

HKICPA Tutorial Overviews

Contents

Alternative Investment Fund Managers Directive (AIFM Directive)	6
Asset Classes – Types	7
Asset Classes & Investing	8
Asset Management – An Introduction.....	9
Basel iii Introduction	10
Blockchain Structure & Security	11
Smart Contracts & Blockchain Applications	11
Cryptocurrencies & Initial Coin Offerings (ICOs)	11
Budgeting.....	12
Business of Insurance.....	13
Capital Asset Pricing Model (CAPM).....	14
Cash Management	15
Commodities – Trading.....	16
Convexity Analysis.....	17
Corporate Banking Products – Syndicated Lending.....	18
Corporate Finance – Capital Structure & Liquidity	19
Corporate Finance – Cost of Capital	20
Corporate Finance – Measuring Business Performance.....	21
Corporate Finance – Payout Policy	22
Corporate Finance – Project Appraisal & Capital Budgeting	23
Corporate Finance – Raising Capital	24
Corporate Valuation – An Introduction	25
Corporate Valuation – LBO Analysis	26
Corporate Valuation – Merger Analysis.....	27
Corporate Valuation – Trading Comparables	28
Corporate Valuation – Transaction Comparables	29
Credit Risk – Lessons from the Financial Crisis	30
Data Analytics	31
Bitcoin & Blockchain	31
Enterprise Resource Planning (ERP)	31
Derivatives - An Introduction	32
Derivatives - Markets	33
Derivatives Applications - Scenario	34
Duration Analysis	35
Efficient Markets.....	36
Emerging Markets – An Introduction	37

Emerging Markets – China	38
Exchange-Traded Funds (ETFs) – An Introduction	39
Exotic Options - An Introduction	40
Financial Authorities (China)	41
Financial Authorities (Hong Kong)	42
Financial Markets – An Introduction	43
Forwards & Futures – Hedging (Part I)	44
Forwards & Futures – Hedging (Part II)	45
Fund Administration	46
Fund Types & Structures	47
Fund Valuation	48
General Data Protection Regulation (GDPR)	49
Hedge Funds – An Introduction	50
Hedge Funds – Investing	51
Hedge Funds – Strategies	52
Hong Kong Anti-Money Laundering (AML)	53
Hong Kong Equity Market	55
Interest Rate Options - An Introduction	56
Interest Rate Options - Types	57
Interest Rates & Benchmarks	58
Investment – An Introduction	59
Liquidity Risk - An Introduction	60
Market Risk - An Introduction	61
Mergers & Acquisitions (M&A) – An Introduction	62
Mergers & Acquisitions (M&A) – Analysis	63
Money Market Funds	64
NPV & IRR	65
Operational Risk – Measurement & Reporting	66
Option Valuation – An Introduction	67
Option Valuation – Black-Scholes-Merton	68
Option Valuation – Future Asset Prices & Volatility	69
Option Valuation – Key Concepts	70
Option Valuation – Sensitivities & Outcomes	71
Portfolio Management – Passive vs. Active Strategies	72
Present Value & Future Value	73
Private Equity – An Introduction	74
Private Equity – Investing	75

Private Wealth Management – Alternative Investments	76
Private Wealth Management – An Introduction	78
Private Wealth Management – Banking & Deposit Services	80
Private Wealth Management – Becoming a Trusted Advisor	81
Private Wealth Management – Behavioral Finance	82
Private Wealth Management – Client Acquisition & Relationship Management	83
Private Wealth Management – Client Investment & Wealth Allocation	84
Private Wealth Management – Credit & Lending Services.....	85
Private Wealth Management – Estate Planning.....	87
Private Wealth Management – Financial Planning.....	88
Quantitative Trading - An Introduction	89
Real Estate – Investing	90
Real Estate – Valuation	91
Risk & Return – Efficient & Optimal Portfolios	92
Risk Management – An Introduction	93
Risk Management – Business Strategy & Risk Decision-Making	94
Risk Management – Tools & Techniques	95
Robotic Process Automation (RPA).....	96
Artificial Intelligence (AI)	96
Robo-Advice	96
Securitization – Asset-Backed Securities (ABS).....	97
Statement of Cash Flows (Free)	98
Swaps – An Introduction.....	99
Swaps – Applications	100
Swaps – Asset Swaps	101
Swaps – Basis Swaps	102
Swaps – Book Management	103
Swaps – Bootstrapping Zero Curves	104
Swaps – Cash Flows & Structures	105
Swaps – Clearing	106
Swaps – Credit Support Annex (CSAs) & Collateral	107
Swaps – Currency Swaps.....	108
Swaps – Documentation	109
Swaps – Exotic Structures	110

Swaps – Impact of the Financial Crisis	111
Swaps – Indices & Curves.....	112
Swaps – Key Valuation Concepts	113
Swaps – Overnight Index Swaps (OIS)	114
Swaps – Pricing	115
Swaps – Sensitivities & Risk Management	116
Trade Finance – An Introduction	117
Trade Finance Security.....	119
UK Cybercrime	120
Working Capital Management	121
Zero-Coupon Securities.....	123

Alternative Investment Fund Managers Directive (AIFM Directive)

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the objective, scope, and key definitions associated with the Alternative Investment Fund Managers Directive (AIFMD)
- Recognize the main requirements that the AIFMD places on alternative investment fund managers

Tutorial Overview

The Alternative Investment Fund Managers Directive (AIFMD) was introduced in response to calls for greater regulation of hedge funds, private equity funds, and other alternative investment funds (AIFs). Driven by the events of the financial crisis and the Madoff investment fund scandal, the AIFMD represented the most radical reshaping of fund management regulation in Europe since the first UCITS directive in 1985.

This tutorial describes the main provisions of the AIFMD, including (among others) the requirements in relation to authorization, remuneration, risk management, liquidity management, securitization positions, valuation, delegation, and depositaries.

Prerequisite Knowledge

None

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Overview of the AIFM Directive

- Overview
- Key Definitions
- Scope
- Managing an AIF
- Marketing an AIF: The Passport Regime
- Marketing an AIF: Professional vs. Retail
- Marketing an AIF: Exemptions

Topic 2: Key Requirements

- Authorization
- Capital Requirements
- Operating Conditions
- General Principles
- Remuneration
- Conflicts of Interest
- Risk Management
- Liquidity Management
- Investment in Securitization Positions
- Organizational Requirements
- Valuation
- Valuation: External Valuation
- Valuation: Self-Valuation
- Delegation
- Delegation: Letter-Box Entities
- Depositaries
- Transparency

Asset Classes – Types

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the main features of equities and their subclasses
- List the key types and issuers of fixed income securities
- Recognize the main types of cash and cash equivalents
- Identify the ways investors can gain exposure to the real estate asset class
- List the main types of alternative asset and recognize how some assets can be classified as alternative or mainstream

Tutorial Overview

This tutorial examines the main asset classes that are used to diversify an investment portfolio, including equities, fixed income, money market securities, real estate, and alternative assets.

Prerequisite Knowledge

Asset Classes – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Equities

- What Are Equities?
- Equity Subclasses
- Equity Size & Value
- Private Equity (PE)/Venture Capital (VC)
- Equity Returns & Volatility
- Equity Risk Premium (ERP)
- Forecasting ERP
- Forecasting ERP: Issues

Topic 2: Fixed Income

- What Is Fixed Income?
- Bond Issuers
- Bond Issuers: Sectors
- Bond Issuers: Private Issuance
- Features of Bonds
- Loans
- Bond Risk Premium (BRP)
- Bond Risk Premium (BRP): Calculation
- Credit Risk Premium (CRP)

Topic 3: Cash & Cash Alternatives

- Overview of Cash & Cash Alternatives
- Types of Cash Investment

Topic 4: Real Estate

- Overview of Real Estate
- Real Estate Investment

Topic 5: Alternative Assets

- Overview of Alternative Assets
- Types of Alternative Asset
- Alternative vs Mainstream Assets

Asset Classes & Investing

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the main characteristics of asset classes and the importance of diversifying a portfolio among these different classes
- Recognize the role modern portfolio theory plays in asset class diversification

Tutorial Overview

This tutorial examines the importance of diversifying across asset classes in order to achieve an optimal risk/return trade-off as proposed by modern portfolio theory.

Prerequisite Knowledge

Asset Classes – Primer

Tutorial Level: Introductory

Tutorial Duration: 50 minutes

Tutorial Outline

Topic 1: Asset Class Exposure & Allocation

- Gaining Exposure to Asset Classes
- Asset Classes & Diversification
- Asset Allocation
- Asset Allocation: Weaknesses

Topic 2: Asset Allocation & Modern Portfolio Theory

- Modern Portfolio Theory (MPT)
- MPT: The Efficient Frontier
- Key Inputs
- Expected Return
- Expected Return: Market Risk Factors
- Risk
- Risk: Standard Deviation
- Risk: Sharpe Ratio
- Scenario: Sharpe Ratio
- Correlation
- The Problem of History
- Survivorship Bias

Asset Management – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to

- Identify the key client sectors of the asset management industry
- Interpret the concepts of asset allocation, as well as passive and active management
- List the main types of investment vehicle used in the asset management industry
- Recognize the current state of play in the asset management space and future industry trends

Tutorial Overview

Asset management is the management of portfolios of assets by professional firms serving institutional, high net worth (HNW), and retail clients. This tutorial provides an overview of the structure and activities of a typical asset management firm, including its clients, products, and services. The current state of the global asset management industry is also discussed.

Prerequisite Knowledge

Investment – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview Of Asset Management

- Asset Management Basics
- Asset Management Sectors
 - Institutional Asset Management
 - Wealth Management (Private Client Services)
 - Retail Asset Management
- Asset Allocation
 - Strategic Asset Allocation (SAA)
 - Tactical Asset Allocation (TAA)
- Active & Passive Management

Topic 2: Investment Funds

- Overview of Investment Funds
- Collective Investment Vehicles
- Hedge Funds
- Private Equity Funds

Topic 3: Market Development

- Current State of the Asset Management Industry
- Asset Management by Region
- Asset Management: Future Growth

Basel III – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the main reasons why major changes to the Basel framework were necessary following the global financial crisis
- Identify the key requirements related to capital adequacy (Pillar 1), supervisory review (Pillar 2), and market discipline (Pillar 3)
- Recognize the requirements introduced by Basel III in relation to leverage, liquidity, and globally systemically important banks (G-SIBs)

Tutorial Overview

The financial crisis highlighted that the quantity and quality of bank capital was inadequate. The crisis also underlined the need for regulators to address not just capital adequacy, but also liquidity and leverage. This tutorial provides an overview of the Basel III framework, which is a key element of the regulatory response to the crisis.

Prerequisite Knowledge

Financial Regulation – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Context & Background to Basel III

- Basel Committee on Banking Supervision (BCBS)
- Basel Standards in Practical Terms
- From Basel I to Basel III
- Purpose of Basel III
- Three Pillars Framework
- Finalizing Basel III

Topic 2: Pillar 1 (Minimum Capital Requirements)

- Capital Adequacy
- Components of Regulatory Capital
- Minimum Capital Ratios
- Credit Risk
- Market Risk
- Operational Risk

Topic 3: Pillar 2 (Supervisory Review)

- Purpose of Pillar 2
- Pillar 2: Key Principles

Topic 4: Pillar 3 (Market Discipline)

- Purpose of Pillar 3
- Pillar 3: Guiding Principles

Topic 5: Enhancement of Regulatory Requirements in Basel III

- Enhanced Regulatory Requirements
- Leverage Ratio
- Liquidity Ratios

Blockchain Structure & Security

Description

Overview

This tutorial develops the model first introduced in the tutorial “Bitcoin & Blockchain” by relaxing assumptions made previously to see how the blockchain system really works. It outlines the key challenges involved in building a distributed database, namely transaction authorization and network consensus. The tutorial describes how public key cryptography is one potential solution to the authorization problem and how bitcoin’s proof of work functions as a consensus algorithm.

Prerequisite Knowledge
Bitcoin & Blockchain

Level: Intermediate
Duration: 30 minutes

Smart Contracts & Blockchain Applications

Description

Overview

This tutorial introduces the concept of smart contracts and their use on the blockchain. It also looks at how to build a blockchain product and outlines some of the many potential applications of blockchain, particularly in relation to the financial sector.

