

CAPITAL MARKETS OVERVIEW

COURSE OUTLINE

Objectives:

During this programme participants will:

- Examine the inter-relationship between the main short- and long-term financial cash and derivative products
- Analyze the cash flow characteristics of these financial instruments
- Develop an understanding of the use of derivative instruments in risk mitigation and structuring
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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.

The program will focus on the practical realities of the market, rather than taking an excessively mathematical or academic approach.

Who should attend:

The programme is designed for:

- Relationship Bankers
- Finance and Treasury staff
- Credit Analysts
- Investment Managers

Course times:

Each day of the course starts at 08:30am.

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	Introduction from the Course Director
Module 1: Structure and Dynamics of the Financial Markets	<ul style="list-style-type: none">▪ Historical overview - from collapse of Bretton Woods to Maastricht▪ Lending, borrowing, buying, selling - how banks make money▪ Markets: domestic & international▪ Players: hedgers, traders, arbitrageurs, investors and issuers <p>Exercise: Discussion of the role of hedge funds</p>
Module 2: Review of Financial Mathematics	<ul style="list-style-type: none">▪ Compounding & discounting - basic financial math▪ Valuing cash flows▪ Nominal and effective rates▪ NPV and the use of internal rate of return (IRR) <p>Exercise: Exercises on financial mathematics</p>
Module 3: Money Market Instruments	<ul style="list-style-type: none">▪ Deposits and certificates of deposit▪ Treasury bills and eligible bills/bankers acceptances▪ US and Euro-commercial paper▪ Repos▪ Central Bank Money Market operations <p>Exercise: Choosing highest yielding asset (</p>
Module 4: Spot & Forwards FX Markets	<ul style="list-style-type: none">▪ What is FX exposure?▪ Spot pricing and quoting conventions▪ Deriving Cross Rates▪ Deriving the forward rate▪ Role of interest rate differentials▪ Calculating forward points using the cash flows▪ Forward cross rates <p>Exercise: Calculating forward foreign exchange rates</p>
Module 5: FX Swaps and Interest Rate Arbitrage	<ul style="list-style-type: none">▪ FX Swap conventions▪ Cash flows in an FX swap▪ Creating arbitrage opportunities with FX swaps▪ Covered interest arbitrage <p>Exercise: Arbitraging FX markets for investment opportunities</p>

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Module 6 Forward/Forward Interest Rates

- Short term interest rate risk
- Interpreting a forward curve
- Where do the numbers come from?
- Relationship to swap rates

Module 7: Short Term Interest Rate Derivatives

- Forward-forwards
- Forward Rate Agreements
- Introduction to STIR futures

Exercise: Short term interest rate case study

Module 8: Bond Pricing

- Understanding the price / yield relationship
- Building blocks in fixed income pricing
- Understanding the IRR quality of yield-to-maturity

Exercise: Exercises with bond price and bond yield calculations

Module 9: Sensitivity Analysis of Fixed Income

- Concept and applications of duration
- Calculating Macaulay duration and modified duration
- The impact of convexity
- Using sensitivity as a risk management measure

Exercise: Using duration to assist in hedging a portfolio

Module 10: Yield Curve Theory and Construction

- Par, zero and forward curve definitions
- Yield curve theory
- Constructing discount factors
- Calculating forward rates from discount factors

Exercise: Bootstrapping the yield curve

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Module 11: Interest Rate Swaps

- Eonia (OIS) Swaps
 - How is Eonia calculated
 - Why and how is it used?
- Interest rate swaps
 - Mechanics
- Swap spreads
 - Relevance to new issues / private placements and asset swaps
- Mark to market

Exercise: Calculating portfolio adjustments for an investment fund

Module 12: New Issues

- Coordination and information flows between Originations, the Relationship Banker and the Derivatives Desks (trading & sales)
- Pre-hedging discussions prior to the issue
- Issuance process
- Post Issuance

Exercise: Price a new issue and propose pre- and post-issuance derivative structures

Module 13: GAP Risk

- Calculating interest rate risk
 - Matched Maturity Marginal Value of Funds
 - Re-pricing buckets
 - Simulation model
 - Duration of equity

Module 14: Basis Swaps

- Single currency vs. cross currency
- Screen snapshot
 - What affects price (supply / demand)
- Importance of principal exchange in cross currency basis swaps
- Applications in hedging translation exposure
 - Cashflows
 - Reasons for hedging translation risk on assets
- Basis Point Conversion Factors
 - Calculation and importance
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Exercise: Hedging translation exposure with cross currency basis swaps

Module 15: Cross Currency Swaps

- IRS + basis swap
- Importance of principal exchange (both spot & forward starts)
- Motivation for exchange of principal
- What is forward foreign exchange and how does it relate to cross currency swaps?
- Why and when used
- Buyout pricing
- Impacts of FX and interest moves

Exercise: Cross currency swap revaluation

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Module 16: Asset Swaps

- Comparison to outright purchase of FRNS and bonds
- Using discount factors to generate spread to Libor
- Issuance process
- Post Issuance

Module 17: ISDA Documentation

- ISDA documentation
- Mitigating credit risk through collateral agreements
- Credit Support Annexe

Module 18: Overview of Option Products

- Fundamental option products
 - Caps, floors, collars
- Features of interest rate and FX options
- Pay-off diagrams
- Use of exotic options
 - Vanilla versus binary
- Ways to reduce option cost
- Comparison with quanto / diff swaps

Exercise: Drawing pay-off diagrams based on cash flows

Module 19: Option Pricing

- Overview of option pricing models
- Premium components
- Black-Scholes model
- The Greeks
- Cap pricing
- Volatility and skew

Module 20: Product Matrix

- Incorporating caps / floors into asset and liabilities
 - Capped / collared FRN
 - Floored loan
- What product works in what market environment?
 - Matrix showing ideas for single currency asset and liability side
 - Matrix showing ideas for cross currency asset and liability side
 - Effects of yield curve shape on the relevance of these ideas
 - What drives the price for each product: curve, vol or correlation
- Spotting market opportunities
 - What do you do when FX, commodities, rates etc are out of line?
 - Using Bloomberg resources (FWCV, MCA, USSW, CL1 etc)

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Module 21: Options in Practice

- Uses of digital options
 - Introducing trigger-linked structures
- Recent termsheets will be examined to see why and when clients would use certain trade ideas:
 - Yield curve range accrual / spread options
 - Leveraged curve spread plays
 - Cross asset class products
 - Combining interest rates with FX views
 - Quanto cumulative cap
- Convergence plays using two curves

Exercise: International Energy

Module 22: Credit Derivatives

- Credit derivative structures and their uses
 - Asset & liability management
 - Pricing relationship to bonds and asset swaps
 - Credit default swaps
 - Credit linked notes
 - Nth / First to Default baskets
 - Total rate of return swaps
 - Tranche / Index trades
 - Using Bloomberg CDSW

Module 23: Asset Securitisation

- Securitisation
 - Asset-backed securities
 - Overview
 - Investor perspective
 - Roles in securitisation
 - Master Trust structure
 - CMBS / RMBS
 - CDO structures
 - Types of CDO
 - Synthetic CDOs
 - Variable versus static CDOs
 - Balance sheet versus managed
 - Asset-backed securities: CMBS / RMBS

Module 24: Inflation and commodity Derivatives

- Uses in liability management
- Mechanics of inflation and commodity swaps
 - Worked example: Euro Chemicals
- Combining inflation-linked assets with liabilities
- Sample case studies (Storebaelt)

Exercise: Polska Metals

Course Review

- Course review and close