

Derivatives: Credit & Market Risk Perspectives



Objectives:

During this programme participants will:

- Look at the uses, cash flows and valuations of interest rate derivatives.
- Examine basis swaps and their costs or benefits
- See how cross currency swaps can manage funding and translation risk
- Understand PFE implications, credit and market risk factors of key derivative products.
- Take a deeper look at how rate options can be used to potentially reduce funding costs or enhance yield.
- Cover suitability and appropriateness
- Explore currency options and various structures
- Explore key concepts of XVA
- Discuss key risk mitigants used to manage counterparty risk

Training methodology:

The programme is highly interactive and it will encourage participation through exercises and case studies, which the delegates will solve individually or in small work-groups.

These activities are designed to allow delegates to practice and to consolidate the concepts that will be discussed during the lectured sessions of the program.

Who should attend:

The programme is designed for:

- Market & Credit Risk teams
- Senior Relationship Managers
- Middle Office

Course times:

Course Time: 0900 - 1700

Introduction

The Course Director will present a brief overview of the programme and its objectives

Interest Rate Swaps

- Value at Risk concepts
- The uses and mechanics of a profit rate swap
 - Why is interest rate hedging applicable at the moment?
 - Cash flow calculations
 - PV01 / PVBP: It's all about discounting!

Exercise: Calculating mark-to-market on a profit rate swap intuitively

- Counterparty Credit Risk 1
- Potential Future Exposure (PFE) and the risk envelope for an IRS
- Expected Exposure: Effects of netting & collateral
 - Payment structure risk
 - Is it better to pay or receive from a risk limit perspective?

Bond Markets

- Overview of the fixed income markets
 - Intuitive bond pricing and its relationship to credit and yield curve changes
 - Bond price sensitivity
 - Macaulay versus modified duration
 - The relationship of DV01 to PV01
 - The role of the middle office in valuing and monitoring positions

Exercise: Bond pricing
Duration true or false quiz

Basis Swaps

- Single currency basis swaps
 - Managing yield curve risk in ALM
- Cross currency basis swaps
 - Value drivers (such as supply and demand)
 - Identifying where they make or break a deal
 - Relevance to new issues and asset swaps
- Conversion factors
 - Relevance to multi-currency facilities and asset swaps

Exercise: Calculate mark-to-market on a cross currency swap for restructuring

- Potential Future Exposure (PFE) and the risk envelope for a cross currency swap

Interest Rate Options

- Fundamental structures
- Intuitive valuation
 - Caps, floors, collars
 - Option-linked funding
 - Flexi swaps
- Ways to reduce premium outlay
 - Cap spreads
 - Step-up strikes
 - Limiting caplet exercise
- Suitability and appropriateness
- Target Redemption Forwards

Exercise: Mini Cases involving profit rate options

**Option Pricing
Fundamentals**

- Black-Scholes
 - Volatility: Historical versus implied
 - Brief overview of the key Greeks: Delta, Gamma, Theta, Vega

Counterparty Credit Risk

- Bilateral risk: Close-out netting and collateral / margining through a Credit Support Annexe (CSA)
- Central Counterparty Clearing: the role of the clearing houses and the effect upon swap spreads
- XVA Overview: What is it all about?

Course Review