Prerequisite Knowledge
Blockchain Structure & Security

Level: Intermediate
Duration: 25 minutes

Cryptocurrencies & Initial Coin Offerings (ICOs)

Description

Overview

Cryptocurrencies have emerged in recent times as a potential new asset class for investors to consider for their portfolios. This tutorial introduces the different types of crypto asset and outlines some of the evolving issues and challenges the asset class is facing. The tutorial also looks at the controversial topic of initial coin offerings (ICOs), the name given to the funding process used by firms in the crypto space and which has attracted a lot of investor attention.

Prerequisite Knowledge
Smart Contracts & Blockchain Applications

Level: Intermediate
Duration: 25 minutes

Budgeting

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define the role of budgeting in financial planning
- Recall the budgeting process
- List and define the different types of budget
- List the potential benefits and disadvantages of budgeting
- Identify different approaches to setting budgets

Tutorial Overview

Budgeting is a central component of effective financial management. A successful budgeting process can help management to achieve long-term financial and operational goals. There are a number of different approaches to budgeting that offer various potential benefits and disadvantages. This tutorial provides a high-level overview of budgeting and the role of it plays in financial management.

Prerequisite Knowledge

None

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Budgeting Overview

- What Is Budgeting?
- The Budgeting Process

Topic 2: Benefits & Disadvantages of Budgeting

- Budgeting: Benefits
- Budgeting: Disadvantages

Topic 3: Types of Budget

- Master Budget
- Cash Budget
- Capital Budget
- Operating Budget

Topic 4: Approaches to Budgeting

- Top-Down Budgeting
- Top-Down Budgeting Example: Master Budget
- Top-Down Budgeting Example: Operational Budget
- Top-Down Budgeting Example: Response
- Top-Down Budgeting Example: Implementation
- Top-Down Budgeting Example: Benefits & Disadvantages
- Bottom-Up Budgeting
- Bottom-Up Budgeting Example: Top Management
- Bottom-Up Budgeting Example: Middle Management
- Bottom-Up Budgeting Example: Process
- Parallel Budgeting
- Parallel Budgeting Example

Business of Insurance

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the principles of insurance contracts and the organizational structures of insurance companies
- Recognize the major business lines of insurance companies and the challenges facing those companies
- Identify the key insurance company performance metrics

Tutorial Overview

Many people by their nature are risk averse. They would prefer to pay a premium for someone to absorb the risk for them. The insurance industry in return for a fee offer protection to individuals and businesses against potentially ruinous risk. This tutorial looks at the different risks that insurance companies cover and the challenges they face in insuring these risks on behalf of individuals and businesses.

Prerequisite Knowledge

No prior knowledge is assumed for this tutorial.

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview of Insurance

- What is Insurance?
- Principles of Insurance
- Forms of Organization
- Distribution
- Agents
- How Agents Can Differ to Brokers
- Underwriting
- Moral Hazard
- Adverse Selection
- Pricing
- Claims
- Reinsurance
- Regulation
- Regulation: US
- Regulation: Europe & Beyond
- Conduct of Business
- Conduct Risk

Topic 2: Major Lines of Business

- Life vs. Nonlife Insurance
- Life Insurance
- Hybrid Life Policies
- Life Insurance Underwriting
- Annuity Contracts
- Health Insurance
- Nonlife Insurance
- Property Insurance
- Liability Insurance

Topic 3: Risk Management & Performance

- Insurance Company Stakeholders
- Reporting & Performance Metrics
- Performance Ratios
- Asset-Liability Management (ALM)

Capital Asset Pricing Model (CAPM)

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Understand the derivation of the market portfolio
- Recognize how the security market line differs to the capital market line
- List the assumptions and some of the criticism leveled against them
- Discuss some of the empirical evidence supporting the CAPM

Tutorial Overview

The principles of the capital asset pricing model (CAPM) are central to portfolio building. Although more sophisticated models of risk and return have been proposed since its arrival in the mid-1960s, few more influential or intuitively appealing financial models have ever been developed. This tutorial describes in detail the theory of CAPM and looks at some of the empirical evidence of the validity of the model.

Prerequisite Knowledge

Risk & Return – Efficient & Optimal Portfolios

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Security Market Line

- Security Market Line
- Systematic Risk
- Beta
- Why Use Beta?
- Alpha
- Positive & Negative Alpha

Topic 2: Assumptions & Criticisms of the CAPM

- Assumptions & Criticisms of CAPM
- Assumptions of the Capital Asset Pricing Model
- Criticisms of the CAPM Assumptions
- Market Portfolio
- Constructing & Managing a Value-Weighted Market Portfolio
- Estimating Beta
- Adjusted Beta

Topic 3: Empirical Evidence for the CAPM

- Empirical Evidence for the CAPM
- Real World Issues with the CAPM & Market Portfolio
- The Size Effect
- Weekend Effect
- Positive Alpha
- Market Portfolio Error
- Nontraditional Wealth
- Empirical Evidence

Cash Management

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define cash management
- Identify the role of cash budgets in the cash management process
- Identify policies and procedures to improve cash management
- List the short-term financing instruments available the help companies manage their cash

Tutorial Overview

Cash management is the process of collecting, disbursing, and investing a company's cash. It focuses on three areas: collecting revenues, paying expenses and debts, and balancing the need to keep cash on hand with the need to invest in projects. Without sufficient liquid cash, a business may find itself unable to pay its bills and may be forced into insolvency. Effective cash management is therefore vital to a company's long-term health. This tutorial provides a high-level overview of cash management and highlights key aspects of the cash management process that must be considered.

Prerequisite Knowledge

Accounting – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Cash Management Overview

- What Is Cash Management?
- Holding Cash
- Cost of Holding Cash

Topic 2: Cash Budgets

- Departmental Budgets
- Cash Budgets
- Scenario: Cash Budgets

Topic 3: Managing Cash Flows

- Improving Cash Inflows
- Sources of Funding
- Investing Cash

Short-Term Investment Options

Commodities – Trading

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key concepts that are relevant to the pricing of commodity futures
- Recognize the main trading and hedging strategies used by commodity market participants

Tutorial Overview

This tutorial explains a range of important futures pricing concepts, such as cost of carry, contango, and backwardation, many of which are particular to the commodities market. A variety of commodity trading and hedging strategies are also discussed in detail.

Prerequisite Knowledge

Commodities – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Key Pricing & Trading Concepts

- Futures Prices & the Cost of Carry
 - Example
- Other Key Commodity Pricing Concepts
 - Contango/Backwardation
 - Basis
 - Convenience Yield

Topic 2: Trading & Hedging

- Overview of Commodity Trading & Hedging Strategies
- Key Trading & Hedging Strategies
 - Speculative Trade
 - Cash-and-Carry Arbitrage
 - Reverse Cash-and-Carry Arbitrage
 - Hedging
 - Long Hedge
 - Short Hedge
 - Impact of Changes in the Basis
 - Strip Hedge & Stack Hedge
 - Commodity Swap
 - Intercommodity Spread
 - Crack Spread
 - Intracommodity Spread
 - Example

Convexity Analysis

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the importance of convexity in approximating the change in bond price that isn't explained by duration
- Identify the different types of convexity
- Calculate the convexity number for a fixed income portfolio

Tutorial Overview

Convexity helps to approximate the change in the price of a bond that is not explained by duration. This tutorial shows how convexity is calculated for a single security or a fixed income portfolio. The different types of portfolio, such as positive and negative duration, approximate portfolio, and effective duration are also discussed in detail.

Prerequisite Knowledge

Duration Analysis

Tutorial Level: Intermediate

Tutorial Duration: 50 minutes

Tutorial Outline

Topic 1: Overview of Convexity

- What Is Convexity?
- Duration & Taylor Series
- Convexity Formula
- Scenario: Convexity of a Bond
- Factors Influencing Convexity

Topic 2: Types of Convexity

- Positive Convexity
- Negative Convexity
- Approximate Convexity
- Effective Convexity
- Spread Convexity

Topic 3: Portfolio Convexity

- Overview of Portfolio Convexity
- Mixing Convexity & Duration: Example
- Bullets & Barbells
- Bullets & Barbells (cont'd)
- Beyond Convexity

Corporate Banking Products – Syndicated Lending

Tutorial Description

On completion of this tutorial, you will be able to:

- Recognize the importance of the syndicated lending market and the role of the various participants in this market
- Identify the stages involved in a typical syndicated loan deal
- Recognize the risks associated with syndicated finance and how these risks can be managed

Tutorial Overview

This tutorial focuses on syndicated lending, which refers to any loan provided jointly by more than one lender. An explanation is provided of syndication structures, the parties involved, the types of syndication, fees, and the reasons why banks and borrowers use syndications. This is followed by coverage of the end-to-end process involved in forming and managing a syndicated loan, while the final section examines some of the key risks involved.

Tutorial Outline

Topic 1: Overview of Syndicated Lending

- Parties to a Syndication
- Participating Banks
- Structure of a Syndicated Loan
- Syndicated Facilities
- Syndicated Facilities: Key Differences
- Types of Syndication
- Deciding on the Type of Syndication
- Fee Structures
- Benefits & Drawbacks of Syndication for Borrowers
- Benefits & Drawbacks of Syndication for Banks
- Market Participants

Topic 2: Syndication Process

- Determining the Borrower's Needs
- Syndication Process: Stages
- Awarding the Mandate
- Scenario: Awarding the Mandate
- Arranging the Syndication
- Loan Documentation
- Loan Drawdown
- Post-Drawdown Loan Management
- Typical Timetable

Topic 3: Risk & Syndications

- Changes in Market or Borrower Conditions
- Managing Changes in Market or Borrower Conditions
- Loss of Borrower Control
- Managing Loss of Borrower Control
- Borrower Difficulties
- Managing Borrower Difficulties
- Workout Situations
- Managing Workout Situations

Corporate Finance – Capital Structure & Liquidity

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the factors that influence a company's capital structure
- Measure a company's financial leverage
- Identify the importance of assessing a company's operating leverage
- Recognize the various liquidity ratios used to analyze a company's liquidity position
- Measure a company's working capital cycle

Tutorial Overview

Some of the world's largest companies generate massive amounts of cash income and hold large cash balances on their balance sheets, yet still have corporate debt. Why is this the case? This tutorial answers this question by looking at the factors that influence capital structure decisions and how such decisions can impact solvency. The tutorial also describes how a company's liquidity position can be analyzed and the importance of working capital management.

Prerequisite Knowledge

Corporate Finance – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview of Capital Structure

- Choosing a Capital Structure: Case Study
- Factors that Influence Capital Structure

Topic 2: Financial Leverage

- Measuring Financial Leverage
- Leverage Ratios
- Debt Payback Metrics
- Leverage: Excel
- Leverage & Risk

Topic 3: Operating Leverage

- Fixed vs. Variable Costs
- Cost Structure Risks
- Operating Leverage

Topic 4: Liquidity

- Measuring Liquidity
- Current Ratio
- Quick Ratio
- Cash Ratio
- Liquidity Ratios: Excel

Topic 5: Working Capital Management

- Working Capital Cycle
- Measuring the Working Capital Cycle
- Working Capital Cycle: Excel

Corporate Finance – Cost of Capital

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the risk/return nature of debt capital and the tax benefits to be derived from the use of debt financing
- Define and use the capital asset pricing model (CAPM) to calculate the cost of equity capital
- Calculate the cost of debt and equity capital to get an overall weighted average cost of capital (WACC)

Tutorial Overview

Most companies are funded by a mixture of debt and equity capital. This means that their overall cost of capital is made up of the cost of equity finance and the cost of debt finance. This tutorial shows how to calculate the cost of each form of financing and how to combine the cost of debt and equity to get overall weighted average cost of capital (WACC) for a company.

Prerequisite Knowledge

Corporate Finance – Capital Structure & Liquidity

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Cost of Debt Capital

- Components of the Cost of Capital
- Cost of Debt
- Yield to Maturity (YTM) Approach
- Tax Effect of Debt
- Alternative Approach to Calculating the Cost of Debt
- Complications in Calculating the Cost of Debt

Topic 2: Cost of Equity Capital

- Approaches to Calculating the Cost of Equity
- Capital Asset Pricing Model (CAPM)
- Scenario: Using CAPM to Calculate the Cost of Equity
- Cost of Equity for a Public Company: Excel
- Bond Yield Plus Risk Premium Approach
- Cost of Equity for a Private Company
- Implied Beta
- Scenario: Calculating the Cost of Equity for a Private Company
- Cost of Equity for a Private Company: Excel

Topic 3: Cost of Preferred Stock

- Cost of Preferred Stock

Topic 4: Weighted Average Cost of Capital (WACC)

- Calculating the WACC
- WACC: Excel
- WACC & Shareholder Value Generation
- WACC & Changes in Capital Structure
- WACC & Risk Profile
- Divisional WACC

Corporate Finance – Measuring Business Performance

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the accounting metrics that companies use to measure financial performance
- Recall the measures used to determine how well a company has managed its assets to generate profits
- Recognize alternative approaches to evaluate business performance, such as free cash to the firm, free cash flow to equity, enterprise value, and economic profit

Tutorial Overview

This tutorial looks at the key accounting metrics use to measure company business performance, such as return on equity, free cash flow to the firm, free cash flow to equity, enterprise value, and economic profit.

Prerequisite Knowledge

Corporate Finance – An introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Performance Metrics

- Margin Analysis
- Interpreting Margin Analysis Results
- Returns Analysis
- Return on Debt & Equity: Excel
- DuPont Analysis
- Shortcomings of Accounting Metrics

Topic 2: Free Cash Flow (FCF)

- What Is FCF?
- Enterprise Value (EV)
- Free Cash Flow to the Firm (FCFF)
- Calculating FCFF
- Adjusting to Add Back Interest: Example
- International Differences in Financial Reporting
- Free Cash Flow to Equity (FCFE)
- FCFF & FCFE: Excel
- Economic Profit
- Economic Profit: Excel

Corporate Finance – Payout Policy

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the reasons why companies have different dividend policies
- Recognize the purpose of a share repurchase (stock buyback) program as well as the benefits and impact of such a program
- Distinguish between stock dividends and stock splits

Tutorial Overview

What would make a company choose to pay out a dividend rather than keep the cash as retained earnings on the balance sheet? This tutorial explains why a company might choose to do this. It also describes other methods through which companies can offer value or benefits to shareholders, such as share buybacks and how these differ to stock dividends and stock splits.

Prerequisite Knowledge

Corporate Finance – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Dividend Policy

- Accounting for Dividend Payments
- Mechanics of Dividend Payments
- Key Dates in Dividend Payments Chronology
- Setting the Dates
- Dividend Announcement & Dates
- Dividend Policy
- Dividend Policy: Approaches
- Evaluating Dividend Policy

Topic 2: Share Repurchase (Stock Buyback)

- Motivations for Share Repurchases
- Accounting for Share Repurchases
- Impact of Share Repurchases
- Methods Used to Repurchase Shares

Topic 3: Stock Dividends & Stock Splits

- What Is a Stock Dividend?
- Accounting for Stock Dividends
- Impact of Stock Dividends
- Stock Dividends: Excel
- Benefits of Stock Dividends
- Stock Splits

Corporate Finance – Project Appraisal & Capital Budgeting

Tutorial Description

Objectives

On completion of this module, you should be able to:

- Recognize the importance of capital budgeting in selecting which investments and expenditures will increase shareholder wealth
- Identify the investment appraisal techniques used by analysts, including net present value, investment rate of return (IRR), the payback method, the discounted payback method, accounting rate of return, and profitability index (PI)

Tutorial Overview

Capital budgeting involves determining the most advantageous investment options for a company, in terms of increasing shareholder wealth.

This tutorial looks at the key techniques used in this analysis, such as NPV, IRR, and the payback method, using the example of a small airline company throughout.

Prerequisite Knowledge

Corporate Finance – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Capital Budgeting

- Capital Budgeting Process
- Capital Budgeting: Detailed Process
- Capital Budgeting: Objectives

Topic 2: Project Appraisal Methods

- Overview of Project Appraisal Methods
- Net Present Value (NPV)
- NPV: Excel
- Internal Rate of Return (IRR)
- IRR: Excel
- Payback Period
- Payback Period: Excel
- Accounting Rate of Return (Average Rate of Return)
- Profitability Index (PI)
- Profitability Index: Excel

Corporate Finance – Raising Capital

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the different types of equity finance that are available to companies throughout their lifecycle
- Identify the different forms of debt finance that companies use

Tutorial Overview

Over a company's entire lifecycle, it will have a need to raise financing in order to grow. At a high level, the choice is whether to issue equity capital or raise debt finance. However, there are many varieties of both forms of finance to consider in practice.

This tutorial describes the different options available to companies to fund their development and illustrates the reasons why they may choose one type of funding over another.

Prerequisite Knowledge

Corporate Finance – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Equity Capital

- Equity Capital
- Seed Stage Financing
- Seed Stage Financing Options
- Early & Later Stage Equity Financing
- Venture Capital
- Private Equity
- Private Equity Returns
- Choosing Between VC & PE
- Mezzanine Financing
- Public Listing
- Public Listing: Benefits
- Public Listing: Drawbacks
- Getting Listed
- IPO Process

Topic 2: Debt Capital

- Early Stage Debt Financing
- Longer-Term Debt Financing
- Debt Security & Seniority
- Corporate Bonds

Corporate Valuation – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the purpose of corporate valuation and calculate the key valuation metrics
- Distinguish between absolute and relative valuation methodologies

Tutorial Overview

This tutorial introduces the common valuation techniques employed by analysts when valuing companies. These techniques fall under the general categories of absolute valuation methods (such as DCF analysis) and relative valuation methods (trading comps and transaction comps).

The tutorial outlines the high-level approach used in each of these methods and demonstrates how they can be combined to build a picture of a company's overall value.

Prerequisite Knowledge

Three-Statement Modeling

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Basics of Corporate Valuation

- The Importance of Valuation
- Main Methods of Valuing Companies
 - Absolute Valuation
 - Discounted Cash Flow (DCF) Analysis
 - Relative Valuation
 - Trading Comparables Analysis
 - Transaction Comparables Analysis
- Factors Affecting Valuations
- Key Valuation Metrics
 - 52-Week Range
 - Market Capitalization (Equity Value)
 - P/E Ratio
 - Enterprise Value (EV)
- Valuation Outputs: Football Field Analysis
 - Valuation Methods Used in Football Field Analysis

Topic 2: Valuation Methods

- Relative Valuation
 - Trading Comps
 - Transaction Comps
 - An Analogy
 - Financial Metrics
 - EV/Sales
 - EV/EBITDA
 - EV/EBIT
 - P/E
- Absolute Valuation
 - Free Cash Flow
 - Calculating Free Cash Flow
 - Free Cash Flow to the Firm (FCFF)
 - Free Cash Flow to Equity (FCFE)
 - Forecasting the Cash Flows
 - Gordon Growth Model

Corporate Valuation – LBO Analysis

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the participants in an LBO deal and the factors that make a company suitable for a leveraged buyout
- Recognize the sources of return for LBO investors and how these returns are measured
- Identify the key components of a typical LBO model

Tutorial Overview

This tutorial describes the main concerns for financial sponsors (private equity firms) when they seek out potential companies in which to invest. It explains the many factors that make a company an attractive investment for LBO purposes and describes in detail how PE firms make money on these leveraged buyout deals. The tutorial also outlines how analysts working on an LBO deal build a model to calculate the risks and returns associated with the transaction.

Prerequisite Knowledge

Corporate Valuation – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Basics of LBO Deals

- Contextual Example
 - Apollo's Acquisition of ADT
- LBO Deal Structure & Participants
 - Lender(s)
 - Financial Buyer
 - Target Company
- What Makes a Company Suitable for an LBO?
 - Steady, Predictable Cash Flows
 - Strong Balance Sheet with Low Levels of Current Debt
 - Low EV/EBITDA Multiple
 - Good Quality Assets That Can Be Used as Loan Collateral
 - Potential for Cost Reductions & Operating Efficiencies
 - Mature Industry/Company
 - Strong Management Team
 - Low Future Capital Expenditure & Working Capital Requirements
 - Good Exit Opportunities
 - Possible Sales of Underperforming Assets
 - Strong Market Position & Competitive Advantages

Topic 2: Profiting from LBO Deals

- Hurdle Rates
- Sources of Return
 - Deleveraging
 - Margin Growth
 - Multiple Expansion
- Measuring Returns
 - Money Multiple (Cash Multiple/Cash-on-Cash Multiple)
 - Internal Rate of Return (IRR)
- Scenario: Measuring Returns
 - Calculating Returns from Deleveraging
 - Calculating Returns from Margin Growth
 - Calculating Returns from Multiple Expansion
 - Calculating the IRR

Topic 3: Anatomy of an LBO Model

- Key Inputs & Drivers
- Operating Model
- Sources & Uses of Funds Statement
- Debt Schedule
- Forecast Scenarios
 - Management Case
 - Base Case
 - Downside Case
 - Specific Cases
- Model Outputs
 - Returns Analysis
 - Credit Metrics

Corporate Valuation – Merger Analysis

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the purpose of an upfront analysis before building a merger model
- Recognize the different sources of financing for a merger
- Identify the steps involved in consolidating the balance sheet and income statement whenever one company acquires a controlling stake in another
- Recognize the key outputs of a merger model

Tutorial Overview

This tutorial describes the basic mechanics of a merger analysis. It examines how analysts prepare the calculations to assess which deals are earnings per share (EPS) accretive and how the deal financing is determined. It also outlines the key steps involved in post-merger balance sheet and income statement consolidation, before concluding with a look at the output analysis that is prepared for the acquiring company in a merger transaction.

Prerequisite Knowledge

Corporate Valuation – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Upfront Analysis

Purpose of an Upfront Analysis

- Upfront Analysis: Example
 - Offer P/E
 - Earnings Yield
 - EPS Accretion
 - Cost of Debt
 - Deal Financing
 - Conclusion

Topic 2: Financing a Merger

- Sources & Uses of Funds Statement
- Uses of Funds
- Sources of Funds (Financing a Deal)
 - Cash Purchase
 - Debt Issuance
 - Debt/EBITDA Multiple
 - Equity Issuance
 - Exchange Ratio

Topic 3: Consolidation Accounting

- Balance Sheet Consolidation
- Income Statement Consolidation

Topic 4: Key Merger Model Outputs

- EPS Accretion/Dilution
- Credit Metrics
- Ownership & Exchange Ratios
- Contribution Analysis
- Return on Investment

Corporate Valuation – Trading Comparables

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key steps required when conducting a trading comparables analysis
- Outline the mechanics of a trading comparables analysis, including determining the comparables universe, inputting the financials from the comparable companies into a trading comps model, and deriving a valuation range

Tutorial Overview

Comparable company analysis, or trading comparables, is one of two methods that can be used to determine the relative value of a company (the other is transaction comparables, which is based on precedent transactions). This tutorial looks at each stage of comparable company analysis and describes how it is carried out from a practical point of view. It also examines some of the technical difficulties and considerations that analysts have to make when undertaking a trading comps analysis.

Prerequisite Knowledge

Corporate Valuation – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Basics of Trading Comparables

- Scenario: Valuing a Coffee Business
- Steps Involved in Trading Comps
 - Identify the Comparables Universe
 - Input the Financials
 - Derive a Valuation Range

Topic 2: Identifying the Comparables Universe

- Influencing Factors
- How Many Companies?
- Finding the Comparable Companies

Topic 3: Inputting the Financials

- Spreading the Comps
- Equity Value & Enterprise Value
 - Calculating Equity Value
 - Calculating Enterprise Value
 - Valuing the Components of Enterprise Value
- Calculating Profitability Metrics
 - Sourcing the Data
 - Using Data Providers
 - Hand Spreading the Comps
 - Normalizing the Income Statement
 - Tax Adjustments
 - Adjusting the Financials for Comparability
 - Deciding Which Periods to Use

Topic 4: Deriving a Valuation Range

- Analyzing Multiples
- Why Do Some Companies Trade at a Premium or Discount?
 - Financial Reasons
 - Business Reasons
 - Market Reasons

Corporate Valuation – Transaction Comparables

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key steps required when performing a transaction comparables analysis
- Recognize the key questions that analysts must answer when determining precedent transactions
- Calculate and analyze deal premiums
- Derive a valuation range

Tutorial Overview

Acquisition comparables analysis, or transaction comparables, is one of two methods that can be used to determine the relative value of a company (the other is trading comparables, which uses the position and performance of other companies to give an indication of the value of a target company). This tutorial describes how analysts decide on the precedent transactions to include in a transaction comps analysis, how they calculate the offer premium and deal price, and which metrics they analyze as part of the valuation.

Prerequisite Knowledge

Corporate Valuation – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Basics of Transaction Comparables

- Contextual Example
 - SoftBank's Acquisition of ARM Holdings
- Steps Involved in a Transaction Comparables Analysis
 - Determine a Deal List
 - Calculate Deal Premiums
 - Calculate & Analyze Deal Values
 - Derive a Valuation Range

Topic 2: Determining a Deal List

- Determining the Precedent Transactions
- Key Questions
 - What Is the Reason for the Deal?
 - Is the Buyer a Financial Buyer or a Strategic Buyer?
 - How Long Ago Were the Comparable Deals Done?
 - How Many Comparable Deals Should Be Included?
 - Are the Precedent Deals Friendly or Hostile Transactions?
- Sources of Information for the Deal

Topic 3: Calculating & Analyzing Deal Premiums

- Why Do Acquirers Pay Premiums on Deals?
 - Synergies
 - Control Premium
- Calculating the Deal Premium
- Which Share Price?

Topic 4: Deriving a Valuation Range

- What is the Deal Value?
- Calculating the Deal Value
 - Offer Price Per Share
 - Number of Shares Outstanding
 - Option Proceeds
 - Equity Offer Value
 - Transaction (Deal) Value
- Implying a Valuation
 - Scenario

Credit Risk – Lessons from the Financial Crisis

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Outline how both banks and regulators failed to understand or quantify the risks that were building up prior to the financial crisis
- Describe how banks' business strategies and risk appetite have been refocused due to the events of the crisis and the introduction of tighter capital requirements under Basel III

Tutorial Overview

The global financial crisis has become a defining event in history and will cast a long shadow over financial markets for many years to come. The crisis highlighted many issues, not least of which was some extraordinary mismanagement of credit risk.

This tutorial describes the key mistakes made by banks and some other financial institutions, including too many concentration risks, a lack of understanding of products/risks, inadequate capital, funding and liquidity deficiencies, and issues with external credit ratings. The tutorial also looks at the massive impact the crisis has had on banks' business strategies, operating models, and credit risk appetite, in addition to the regulatory changes that have affected how banks manage credit risk.

Prerequisite Knowledge

Credit Risk – Measurement & Capital Requirements

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Lessons from the Financial Crisis

- Before the Crisis
- Problems Emerge & Grow
- Key Issues
 - Concentration Risk
 - Examples
 - Commonalities
 - Lack of Understanding of Risks
 - Warehoused Assets
 - Implied Support for Securitizations
 - Derivatives Settlement Risks
 - Credit Migration
 - Asset Price Movements
 - Insufficient Capital
 - Funding & Liquidity
 - Credit Ratings

Topic 2: impact of the Financial Crisis on Credit Risk Management

- Business Strategy
- Credit Risk Appetite
- Regulation
 - Regulatory Engagement
- Capital Adequacy Ratio (CAR)
 - Managing CAR
- Transparency & Disclosure

Data Analytics

Description

Overview

Data analytics refers to the qualitative and quantitative techniques used to generate insights from existing data so that productivity can be enhanced. This tutorial provides a high-level overview of the use of data analytics and big data, with particular focus on machine learning techniques that have reinvigorated the field of data science.

Prerequisite Knowledge

None

Level: Introductory

Duration: 20 minutes

Bitcoin & Blockchain

Description

Overview

This tutorial provides an overview of bitcoin – the precursor of cryptocurrencies – and, using a board game analogy, explores the fundamentals of blockchain and the difference between a centralized and a decentralized system. While this simplified model does not mirror the inner workings of a blockchain exactly, examining the assumptions used in this process aids understanding of the inherent challenges of decentralized systems and helps to develop an appreciation for the fundamental building blocks of blockchain.

Prerequisite Knowledge

None

Level: Introductory

Duration: 20 minutes

Enterprise Resource Planning (ERP)

Description

Overview

ERP is business process management software that enables a company to use a system of integrated applications to automate many functions and manage its business. This tutorial introduces the concept of an ERP platform, including its benefits and implementation challenges. The tutorial also outlines how ERP banking transformation programs are a key focus area for many corporates, with some specific examples provided in relation to cash management processes.

Prerequisite Knowledge

None

Level: Introductory

Duration: 25 minutes

Derivatives – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- List the broad categories of derivatives
- Recognize how derivatives pricing is based on the idea that relative prices should be "arbitrage-free"
Recall why there is considerable apprehension regarding the risks specific to derivatives

Tutorial Overview

This tutorial focuses on the basic types of derivatives – forward-type instruments (forwards, futures, and swaps) and options. The key differences between these instruments are described, along with the basics of their pricing. The tutorial also discusses some of the risks that arise from the use of derivatives in general, particularly in light of global financial crisis and other events in recent times.

Prerequisite Knowledge

Financial Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 50 minutes

Tutorial Outline

Topic 1: Derivatives Basics

- Basic Categories of Derivatives
 - Forward Transactions
 - Cash versus Physical Settlement
 - From Forward Contracts to Swaps
 - Options

Derivatives Pricing

- Forward Pricing
 - Arbitrage-Free Pricing
 - Future Expectations
- Option Pricing
 - Modern Option Pricing Theory
- Value Before Maturity

Topic 2: Derivatives Risks

- Overview of Derivatives Risks
- Counterparty Credit Risk (CCR)
 - Managing CCR
- Complexity
 - Pricing & Model Risk
 - Operational Risk
 - Transparency
- Market Benchmarks

Derivatives – Markets

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- List the differences between OTC derivatives and exchange-traded derivatives markets
- Recognize the role of the key market players in derivatives markets
- Identify the motivations behind using derivatives

Tutorial Overview

Derivatives may seem like complex, modern, instruments, but they have been around since ancient times. However, in recent decades, derivatives markets have expanded dramatically in terms of both scope and scale.

This tutorial describes derivatives markets today, both OTC and exchange-traded – and how the lines between these have become blurred by regulations adopted following the global financial crisis. The tutorial also outlines the role of end-users and intermediaries in derivatives markets, as well as the many applications of derivatives for the various market players.

Prerequisite Knowledge

Derivatives – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 50 minutes

Tutorial Outline

Topic 1: Derivatives Market

- A Brief History of Derivatives
- OTC vs. Exchange-Traded Derivatives
- Underlying Assets
 - Financial
 - Interest Rates
 - Exchange Rates
 - Equities
 - Credit
 - Other

Topic 2: Market Players

- End-Users (Buy-Side)
- Intermediaries (Sell-Side)
- Regulators
 - Regulatory Developments

Topic 3: Derivatives Uses

- Why Use Derivatives?
- Hedging
 - Hedging Using Forwards
 - Hedging Using Options
- Speculation
- Investment
 - Unbundling Exposures
 - Replicating Exposures
 - Profiting from Short-Term Views
- Arbitrage

Derivatives Applications – Scenario

Description

Overview

This scenario explores the practical application of financial derivatives by a US hedge fund trader. It incorporates three separate strategies that represent just a small selection of the many choices available to hedge funds when using derivatives to manage exposures and positions. While the scenario is based on the activities of a hedge fund, many other entities also use derivatives to manage the types of exposure described (as well as other risk exposures).

Prerequisite Knowledge

A solid knowledge of derivatives is required, particularly interest rate derivatives, equity swaps, and stock options. A basic understanding of hedge funds would also be useful.

Level: Intermediate

Duration: 45 minutes

Duration Analysis

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recall how bond prices are sensitive to movements in yield
- Calculate the Macaulay duration and modified duration on a bond
- Identify adjustments to duration numbers to account for convexity
- Recognize how duration can be used to hedge and immunize a single bond or bond portfolio
- Identify rate sensitivity numbers for other types of fixed income instrument such as floating rate notes, swaps, and inflation-linked securities.

Tutorial Overview

Duration is a measure of the sensitivity of bond prices to changes in yield. This tutorial looks at the key types of duration figure, including Macaulay duration, modified duration, money duration, and spread duration. It also examines the use of duration in hedging and immunizing fixed income portfolios as well as looking at rate sensitivity measures for other types of fixed rate instrument such as floating rate notes, swaps, inflation-linked bonds.

Prerequisite Knowledge

Fixed Income Analysis – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Bond Interest Rate Sensitivity

- Bond Interest Rate Sensitivity
- The Sensitivity of Bond Prices

Topic 2: Macaulay Duration

- Macaulay Duration
- What Is Macaulay Duration?
- Macaulay Duration: Balancing Point
- Calculating Macaulay Duration Between Coupon Dates
- Macaulay Duration: Formula
- Factors Affecting Macaulay Duration

Topic 3: Modified Duration

- Modified Duration
- What Is Modified Duration?
- Money Duration (Risk)
- Convexity & Approximate Duration
- Duration of a Portfolio
- Curve Duration
- Curve Duration: Options
- Key Rate Duration (KRD)

Topic 4: Duration Hedging & Immunization

- Duration Hedging & Immunization
- Duration-Based Hedging
- Duration-Based Hedging: Issues
- Immunization
- Immunization of a Bond Portfolio

Topic 5: Other Sensitivities

- Other Sensitivities
- Floating Rate Notes (FRNs)
- FRN: Rate Sensitivity
- Interest Rate Swap (IRS)
- Spread Duration
- Inflation-Linked Bonds (ILBs)

Efficient Markets

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the concept of efficient markets
- Discuss the Random Walk Theory
- Identify the different levels of the EMH
- List the various implications of the EMH
- List the main research findings that either support or contradict the different levels of the EMH
- Recognize the concept of adaptive markets

Tutorial Overview

One of the key factors when building a theoretical framework required for making rational financial decisions and policies is an understanding of the concept of market efficiency. This concept is one of the most widely studied and contentious areas in the financial world today. This tutorial explains in detail the characteristics of an efficient market, describing the random walk theory and examining the different forms of the efficient market hypothesis and their various implications for analysts, management, and investors. It also discusses the concept of adaptive market hypothesis and why it is becoming a popular alternative to EMH.

Prerequisite Knowledge

APT & Factor Models

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Efficient Market Hypothesis (EMH)

- Efficient Market Hypothesis (EMH)
- What is an Efficient Market?
- Effect of New Information on Stock Prices
- High Frequency Trading
- Mispriced Securities
- Random Walk Theory
- Random Walk Theory: An Example
- Mean-Reverting
- Cyclical Patterns
- Levels of Market Efficiency
- Implications of Efficient Market Hypothesis

Topic 2: Market Efficiency: The Evidence

- Efficient Market Efficiency: The Evidence
- Evidence of Market Efficiency
- Weak Form
- Semi-Strong Form
- Strong Form
- Evidence of Market Inefficiency

Topic 3: Adaptive Markets Hypothesis

- Coming Next
- Critique of EMH
- Adaptive Markets Hypothesis
- Behavioral Bias
- Efficient Markets under AMH
- Implications of AMH

Emerging Markets – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define an 'emerging market' and describe how these markets have developed over the years
- Outline the key emerging markets, notably the 'BRIC' economies
- Describe the main considerations and risks associated with investing in emerging markets

Tutorial Overview

Over the past generation or so, emerging markets, most notably the BRIC economies of Brazil, Russia, India, and China, have grown rapidly – growth that is projected to continue in the years to come as these markets strengthen their global positions and drive the world economy. China is already the world's largest exporter and in 2010 overtook Japan as the world's second largest economy after the United States. Although astute investors can earn impressive returns on emerging market investments, this is not an area for the faint-hearted. Significant market volatility, frequent political crises, currency risk, and lack of regulatory oversight, are just some of the risks faced by investors in these markets.

This tutorial outlines the development of emerging markets and how they differ from developed economies. The key emerging markets and the risks of investing in these markets are also discussed.

Prerequisite Knowledge

Financial Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 75 mins

Tutorial Outline

Topic 1: Overview of Emerging Markets

- Definition of an Emerging Market
- Classification of Emerging Markets
 - Advanced
 - Secondary/ Frontier
- History of Emerging Markets
 - Phase 1: Manufactured Exports (1980s- Late 1990s)
 - Phase 2: Commodities Boom (2000s)
 - Phase 3: Domestic Demand & Demographics
- Key Growth Factors
 - Demographics
 - Infrastructure
 - Financial Services
- Decoupling

Topic 2: Key Emerging Markets

- BRICs
 - Brazil
 - Russia
 - India
 - China
- Other Acronyms & Markets (Selected Examples)
 - Indonesia
 - Mexico
 - Turkey
 - South Africa
 - Malaysia

Topic 3: Investing in Emerging Markets

- Benefits
 - Higher Returns
 - Diversification
- Asset Classes
 - - Local EM Stocks
 - Depository Receipts
 - Domestic Stocks with EM Operations
 - Funds
 - Fixed Income
 - Real Estate
 - Alternative Assets
 - Derivatives
 - Currencies
 - Hedge Funds
 - Private Equity
- Risks
 - Political Risk
 - Credit Risk
 - Market Risk
 - Currency Risk
 - Concentration Risk
 - Liquidity Risk
 - Regulatory Risk

Emerging Markets – China

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Describe China's evolution from a centrally-planned economy to the world's second largest market economy
- Outline the structure of the Chinese banking system and the importance of the major reforms it has seen in recent times
- Explain how Chinese financial markets are evolving, but remain underdeveloped relative to those in developed economies

Tutorial Overview

Once remote from the international community, a series of reforms since the late 1970s has seen China evolve into an economic powerhouse. In 2010, the country surpassed Japan as the world's second largest economy after the United States. Such has been its phenomenal growth that China is predicted to overtake the US at some point in the 2020s. However, despite the lofty predictions, China faces some significant economic and other challenges. This tutorial looks in detail at China and its meteoric rise to economic superpower, in addition to some of the challenges the country faces. It also describes the banking and financial sector, which has had to evolve in line with China's explosive economic growth.

Prerequisite Knowledge

Emerging Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 75 mins

Tutorial Outline

Topic 1: Country Overview

- A Short History of China
- Relationship with Hong Kong
- Economy
 - Economic Growth
 - International Trade
 - Inflation
 - Employment
 - Industry
 - Transport
 - Energy

○ Monetary Policy

- Interest Rate Setting
- Reserve Requirements
- Open Market Operations
- Window Guidance

• Exchange Rate Management

Topic 3: Financial Markets

• Overview

- Underdeveloped Capital Markets
- Difficulties in Obtaining Financing

• Stock Markets

- Main Markets (Shanghai & Shenzhen)
- Shortcomings & Inefficiencies

• Bond Markets

- Historical Backgrounds
 - Underdeveloped Corporate Bond Market
 - Market Reforms

• Interbank (OTC) vs. Exchange Market

- Commodities
- Derivatives
- Real Estate

Topic 2: Banking in China

- Historical Background
 - Monobank Background
 - Separation of Central & Commercial Banking Functions
 - Other Reforms
- The 'Big Four' Today
 - Industrial & Commercial Bank of China (ICBC)
 - China Construction Bank (CCB)
 - Bank of China (BOC)
 - Agricultural Bank of China (ABC)
- Other Financial Institutions
- Recent Developments
- Bank Regulation & Supervision

Exchange-Traded Funds (ETFs) – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the basics of ETFs, including how they are created, traded, and redeemed
- Identify the key features of ETFs that makes them such an attractive investment vehicle for many investors
- Recall the evolution of the ETF market and its development worldwide

Tutorial Overview

This tutorial covers the fundamentals of ETFs, beginning with the unusual way that these securities are constructed (and redeemed) and the key players involved in that process. The tutorial also covers topics such as ETF pricing, trading, investment strategies, and market development. The attractions of ETFs for investors are also described, as well as how they compare with other investment vehicles such as mutual funds.

Prerequisite Knowledge

Investment – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview of ETFs

- What Is an ETF?
- ETF Creation
 - In-Kind vs. Cash Create Transactions
- Net Asset Value (NAV)
- ETF Redemption
 - Sale of ETF Shares in the Secondary Market
 - Redemption of ETF Creation Units
- ETF Trading
 - Intraday Value
- ETF Applications
- ETFs vs. Mutual Funds
 - Management
 - Pricing & Trading
 - Fees
 - Taxation
- Market Development
 - North America
 - Europe
 - Asia-Pacific

Topic 2: Features of ETFs

- Diversification
- Liquidity
- Asset Classes
- Costs
 - Operating Expenses (Total Expense Ratio)
 - Bid/Ask Spreads
 - Commissions
- Taxation
- Investment Strategies
 - Asset Allocation
 - Core & Satellite Strategy
 - Hedging
 - Cash Equitization

Exotic Options – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the development of the market for exotic options and the main benefits of these instruments for investors
- Identify the different types of exotic option, such as Asian options, barrier options, binary options, and lookback options
- Recall how to analyze the sensitivities of key exotic options, such as Asian, barrier, and, binary calls

Tutorial Overview

Exotic options are instruments that vary one or more elements of the basic structure of plain vanilla options. This tutorial outlines the development of the market for exotic options and describes some of the most popular exotic option structures - such as Asian options, barrier options, binary options, and lookback options – and their associated sensitivities.

Prerequisite Knowledge

Options – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview

- Development of the Exotic Option Market
- Benefits of Exotic Options

Topic 2: Types of Exotic Option

- Exotic Option Formats
- Exotic Option Structures
- Key Types of Exotic Option
- Asian Options
- Asian Options: Averaging
- Barrier Options
- Barrier Options: Valuation
- Barrier Options: Example
- Barrier Options: Variants
- Lookback Options
- Lookback Options: Scenario
- Other Exotics

Topic 3: Option Sensitivities

- Sensitivities of Exotic Options
- Asian Options: Sensitivities
- Barrier Options: Sensitivities
- Binary Options: Sensitivities

Financial Authorities (China)

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the historical development of the banking sector in China
- Recognize the role of the People's Bank of China (PBC), particularly in relation to monetary policy
- Recognize the significance of China's other main financial regulators, the China Banking Regulatory Commission (CBRC) and the China Securities Regulatory Commission (CSRC)

Tutorial Overview

This tutorial examines China's economic and political history, the recent liberalization of its monetary policy, and the roles played by its regulators in upholding the government's economic strategies

Prerequisite Knowledge

Financial Regulation – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Overview of the Chinese Banking Sector

- Background
- Top-Tier Commercial Banks in China
- Second-Tier Commercial Banks in China
- Financial Authorities

Topic 2: People's Bank of China (PBC)

- History of the PBC
- Functions of the PBC
- Monetary Policy
- Interest Rates
- Interest Rate Changes
- Reserve Requirements
- Open Market Operations
- Exchange Rate Management
- Non-Market Operations

Topic 3: Other Regulators

- Other Regulators
- China Banking Regulatory Commission (CBRC)
- China Securities Regulatory Commission (CSRC)

Financial Authorities (Hong Kong)

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the historical factors which contributed to Hong Kong's significance as a financial center
- Identify the idiosyncrasies of financial regulation in Hong Kong
- Identify the roles carried out by each of the regulatory bodies in Hong Kong

Tutorial Overview

This tutorial examines Hong Kong's position as a global financial power, and explains the duties assumed by each of the regulatory bodies, as well as the tools they use to pursue their objectives

Prerequisite Knowledge

Financial Regulation – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Background

- Historical Background
- Regulatory Authorities

Topic 2: Hong Kong Monetary Authority (HKMA)

- Overview of the Hong Kong Monetary Authority (HKMA)
- The Linked Exchange Rate System
- The Linked Exchange Rate System: Suitability & Requirements
- Limitations of the Linked Exchange Rate System
- The Monetary Base
- Effects of the Global Financial Crisis on the Monetary Base
- Exchange Fund
- Banking Supervision
- Advisory Committees

Topic 3: Other Financial Regulators

- Securities & Futures Commission (SFC)
- Regulatory Objectives of the SFC
- Regulatory Scope of the SFC
- Hong Kong Exchange (HKEx)

Financial Markets – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Distinguish between the broad categories of financial markets – investment/funding markets, transactional markets, and risk management markets – and their purpose
- Identify the key participants in these financial markets and the roles they play
- Recognize the difference between exchange-traded and off-exchange/OTC markets, and how the distinction between the two is becoming increasingly blurred

Tutorial Overview

This tutorial introduces the major financial markets. What are their functions? Who needs them? What products do they offer? Where are they? How do they operate? How are they changing?

Broadly speaking, the tutorial outlines the financial markets' defining characteristics, focusing on the way in which money shifts between participants. More specifically, it describes the types of financial market, the products offered, the people/participants involved, and the different types of marketplace.

Prerequisite Knowledge

No prior knowledge is assumed for this tutorial.

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Overview of Financial Markets

- What is a Financial Market?
- Size of Global Financial Markets
- Impact of the Global Financial Crisis
- Types of Financial Market
 - Funding/Investment Markets
 - Long-Term vs. Short-Term Funding
 - Debt vs. Equity Funding
 - Equity
 - Debt
 - Short-Term Debt
 - Primary & Secondary Markets
 - Capital Structure
 - Funding Breakdown
 - Transactional Finance
 - Foreign Exchange
 - Trade Finance
 - Commodities
 - Risk Management
 - Insurance
 - Derivatives

Topic 2: Market Participants

- Key Market Players
 - Banks
 - Shadow Banking
 - Institutional Investors
 - Corporates
 - Individuals
 - Governments/Sovereigns
 - Regulators

Marketplaces

- The Importance of Liquidity
- Exchange Trading
- OTC Trading
- Exchange Trading vs OTC Trading: Blurred Lines
- Public vs. Private Markets
- Financial Centers

Forwards & Futures – Hedging (Part I)

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Explain how futures contracts and forward trades are used to hedge an existing or anticipated asset position
- Compare and contrast hedging using futures with hedging using forwards
- Outline some of the different hedging approaches used in different markets

Tutorial Overview

The elimination of future price risk lies at the heart of derivatives, whether in the form of forward trades or futures contracts. This tutorial explains the basic principle behind hedging using 'prices in the future' and shows how this principle is applied across many markets. It also outlines the differences between, and relative attractions of, using either futures contracts or OTC forwards when hedging a position. The additional difficulties of hedging interest rate risk are covered in a subsequent tutorial.

Prerequisite Knowledge

Future Markets

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Simple Hedges

- Symmetrical Risks
- Hedging Using Futures

Topic 2: Futures or Forwards

- All Things are not Equal
- Changes in the Basis
- Range of Contracts for Hedging
- Futures vs. Forwards

Topic 3: Hedging Other Major Assets

- Equity Portfolio Hedging
- Foreign Exchange Hedging

Forwards & Futures – Hedging (Part II)

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the different long-term interest rate risks faced by market participants
- Explain how long-term interest rate risks can be managed, particularly through hedging using bond and swap futures
- Identify the different short-term interest rate related risks faced by market participants, and explain how these risks can be managed, either through OTC FRA transactions or through the use of money market futures contracts

Tutorial Overview

The use of futures hedging for both short and long-term interest rate risks is extremely widespread. Of the five most liquid exchange-traded contracts in the world, the most actively traded futures contract was the Eurodollar contract quoted on the CME.

This tutorial focuses on the hedging of interest rate risk, both for shorter-dated and longer-dated instruments. It examines the construction of hedges using bond and money market futures, and outlines some of the particular issues unique to these markets.

Prerequisite Knowledge

Forwards & Futures – Hedging (Part I)

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

Tutorial Outline

Topic 1: Bond Futures

- A Typical Bond Futures Contract
- Conversion Factors (CFs)
- Cheapest-to-Deliver Bond

Topic 2: Hedging Using Futures

- Hedging with Bond Futures
- Regression Hedging
- Hedging a Swap Position
- Bond/Swap Basis Risk
- Swap Futures

Topic 3: Short-Term Hedging

- Forward Rate Agreements (FRAs)
- Money Market Futures
- Strips & Stacks
- Convexity Adjustment

Fund Administration

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the critical importance of fund accounting and the calculation of a fund's net asset value (NAV)
- Identify key fund administration activities such as middle office risk reporting and profit and loss determination, fund formation, taxation, income processing, company secretarial and governance, and proxy voting
- Identify compliance-related fund administration activities, such as customer due diligence, and ensuring compliance with FATCA, AML, and CFT requirements

Tutorial Overview

Fund administration operations are often outsourced to a specialist, who may or may not be the fund's investment manager or custodian. This tutorial looks at the crucial fund administration activity of fund accounting and valuation, as well as other key fund administration services.

Prerequisite Knowledge

Fund Types & Structures

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Fund Accounting & Valuation

- Overview of Fund Accounting
- Mechanics of Fund Accounting
- Accounting Rules
- Corporate Actions
- Trial Balance
- Valuation & Marking to Market
- NAV Calculation
- Scenario: NAV Calculation

Topic 2: Other Fund Administration Services

- Middle Office Services
- Risk Reporting
- Risk Reporting Tools
- Corporate Secretarial & Governance
- Fund Formation
- Income Processing
- Tax Services
- Proxy Voting
- Proxy Voting: Registration
- Compliance with Common Reporting Standard (CRS)
- Investor Services: KYC/AML
- Outsourcing AML/CFT Activities
- Outsourcing AML/CFT Activities: CDD Documentation
- AML/CFT Due Diligence
- FATCA Compliance

Fund Types & Structures

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the features and characteristics of the various funds available to investors
- Recognize the importance of the separation of “funds” and “fund management” when establishing most investment funds

Tutorial Overview

Investment funds control a vast amount of global wealth, but there are many different fund types and structures that investors can choose from. This tutorial examines the main differences between these funds and provides an overview of the funds available in various jurisdictions around the world.

Prerequisite Knowledge

Asset Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Main Fund Types & Structures

- What Is an Investment Fund?
- Types of Fund
- Public vs. Private Funds
- Regional Fund Structures: US
- Regional Fund Structures: Europe
- Regional Fund Structures: UK
- Regional Fund Structures: Asia-Pacific
- Globally-Recognized Fund Structures
- Funds of Funds (FOFs)
- Single-Class vs. Multi-Class Funds
- Fund Organizational Structure: Separation of Funds & Fund Management

Fund Valuation

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the role of accounting in the calculation of fund assets, liabilities, capital, income, and expenses
- Recognize the importance of accurate net asset value (NAV) calculations in enabling fund investors to make correct trading decisions
- Identify the main regulatory issues concerning money market funds and NAV calculations

Tutorial Overview

This tutorial looks at how funds account for the different transactions in which they engage, especially buying and selling securities, and how the critical measure of NAV per share is calculated for funds .

Prerequisite Knowledge

Fund Administration

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Fund Accounting & the NAV Cycle

- Fund Accounting
- General Ledger Categories
- The Accounting Equation
- Double-Entry Accounting
- NAV Per Share
- NAV Cycle
- Capital Activity
- Expenses
- Variable Expenses
- Fund Expenses: Scenario
- Income: Interest
- Income: Cash Dividends
- Dividends: Effect on the Share Price

Topic 2: NAV Calculation

- Marking to the Market
- Fair Value
- NAV Calculation: Example

Topic 3: Money Market Funds

- Constant NAV Funds
- Distributing vs Accumulating CNAVs
- Variable NAV
- Accounting Issues for MMFs
- US MMF Reform
- European Money Market Funds Regulation (MMFR)

General Data Protection Regulation (GDPR)

Tutorial Description:

On completion of this tutorial, you will be able to:

- Define the material and territorial scope of the General Data Protection Regulation (GDPR) as well as fundamental GDPR concepts such as “personal data” and “processing”
- Recognize the key responsibilities of data controllers in relation to the processing of personal data as described by the GDPR's data protection principles
- Identify the rights of data subjects under the GDPR
- Describe other key concepts associated with the GDPR, such as consent, data protection by design and by default, data transfers, and data protection impact assessments

Tutorial Overview

Data protection legislation is concerned with upholding the privacy rights of individuals in relation to their personal data. This tutorial provides a high-level overview of the EU's GDPR and its significance in terms of protecting an individual's privacy in today's world.

Prerequisite Knowledge

None

Tutorial Level: Introductory

Tutorial Duration: 50 minutes

Tutorial Outline:

Topic 1: Scope & Key Definitions

- Scope & Key Definitions
- Scope of the GDPR
- Scenario: In or Out of Scope?
- Personal Data
- Processing of Personal Data
- Scenario: Personal Data

Topic 2: Data Protection Principles

- Data Protection Principles
- What Are the GDPR's Data Protection Principles?
- Scenario: Data Protection Principles

Topic 3: Rights of Data Subjects

- Rights of Data Subjects
- What Are Data Subjects' Rights?

Topic 4: Other Key GDPR Areas & Concepts

- Other Key GDPR Areas & Concepts
- Key GDPR Concepts
- Scenario: Consent
- Notification of Breaches
- Remedies, Liability, & Penalties

Hedge Funds – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define what a hedge fund is and describe the main characteristics of a hedge fund
- Identify the key players in the hedge fund industry

Tutorial Overview

This tutorial looks at the key characteristics of hedge funds and provides an outline of the development of the hedge fund industry. It then discusses the key players in the hedge fund industry and the roles they perform.

Prerequisite Knowledge

Alternative Assets – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Hedge Fund Characteristics

- What Is a Hedge Fund?
- Key Developments
- Strategies
- Success & Growth
- Hedge Fund Highs & Lows
- Characteristics of Hedge Funds
 - Returns
 - Legal Structure
 - Fee Structure
 - Derivatives & Leverage
- Regulatory Environment

Topic 2: Hedge Fund Players

- Hedge Fund Investors
- Investor Considerations
- Hedge Fund Management
- Hedge Funds as Clients
- Prime Brokers
- Other Third Parties

Hedge Funds – Investing

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Compare the performance of hedge funds to other asset classes
- Identify the key measures of hedge fund risk
- Recognize the issues involved in evaluating hedge funds

Tutorial Overview

In this tutorial we describe the benefits and shortfalls of various measurements of risk and return and highlight the way in which an investor can examine alternative opportunities. We look at how it is possible to separate measurements of return which are “skill-based” from those due to overall market movements and how a potential investor can distinguish between “good” and “bad” hedge fund investments.

Prerequisite Knowledge

Hedge Funds – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Hedge Fund Performance

- Hedge Funds vs. Other Asset Classes
- Downside Protection
- Negative Compounding
- Efficient Markets
- Searching for Skill in Investing
- A Zero Sum Game?
- Pure Alpha
- Dead Weight

Topic 2: Hedge Fund Risk

- What is Risk?
- Risk Ratios
- Sharpe Ratio
- Other Risk Ratios
 - Sortino Ratio
 - Information Ratio (IR)
 - Omega Ratio
- Skewness & Kurtosis
- Biases Skewing the Data

Topic 3: Evaluating Hedge Funds

- Problems of Quantitative Analysis
- Maximum Drawdown
- Calculating Alpha
- Is Leverage Risky?
- Liquidity
- Investment Style, Style Drift, & Adaptability

Hedge Funds – Strategies

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize how hedge fund returns are related to market movements
- Classify the major hedge fund investment styles (such as relative value trading, event-driven strategies, and directional trading) and their different characteristics, market exposure, and leverage requirements

Tutorial Overview

Hedge funds exist to make money from investing – anywhere. This leads to numerous different and ever-evolving investing styles. These hedge fund investing styles are the subject of this tutorial. It examines the key differences between such styles in terms of market exposure, required leverage, correlation to major markets, and gives a description of the key categories. It also briefly examines the topic of hedge fund factor analysis and replication.

Prerequisite Knowledge

Hedge Funds – An Investing

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Hedge Fund Strategies & Performance

- Hedge Fund Strategies & Market Correlation
- Hedge Fund Strategies Compared
- Why Different Strategies Matter
- Multi-Strategy Hedge Funds

Topic 2: Relative Value Trading

- Overview of Relative Value Trading
- Arbitrage & Hedge Fund Styles
- Equity Market Neutral (EMN)
- Fixed Income Arbitrage
- Convertible Arbitrage

Topic 3: Event Driven Strategies

- Overview of Event Driven Arbitrage
- Merger Arbitrage (Risk Arbitrage)
- Distressed Securities

Topic 4: Directional Strategies

- Overview of Directional Strategies
- Global Macro
- Short Bias
- Long/Short Equity
- Emerging Markets

Topic 5: Other Hedge Fund Strategies

- Managed Funds
- Funds of Hedge Funds
- 130/30 Strategies
- Hedge Fund Replication

Hong Kong Anti-Money Laundering (AML)

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the purposes, methods, and stages of the money laundering process
- Identify the roles of the regulatory bodies in Hong Kong in the fight against money laundering
- List your personal obligations under Hong Kong's laws and regulations
- Recognize the difficulties in identifying terrorist financing and the corresponding offences

Tutorial Overview

The need to launder illicit funds is an ongoing problem for criminals. They continue to devise increasingly sophisticated means of laundering funds. The Financial Action Task Force – a specialist anti-money laundering agency – has put financial institutions and their employees on the frontline of the battle against money laundering.

This tutorial explains the stages and ways in which money is laundered. It describes the best practices and legislation that financial institutions and other designated bodies need to follow to counter money laundering and terrorist financing.

Prerequisite Knowledge

None

Tutorial Level: Introductory

Tutorial Duration: 90 minutes

Tutorial Outline

Topic 1: Money Laundering & How it is Detected

- What is Money Laundering?
- Stages of Money Laundering
 - Placement
 - Layering
 - Integration
- The Placement of Money in the Financial System
- Hiding Dirty Money
- Business & Countries Typically Used for Money Laundering
- Detecting Money Laundering
- Hong Kong's Defense at the Placement Stage
 - Individual Account Applications
 - Corporate Account Applications
- Case Study: Tsoi Chit-tsang

Topic 2: Hong Kong's Legal & Regulatory Framework

- Hong Kong's Approach to Combatting Money Laundering
 - Legislation
 - Regulators in the Financial Sector
 - Hong Kong Monetary Authority (HKMA)
 - Securities & Futures Commission (SFC) of Hong Kong
 - Office of the Commissioner of Insurance (OCI)
 - Joint Financial Intelligence Unit (JFIU)
 - Independent Commission Against Corruption (ICAC)
- Law Enforcement/Criminal Justice Act
- International Cooperation
 - Financial Action Task Force (FATF)
 - Bank for International Settlements (BIS)
 - United Nations (UN)
 - Asia/Pacific Group on Money Laundering (APG)

Topic 3: Legal & Regulatory Obligations

- Money Laundering Offenses & Penalties
- The "Guideline" on Anti-Money Laundering & Terrorist Financing
 - Customer Acceptance Policy
 - Due Diligence
 - Simplified Due Diligence (SDD)
 - Enhanced Due Diligence (EDD)
 - Politically Exposed Persons (PEPs)
 - Correspondent Banking
 - Keeping Customer Information Up-to-Date
 - Monitoring and Record-Keeping
- Departmental Checklist
- Case Study: State Bank of India

Topic 4: Curbing Terrorist Financing

- Funding Terrorism
- Difficulty in Detecting Terrorist Financing
- Sources of Funding
 - Charities & non-profit organizations (NPOs)
 - Illegal activities
 - Collection of monetary gifts
 - Fund-raising activities
 - Legitimate businesses
- Curbing the Financing of Terrorism in Singapore
- Case Study – Islamic State of Iraq and the Levant

Hong Kong Equity Market

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- List the stock exchanges, market regulators, stock indexes, and types of security in the Hong Kong market
- Describe the listing, trading, and settlement procedures for equities in Hong Kong

Tutorial Overview

Hong Kong is seen as the gateway to Mainland China; a commercial dynamo, strategically located in a region renowned for high levels of growth, and with close trading and business links to the rest of the Asian region. The Hong Kong equity market is an important source of capital for local companies and increasingly for companies incorporated in the People's Republic of China (PRC), with the result that it has managed to attract a significant amount of investment interest from overseas. This tutorial provides a detailed introduction to the various aspects of equity securities traded in Hong Kong, including the history and development of the market, the different securities traded and trading locations, leading stock indexes, listing requirements and procedures, and trading operations.

Prerequisite Knowledge

Equity Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Market Overview

- History
- Market Capitalization
- Hong Kong Markets
 - Main Board
 - Growth Enterprise Market (GEM)
- Securities Traded
 - Red Chips
 - H Shares
 - A Shares & B Shares

Topic 2: Listing, Trading, & Settlement Procedures

- Listing Sponsors
- Listing Timeline
- Listing Requirements
- Trading Operations – Trading Hours
- Trading Procedures
- Trading Systems
- Trading Rules
- Trading Lot & Minimum Bid Size
- Charges, Fees & Taxes
- Clearing & Settlement

Interest Rate Options – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the terminology employed with interest rate options
- Recognize the key uses of interest rate caps, floors, and collars
- Identify the main applications of swaptions and how these instruments are settled

Tutorial Overview

Interest rate options are financial derivatives that allow the holder to speculate on – or hedge against – interest rate movements. This tutorial looks at the main types of interest rate option, including caps, floors, collars, and swaptions and their main applications.

Prerequisite Knowledge

Options – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Terminology

- Interest Rate Products & Dematerialization
- Interest Rates: Options Terminology

Topic 2: Caps, Floors, & Collars

- Overview
- Caps & Floors
- Cap: Example
- Caps & Floors Combined
- Collars
- Caps, Floors, & Collars: Example
- Caps & Floors: Swaps

Topic 3: Swaptions

- Swaptions & IRS
- Swaptions & Early Swap Termination
- Swaption Applications: Example
- Cash Settlement

Interest Rate Options – Types

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the key features and uses of caps and floor contracts
- Identify the main features and applications of swaptions, including swap opening and termination

Tutorial Overview

Interest rate options such as caps, floors, and swaptions have a variety of applications. This tutorial looks at the main features of these instruments and their key uses.

Prerequisite Knowledge

Interest Rate Options – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Caps & Floors

- Cap/Floor: Specifications
- Floating Rate Loan with Caps & Floors
- Floating Rate Loan with Caps & Floors: Example
- Caps/Floors: Interest Rate Sensitivity
- Nonlinearity
- Delta

Topic 2: Swaptions

- What Is a Swaption?
- Swaptions: Specifications
- Cross-Currency Swaption
- Swaptions: Counterparty Credit Risk Mitigation
- Uses of Swaptions

Interest Rates & Benchmarks

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the influence of official central bank rates on money market rates of various maturities
- Calculate interest on various money market products
- Identify market benchmark rates such as LIBOR and Euribor, and the growing significance of overnight indices as market benchmarks

Tutorial Overview

This tutorial introduces official interest rates and their influence on financial markets and the economy as a whole. The tutorial outlines the use of simple, zero-coupon, interest rates and their application to accrual products in the money markets. It also examines market rates and the currency day count conventions used in money market calculations. Finally, the tutorial shows how reference rates such as LIBOR and Euribor are calculated in today's money markets, and how overnight indices have developed as a benchmark replacement for LIBOR and Euribor

Prerequisite Knowledge

Interbank Market

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Market Rates & Maturities

- Interest Rates & The Economy
- How Central Banks Influence Official Interest Rates
 - Open Market Operations
 - Official Interest Rates
 - Lender of Last Resort
 - Central Bank Reserves
- Official Rates & Interbank Rates
- Money Market Zero-Coupon Rates
- Interest Rates & Yield Curves
 - Normal Yield Curve
 - Flat Yield Curve
 - Inverted Yield Curve

Topic 2: Interest Rate Calculations

- Day Count Conventions
 - Actual/365 Fixed
 - Money Market Basis Actual/360
- Interest Calculations
 - Formula
 - Example
- Comparing Interest Rates with a Different Day Basis
 - Formula
 - Example

Topic 3: Reference Rates & Indices

- Reference Rates
 - LIBOR
 - Calculating LIBOR
 - Euribor
 - Why Are LIBOR & Euribor Important?
 - Other Interbank Benchmark Rates
 - Using Reference Rates
- Overnight Indices
 - Overnight Index Swaps
 - Types of Overnight Average Rate
 - Calculating the Overnight Average Rate for a Trade
 - LIBOR-OIS Spread

Investment – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify a number of different perspectives on investment and some of the motives for investment
- List the key characteristics of various asset classes
- Recognize the risk-return trade-off and the main risks to which investors are exposed

Tutorial Overview

Terms like “investment” or “investing” are used in the media every day without anyone actually defining what exactly they mean. This tutorial adopts a different perspective and will set you out on the road to understanding the fundamentals of investment and its management. Beginning with a discussion of the concept of investment as a whole and the various perspectives on it, the tutorial goes on to deal with a variety of crucial concepts and issues that must be grasped by all investment industry professionals.

Prerequisite Knowledge

Financial Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Investment Basics

- Some Perspectives on Investment
- Definition of Investment
- Why Invest?
 - Differing Motivations
- Investing vs. Gambling
 - An Expert View
- Investment Perspectives
 - Finance
 - Economics
- Investors
 - Institutional Investors
 - Individual Investors (Retail)
 - Individual Investors (HWNIs)
- Passive vs. Active Investment
- Direct vs. Indirect Investing
- Investment Risk
 - Credit Risk
 - Interest Rate Risk
 - Reinvestment Risk
 - Market Risk
 - Liquidity Risk
 - Inflation Risk
- Leveraging
 - Using Borrowed Funds
 - Using Derivatives

Topic 2: Investable Assets

- Asset Classes
 - Equities
 - Fixed Income
 - Cash & Cash-Equivalents
 - Alternative Assets

Investment Risk & Return

- Trading Risk for Return
- Modern Portfolio Theory (MPT)
 - Attitude to Risk
- Alternatives to MPT
 - Behavioral Finance
 - Adaptive Markets Hypothesis (AMH)

Liquidity Risk – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the reasons why the nature of the banking business means that banks are particularly exposed to liquidity risk
- Identify the problems with liquidity risk management that were exposed by the global financial crisis and the regulatory response to this
- Recognize the relationship between asset-liability management and liquidity risk
- Identify the key components of the liquidity risk management framework

Tutorial Overview

Liquidity risk is the risk that a bank will be unable to fund an increase in its assets or meet its obligations as they fall due. Banks are particularly vulnerable to liquidity risk, as was proven during the financial crisis.

This tutorial examines why liquidity issues such as those experienced during the crisis can arise, and how both regulators and banks have changed their approach to assessing and managing liquidity risk since the crisis. The tutorial also introduces the concept of ALM and outlines how liquidity risk is managed as part of a bank's overall ALM strategy.

Prerequisite Knowledge

Risk Management – Risk Types & Measurement

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview of Liquidity Risk

- Overview of Liquidity Risk
- Liquidity Risk: A Perspective
- Bank Balance Sheets & Leverage
- Maturity Transformation
- Maturity Transformation & Inverted Yield Curves
- Customer Trust
- Customer Trust: Bank Run in Greece
- Liquidity Risk During the Financial Crisis
- Regulatory Response
- Regulatory Response: New Liquidity Ratios
- Business Strategy & Liquidity Risk: Challenges
- Business Strategy & Liquidity Risk: Actions

Topic 2: ALM & Liquidity Risk

- ALM & Liquidity Risk
- What Is Asset-Liability Management (ALM)?
- ALM & The Treasury Function
- ALM Strategy
- ALM Strategy: A More Coordinated Approach
- ALM & Liquidity Management
- Decisions that Impact ALM & Liquidity Management

Topic 3: Risk Management Framework for Liquidity Risk

- Risk Management Framework for Liquidity Risk
- Risk Management Framework (RMF) for Liquidity Risk
- Components of an RMF
- Liquidity RMFs: A Regulatory Perspective
- Regulatory Oversight

Market Risk – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the main types and sources of this risk
- Recognize the problems with market risk management that were exposed by the global financial crisis and the regulatory response to this
- Identify the key components of the risk management framework required for the effective identification, measurement, and management of market risk

Tutorial Overview

Market risk is the risk that the value of a position may rise/fall due to changes in the market prices or rates. This may take the form of gains/losses arising from traded or nontraded positions. There are many influences on market positions, but the key drivers are interest rates, equity prices, foreign exchange rates, and commodity prices.

This tutorial addresses some key issues associated with market risk: What is it? Where does it come from? How can it be managed effectively? And how has its management and regulation been influenced by market events such as the financial crisis and various rogue trader incidents?

Prerequisite Knowledge

Risk Management – Risk Types & Measurement

Tutorial Level: Intermediate

Tutorial Duration: 50 minutes

Tutorial Outline

Topic 1: Overview of Market Risk

- What Is Market Risk?
- Favorable Market Movements
- Types of Market Risk
- Sources of Market Risk
- Trading Book vs. Banking Book
- Trading Book vs. Banking Book: Distinguishing Between Exposures
- Lessons From the Financial Crisis
- Regulatory Response

Topic 2: Risk Management Framework for Market Risk

- Overview of the Risk Management Framework (RMF) for Market Risk
- Components of an RMF
- Organizational Structure & Resourcing
- Infrastructure
- Policies
- Authorities
- Processes
- Committee Structures
- RMFs & Lessons from Rogue Traders
- Risk Culture & Rogue Trading: A Rogue Trader's Perspective (Kweku Adoboli)
- Scenario: Potential Rogue Trading

Mergers & Acquisitions (M&A) – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the different types of M&A deal and the high-level process involved in such deals
- Recognize the methods that analysts use to value M&A deals (DCF analysis, trading comparables, and transaction comparables)
- Identify the key takeover defenses that target companies can use to repel hostile takeovers
- Recognize the different ways that companies can demerge or divest their assets

Tutorial Overview

Mergers and acquisitions (M&A) – also referred to as takeovers – are combinations of two or more companies. M&A transactions are part of everyday business life and some deals are quite high profile, running to many billions of dollars. This tutorial provides a high-level overview of the M&A world, including the role played by investment banking analysts in valuing such deals.

Prerequisite Knowledge

Corporate Finance – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview of M&A

- Acquisition Process
- Friendly vs. Hostile Takeovers
- Merger or Acquisition?
- How Companies Can Combine Together
- Vertical Integration
- Horizontal Integration
- Conglomeration
- M&A and Business Lifecycles
- Scenario: Business Lifecycles

Topic 2: Deal Valuation

- Deal Valuation
- Paying for a Target Company
- Target Company Valuation
- Determining an Appropriate Valuation Method
- Factors Affecting Valuation
- Scenario: Deal Valuation

Topic 3: Takeover Defenses

- Takeover Defenses
- Pre-Offer Defenses
- Post-Offer Defenses

Topic 4: Other Corporate Restructuring Events

- Restructuring Events

Mergers & Acquisitions (M&A) – Analysis

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Determine whether a proposed M&A deal is EPS accretive or dilutive
- Identify the key strategic reasons and motivations for companies to make acquisitions
- Recognize the potential downsides of M&A deals

Tutorial Overview

One of the key reasons that companies make acquisitions is to realize the benefit of synergies. By combining together, the whole is expected to be stronger than the individual parts. But there are other motives for corporate acquisitions. This tutorial describes the financial and strategic motives for M&A deals and also examines the potential downsides of such deals.

Prerequisite Knowledge

Mergers & Acquisitions (M&A) – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Financial Motives for Mergers & Acquisitions

- EPS Accretion/Dilution Analysis
- Illustration of EPS Accretion
- Illustration of EPS Accretion: All-Stock Deal
- Illustration of EPS Accretion: All-Cash Deal
- Illustration of EPS Dilution
- EPS Bootstrapping

Topic 2: Strategic Motives for Mergers & Acquisitions

- Why Do Companies Pursue an M&A Strategy?
- Synergies
- Product Diversification
- Product Lifecycle
- Scale
- Supply Chain Integration
- Other Motives

Topic 3: Downsides to Mergers & Acquisitions

- Potential Downsides

Money Market Funds

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the various features and characteristics of money market funds
- Compare the different valuation methods for money market funds, namely constant net asset value (CNAV) and variable net asset value (VNAV)

Tutorial Overview

This tutorial examines the important role played by money market funds (MMFs) in the wholesale money markets. It explores the difficulties that money market fund managers face in terms of counterparty credit risk and in identifying investment products that will deliver a better return than bank deposits. Key regulatory requirements in relation to issues such as credit quality, liquidity, diversification, and maturity are also discussed. Finally, the tutorial describes the accounting approach to the valuation of MMF assets and the use of net asset value (NAV) in this process.

Prerequisite Knowledge

Money Markets – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview of Money Market Funds

- What is a Money Market Fund?
- The Case for MMFs
- Features of MMFs
 - Fund Type
 - Yield
 - Share Price (NAV)
 - Credit Ratings
 - Liquid Assets
 - Redemptions
 - Lack of Deposit Insurance
- Establishing MMFs
- MMF Risks & Challenges
- Harmonization of Regulations
- Key Regulatory Requirements
 - Credit Quality
 - Diversification
 - Maturity
 - Liquidity
 - Stress Testing
 - Transparency
- Investor Considerations
- MMFs Around the World

Topic 2: Valuation of Money Market Funds

- Net Asset Value (NAV)
- Constant Net Asset Value (CNAV)
 - Distributing CNAV
 - Accumulating CNAV
- Variable Net Asset Value (VNAV)
 - Distributing VNAV
 - Accumulating VNAV
- Share Price Rounding (“Penny Rounding”)
- Accounting Considerations for MMFs
 - Amortized Value
 - Market Value
 - Shadow NAV

NPV & IRR

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the importance of the NPV rule in identifying profitable investments
- Calculate the internal rate of return (IRR) on an investment and use this in conjunction with NPV to decide between investment alternatives

Tutorial Overview

This tutorial provides a framework for analyzing different investments using the fundamental concepts of present value and discounting, and the decision rules of NPV and IRR.

Prerequisite Knowledge

Present Value & Future Value

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Net Present Value (NPV)

- What is Net Present Value (NPV)?
- NPV Formula
- NPV: Example
- Scenario

Topic 2: Internal Rate of Return (IRR)

- What is IRR?
- IRR: Formula
- IRR: Example
- NPV Versus IRR Decision Rules
- NPV Versus IRR Decision Rules: Example
- IRR & Reinvestment Risk

Operational Risk – Measurement & Reporting

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key issues associated with the measurement of operational risk
- Calculate regulatory capital for operational risk
- Recognize the importance of operational risk reporting and the different types of report that banks produce

Tutorial Overview

While some risks lend themselves naturally to quantitative measurement, it is not always clear whether operational risk exposures can be captured successfully using numerical methods. This tutorial looks at the various measures used to quantify operational risk, the challenges and issues associated with the measurement of operational risk, and the reporting of such measures.

Prerequisite Knowledge

Operational Risk – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Measuring Operational Risk

- Objective vs. Subjective Measures of Operational Risk
- Issues with Objective & Subjective Measures
- Collating Loss Data
- Internal vs. External Loss Data
- Issues in Collating Loss Data
- Operational Risk Measures & Risk Assessment
- Inherent (Gross) Risk vs. Residual (Net) Risk
- Other Issues with Operational Risk Measures

Topic 2: Capital Calculations for Operational Risk

- Basic Indicator Approach (BIA)
- The Standardized Approach (TSA)
- Alternative Standardized Approach (ASA)
- Advanced Measurement Approach (AMA)
- Advantages & Disadvantages of the Various Basel Approaches
- The Need for a New Approach
- Standardized Measurement Approach (SMA)
- SMA: Calculating the Capital Charge
- SMA: Implications
- SMA: Other Points to Note

Topic 3: Reporting Operational Risk

- Purpose of Operational Risk Reporting
- Target Audience
- Contents of Risk Reports
- RAG Status Reports
- Risk Assessment Reports
- Loss Data Reporting
- Pillar 3 Disclosures
- Reporting Challenges & Other Issues

Option Valuation – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize how the type and width of an option's payoff distribution affects its valuation
- Recall how to value an option using techniques such as binomial expansion, the Black-Scholes formula, and Monte Carlo simulation

Tutorial Overview

This tutorial looks at the key inputs into option valuation and the different techniques, such as binomial expansion, Black-Scholes, and Monte Carlo techniques that are used to value options.

Prerequisite Knowledge

Derivatives – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Basics of Option Valuation

- Binary, Discrete, & Continuous Outcomes
- Volatility
- Risk Neutrality & Discounting
- Discounting & Funding Curves
- Option Pricing vs. Valuation

Topic 2: Option Pricing Techniques

- Pricing Options
- Binomial Techniques
- Numerical Processes
- Simulation Techniques
- Simulation Techniques: Valuation

Option Valuation – Black-Scholes-Merton

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the core elements of the Black-Scholes equation
- Recognize how the cost of replicating an option outcome can be used to determine the fair value of the option

Tutorial Overview

This tutorial looks at how the Black-Scholes equation for a call option can be broken down into the option delta times the stock price and the present value of the exercise price. The replicating portfolio approach to determining the fair value of an option is also examined in detail.

Prerequisite Knowledge

Option Valuation – An Introduction

Tutorial Level: Advanced

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: The Black-Scholes Model & Merton Validation

- The Black-Scholes Model
- Background to Black-Scholes
- Black-Scholes Formula
- Merton Validation
- Black Scholes & Volatility

Topic 2: Black-Scholes & The Replicating Portfolio

- Black-Scholes Model: Replication of Outcomes
- Black-Scholes & The Replicating Portfolio: Price Nodes
- The Replicating Portfolio: Borrowing
- The Replicating Portfolio: Option Valuation
- The Replicating Portfolio: Solving for the Borrowing Amount & Delta
- The Replicating Portfolio: Option Value
- Option Valuation & The Replicating Portfolio in Excel
- Option Valuation & The Replicating Portfolio in Excel: Example
- Excel Approximation

Option Valuation – Future Asset Prices & Volatility

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- List the different types of volatility and recall the process for calculating volatility in Excel
- Recognize the difference between asset prices and returns, and between normal and lognormal distributions
- Identify the different types of volatility pattern, including the volatility smile and volatility surface
- Recognize the importance of the term structure of volatility and its different shapes

Tutorial Overview

Volatility is a key input in the correct valuation of options. This tutorial looks at how volatility is calculated in Excel and issues such as fat tails, heteroscedasticity, and skew that affect its correct calculation. The different types of volatility shapes, such as the volatility surface and volatility smile, and the term structure of volatility are also examined in detail.

Prerequisite Knowledge

Option Valuation – Sensitivities & Outcomes

Tutorial Level: Advanced

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Volatility Terminology & Calculations

- Volatility Terminology
- Calculating Volatility in Excel
- Calculating Implied Volatility in Excel
- Annualization of Daily Standard Deviation

Topic 2: Asset Returns & The Normal Distribution

- Assumption of Normal Distribution of Asset Returns
- Random Walk vs. Mean Reversion

Topic 3: Volatility Patterns

- Volatility Smile/Volatility Smirk
- Volatility Smile: Explanation

Topic 4: Term Structure of Volatility

- Volatility Term Structure
- Steep & Flat Term Structure
- Inverted Term Structure
- Short-Term vs. Long-Term Implied Volatility
- Volatility Surface

Option Valuation – Key Concepts

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recall how options that are in the money at expiration are automatically exercised while those that are out of the money lapse
- List the key inputs into option pricing, including the underlying stock price, the strike, time, volatility, risk-free rate, and dividends (or other asset income)
- Recognize the difference between realized volatility, implied volatility, and expected volatility
- Identify the main option pricing sensitivities, including delta, gamma, and theta
- Recognize the importance of put-call parity in identifying option arbitrage opportunities

Tutorial Overview

There are a number of key inputs into the valuation of options with many of these inputs also having an associated price sensitivity. This tutorial looks at these inputs and sensitivity measures and also looks at the importance of put-call parity in exploiting potential option mispricings through arbitrage.

Prerequisite Knowledge

Option Valuation – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Moneyness

- Moneyness of an Option
- Moneyness: Features
- Moneyness & Option Price Sensitivity
- Delta: Example
- Intrinsic Value & Time Value

Topic 2: Option Pricing & Forwards

- Paying for an Asymmetrical Risk Exposure
- Option Pricing Using the Normal Distribution
- Forward Prices & Options
- Forward Prices & Options: Example
- Forward Pricing of a Dividend-Paying Stock

Option Valuation – Sensitivities & Outcomes

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the importance of moneyness and measures of option sensitivity such as delta
- Identify how forward prices are connected to option prices and how forwards are priced in Excel

Tutorial Overview

This tutorial looks at the basic dynamics of option values, exploring the relationship between option prices and forward prices, the concept of option moneyness, and the breakdown of option prices into time value and intrinsic value.

Prerequisite Knowledge

Option Valuation – An Introduction

Tutorial Level: Advanced

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Moneyness

- Moneyness
- The Moneyness of an Option
- Moneyness: Features
- Moneyness & Option Price Sensitivity
- Delta: Example
- Intrinsic Value & Time Value

Topic 2: Option Pricing & Forwards

- Paying for an Asymmetrical Risk Exposure
- Option Pricing Using the Normal Distribution
- Forward Prices & Options
- Forward Prices & Options: Example
- Forward Pricing of a Dividend-Paying Stock

Topic 3: Option Pricing Influences: Time & Volatility

- Time
- Volatility
- Changes in Volatility & Time: Excel
- Volatility: Key Features
- Types of Option Volatility

Topic 4: Option Pricing Inputs & Sensitivities

- Other Key Inputs & Sensitivities in Options

Topic 5: Put-Call Parity

- What Is Put-Call Parity?
- Put-Call Parity: Application
- Put-Call Parity in Excel
- Scenario: Put-Call Parity

Portfolio Management – Passive vs. Active Strategies

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the types and features of passive portfolio management
- Recognize the techniques used in active portfolio management
- Identify the investment strategies that are blurring the lines between passive and active portfolio management approaches

Tutorial Overview

A portfolio's objective is dependent upon an investor's future cash flow requirements and their tolerance for risk. Whatever the objective, there are two basic strategies to choose from – passive or active. This tutorial starts by taking a detailed look at indexing, a strategy adopted by the passive management community. We then move on to discuss the market timing mentality of active portfolio managers. We conclude by examining alternative approaches that are blurring the traditional distinctions.

Prerequisite Knowledge

Investment – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Passive Portfolio Management

- Passive Management Defined
- Types of Passive Strategy
- Index Fund Construction
- Exchange Traded Funds (ETFs)
- Benefits of Indexing
- Drawbacks of Indexing

Topic 2: Active Portfolio Management

- Active Management Defined
- Asset Allocation
- Security Analysis & Selection
- Market Timing
- Market Timing: Beating Market Returns
- Fundamental Analysis
- Technical Analysis
- Quantitative Analysis

Topic 3: Variations on Active/Passive Management

- The Active/Passive Spectrum
- Smart Beta
- Smart Beta vs. Traditional Beta
- Factor-Based Investing
- Focus Investing
- Questions of Definition

Present Value & Future Value

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the relationship between the present value, future value, and the discount factor
- Calculate the future value of an investment for a given present value and a given interest rate

Tutorial Overview

In financial markets, there are many examples of cash flows that occur at some point in the future but which need to be evaluated today. A cash flow in the future has a value today called the present value. This tutorial describes the concepts of present value and future value, and the relationship between them.

Prerequisite Knowledge

Interest Calculations

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Present Value

- What is Present Value (PV)?
- Present Value: Example
- Present Value of Multiple Future Cash Flows
- Present Value of Multiple Future Cash Flows: Example

Topic 2: Future Value

- What is Future Value (FV)?
- Calculating Future Value
- Calculating Future Value: Example
- Future Value & Compounding Frequency
- Future Value & Compounding Frequency: Example
- Calculating Present Value from Future Value
- Calculating Present Value from Future Value: Example
- Calculating the Discount Rate or Number of Periods

Private Equity – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key features of private equity
- Recognize the investment process and the key participants in that process
- Define the key private equity performance measurement metrics

Tutorial Overview

Private equity (PE) is a generic term used for capital investments outside of the public markets. It represents a different way of “owning” companies compared with the more familiar stock market investment. This tutorial describes the key features of the modern PE industry, focusing in particular on the private equity lifecycle, the different forms of private equity, and the methods of measuring private equity performance.

Prerequisite Knowledge

Investment – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview of Private Equity

- What Is Private Equity?
- A Note on Terminology
- PE Lifecycle
- Types of PE
- PE Firms

Topic 2: Investing in Private Equity

- Methods of Investing
- Role of General Partners
- Use of Leverage
- Leverage & Risk
- Fundraising & Capital Commitments
- Dry Powder
- The J-Curve
- Fees
- Distribution Waterfall
- Distribution Waterfall: Example
- Criticism of the “2-and-20” Fee Structure

Topic 3: Performance Measurement

- Internal Measurements
- Public Market Equivalent (PME)
- Other Issues
- Scenario: A Private Equity Investment

Private Equity – Investing

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the qualities of an ideal investment target
- Define the various stages in investing in a target company
- Recognize the importance of target valuation and achieving an optimal capital structure when structuring a deal
- Identify the typical holding period for a PE investment and the exit mechanisms available to the PE firm

Tutorial Overview

This tutorial looks at the how a PE firm identifies an ideal target company and the stages it needs to go through to realize its investment. The structuring of the transaction and the exit mechanisms available to the private equity firm are also examined in detail.

Prerequisite Knowledge

Private Equity – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 50 minutes

Tutorial Outline

Topic 1: Investment Targets

- What Makes a Good PE Investment?
- Qualities of an Ideal PE Target

Topic 2: Investing in a Target Company

- Management Buyouts/Buy-ins
- Other Types of PE Investment
- Key Stages in the PE Investment Process
- Initial Stage
- Auctions
- Auction Process
- Auctions: Due Diligence

Topic 3: Target Valuation & Deal Structuring

- Company Valuation
- EV/EBITDA
- EV/EBITDA: Issues
- