models for Credit Hybrid Securities

- Hybrid risk factor component
- Dependency between credit risk and hybrid risk
- Intensity-based models
- Copula models: How to incorporate external risk factors into a default-time model
- Credit Equity Hybrids
- Credit interest-rate hybrids
- Credit FX hybrids
- Credit Commodity hybrids

Presenter:

**Philipp Schönbucher:** Assistant Professor, Risk Management, (ETH) Zurich

## Day 4: Credit Derivatives & Hybrids

- **Credit Correlation: Interpolation, Extrapolation and Dynamics**
- **Problems with Base Correlation**
- **Implied Loss Surfaces**
- **Mapping Correlation on Bespoke Portfolios**
- **Dynamical Loss Models for next Generation Products**
- **Testing the Mapping Methods: iTraxx vs CDX**
- **Hints at CPDO's and Pool Spread Dynamics**

Presenters:

**Damiano Brigo:** Head of Credit Models, Banca IMI

**Roberto Torresetti:** Quantitative Analyst, Banca IMI

## Day 5: Credit CPPI & CPDOs

- **The CPPI structure in the equity world**
- **The CPPI in the credit universe#**
- **Characteristics of a CPPI strategy**
- **Designing a CPPI correlation trade**
- **Fully-managed Credit CPPIs**
- **Credit spread / Jump-to-default / Credit correlation**
- **Practical Calibration of the Models**
- **CPDOs**

Presenters:

**Jerome Brun:** Head of Quantitative Credit Research, Société Générale

**Julien Turc:** Head of Quantitative Credit Strategy, Société Générale

## Day 1: Latest Developments: Collateralized Debt Obligations

09:00 – 10:15 / Evolution of CDO Modelling:  
1 hour 15 minutes / Richard Martin, Credit Suisse

**What are models for?**

- Evolution of CDO correlation models:
- Gaussian copula; base correlations; extensions
- Pool-based models - not necessarily an improvement

**Trading and Strategy**

- What drives the market
- Risks associated with correlation positions e.g. the simple carry trade
- Ways of identifying good trades
- Deltas
- Recent case study

**Where do the models need to go?**

- Tranche options

10:15 – 10:30 Break

10:30 – 12:30 / Pricing and Hedging of Synthetic Bespoke CDOs:  
2 hours / Claudio Albanese, Bloomberg LP, New York &  
/ Imperial College London

- Dynamic credit models
- Stochastic drift versus stochastic volatility
- Modeling correlations by dynamic conditioning
- Sector and currency specificities of aspect ratios for single name CDS curves
- Assessing the market price of credit risk
- Calibrating to the index basis and index tranche spreads
- Pricing concentration bespoke tranches
- Assessing spread, correlation and recovery sensitivities
- Forward starting tranches and tranche options

12:30 – 13:45 Lunch

## 13:45 – 15:15 / Synthetic CDO Risk-Return Dynamics:

1 hour 30 minutes / Vivek Kapoor, UBS Investment Bank

Vivek will demonstrate how the standard model interacts with reality and how that influences the view of someone charged with a P&L target, and a finite risk appetite. This includes new modeling approaches taken to elucidate risk-return characteristics and a direct hedging-attempted replication view of the CDO opportunity set.

### Background

- Sample trades
- Credit-correlation risk sensitivities
- Carry versus risk

### CDX Case Study

- Spread dispersion
- Temporal aggregation of realized correlation
- Delta-hedger's fantasy and nightmare
- Evolution of carry and default risk

### Direct Hedging-Replication Analysis

- What about replication?
- Variance and expected shortfall minimization
- Optimal static hedging of defaults
- Carry versus wealth change distribution
- Optimal hedge implied correlation skew
- Optimal dynamic hedging in a dynamic spread-default environment

15:15 – 15:30 Break

## 15:30 – 17:00 / Modelling Portfolio Credit Derivatives -

1 hour 30 minutes / Trading Applications

/ Lorenzo Isla, Barclays Capital

- Relative value models in the tranche market
- Value flows in the CDO market, a PCA relative value tool
- Understanding the term structure of tranche spreads - using dynamic correlation term structure models - application: trading off-the-run tranches
- Credit CPPI and CPDOs - modelling and relative value
- Credit option strategies - trading strategies used by market participants and structured products built around them
- Different ways of trading equity risk - trading IO/PO risk and forward trades
- Building risk management tools for portfolios of credit derivatives
- CDOs in a portfolio context - how to integrate CDOs into the overall asset allocation process

## Day 2: Pricing Issues in Structured Credit: Jon Gregory, Barclays Capital

### 09:00 – 10:30 / Modelling Credit Correlation

- **Default correlation**
- **The Gaussian copula model**
- **Alternative copula approaches**
- **Pricing of synthetic CDO tranches**
- **Implementing copula models, analytical and Monte Carlo pricing**

10:30 – 10:45 Break

### 10:45 – 12:30 / The Correlation Skew

- **Base correlation**
- **Skew in the strike dimension**
- **Skew in the maturity dimension**
- **Pricing bespoke portfolios**
- **Skew models**

12:30 – 13:30 Lunch

### 13:30 – 15:00 / Other Leveraged Credit Products

- **CPPI structures**
- **CPDO**
- **Leveraged super senior tranches**
- **Models for gap risk**

15:00 – 15:15 Afternoon Break

### 15:15 – 17:00 / Advanced Models and Exotic CDOs

- **Barbell and long/short portfolios**
- **Forward starting CDOs and tranche options**
- **Loss surface approaches**
- **The implied copula approach**
- **Dynamic models**

## Day 3: Pricing Models for Credit Hybrid Securities: Philipp Schönbucher, (ETH) Zurich

09:00 – 10:30 / General considerations

### Requirements for hybrid modelling

- Credit risk component
- Hybrid risk factor component
- Dependency between credit risk and hybrid risk
- Hedging methodology and strategies

### Credit Risk Components: Single-name models

- Firm's value models
- Intensity-based models

### Portfolio credit risk models

- Copula models: How to incorporate external risk factors into a default-time model
- Multivariate intensity models: The modelling approach

10:30 – 10:45 Break

10:45 – 12:30: / The Loss Market Modelling Approach

### The loss market modelling approach

- Calibration to the correlation smile
- Equipping the loss distribution with arbitrage-free dynamics
- Parametrisation of the dynamics: Stochastic spreads

### How this approach can simplify the modelling requirements

#### Places to incorporate external risk factors

- Adding interest-rate dynamics
- Adding other risk factors

### Numerical implementation

12:30 – 13:30 Lunch

13:30 – 15:30 / Credit Equity Hybrids

### Barrier-default firm's value models

- Their structure, their strengths, their weaknesses
- Modifications and extensions of this modelling approach

### Simple credit-equity models with a “jump-to-default”

#### Portfolio credit-equity models

15:30 – 15:45 Break

**Credit interest-rate hybrids**

- **Calibration problems with stochastic interest-rates**

**Credit FX hybrids**

- **Pricing quantoed credit protection**
- **Case study: Currency risk in**

**Credit Commodity hybrids**

- **Incorporating sovereign event risks**

**How to parametrize these risk factors**

## Day 4: Credit Derivatives & Hybrids

Damiano Brigo & Roberto Torresetti, Banca IMI

### 09:00 – 10:30 / Implied Correlation

- **Credit Correlation: Compound and Base**
- **Problems with Compound Correlation**
- **Problems with Base Correlation**
- **Consistency at single tranche level**
- **Negative Expected Tranche Losses Profiles**

10:30 – 10:45 Break

### 10:45 – 12:30 / Implied Expected Tranche Loss

- **A model independent approach?**
- **Implied Expected Tranche Loss Surfaces**

12:30 – 13:30 Lunch

### 13:30 – 15:00 / Mapping Correlation Information Across Pools

- **Mapping Correlation on Bespoke Portfolios**
- **Testing the mapping methods: iTraxx vs CDX**

15:00 – 15:15 Break

### 15:15 – 17:00 / Dynamic Loss Models

- **Dynamic Loss Models for next Generation Products**
- **The GPL and GPCL approaches to loss dynamics**
- **Hints at CPDO's and pool spread dynamics**

## Day 5: Credit CPPI & CPDOs

09:00 – 12:30 / Assessing Risks and Managing a CPPI:  
3 hours 15 minutes / Julien Turc, Société Générale

### The CPPI Structure in the Equity World

- Description of an equity CPPI
- Impact of the gearing factor
- Funding limits and negative impact of volatility

### The CPPI in the Credit Universe

- From the constant gearing factor to the Value-at-Risk
- Impact of default and carry
- Mean-reversion in a CPPI

### A Few CPPI Strategies

- Long stock vs. short protection
- Characteristics of a CPPI strategy

### Credit Focus

- Trading CDS curves
- Designing a CPPI correlation trade

10:30 – 10:45 Break

12:30 – 13:45 Lunch

**13:45 – 17:00 / VaR of a Structured Credit Portfolio:**

**3 hours**

**/ A Flexible Tool to Manage Credit CPPI or  
/ Counterparty Risk: Jerome Brun, Société Générale**

#### **The Need for a Risk Measure**

- **Fully-managed Credit CPPIs**
- **VaR and Conditional VaR**

#### **The Risks Involved**

- **Credit spread / Jump-to-default / Credit correlation**
- **Why a model for these risks ?**
- **What model for these risks ?**

#### **Practical Calibration of the Models**

- **Available data**
- **Monte-Carlo Vs. semi-analytical**
- **Sum of VaRs Vs. VaR of sum**

#### **Examples on Real-Life Strategies**

- **Orders of magnitude**
- **Netting**
- **Stability over time**

#### **Other Applications**

- **Counterparty exposure**
- **Towards efficient prime brokerage**

#### **CPDOs: 45 minutes**

- **"CDO or CPPI? go for CPDO!"**
- **Mechanics of the leverage**
- **Why it works : a guided example**

15 :15 – 15 :30 Break

**Workshop Fees:**

- Any One day: £999 + UK VAT
- Any Two days: £1798 + UK VAT  
(Including £200 Discount)
- Any Three days: £2697 + UK VAT  
(Including £300 Discount)
- Any Four days: £3596 + UK VAT  
(Including £400 Discount)
- All Five days: £4395 + UK VAT  
(Including £600 Discount)

30% discount Academic delegates

**Delegate details:**

Company:	
Name:	
Position:	
Name:	
Position:	
Name:	
Position:	
Department:	
Address:	
Country:	
Phone:	
E mail:	
Date:	
Signature:	

**To register please fax the completed booking form to:**

**Fax: +44 (0) 1273 201360**

**Flight details:**

All delegates flying into London on the morning of the event are reminded that they should arrive 30 minutes before the workshop starts for registration. The hotels West End location is approximately 1 hour from all 3 main London airports, Heathrow, Gatwick and City. Returning flights should equally allow for the events finishing time.

**Complimentary inbound transfer service:**

WBS Training now extend our premium service to all our clients. This includes a complimentary inbound transfer from London airports to central London hotels for all workshops. If you require this service simply inform us up to 2 working days prior to your arrival (flight number, arrival time, airport and hotel destination) and we will arrange a complimentary pick up. You will be given a phone number to call on arrival and will be greeted at the airport by our partner taxi company.

**Sponsorship:**

World Business strategies Ltd, offer sponsorship opportunities for all events, E-mail headers and the web site.  
 Contact Sponsorship: +44 (0) 1273 674400

**Disclaimer:**

World business strategies command the rights to cancel or alter any part of this programme.

**Cancellation:**

By completing of this form the client hereby enters into a agreement stating that if a cancellation is made by fax or writing within two weeks of the event date no refund shall be given. However in certain circumstances a credit note maybe issued for future events.

Prior to the two week deadline, cancellations are subject to a fee of 25% of the overall course cost.

**Discount Structure:**

The discount is available on any day permutation, and can be combined across delegates within the same company (only at the time of booking and not retrospectively).

**Registration:**

Tel: +44 (0) 1273 201352  
 Fax: +44 (0) 1273 201360

**Contact:**

<http://www.wbstraining.com>  
[sales@wbstraining.com](mailto:sales@wbstraining.com)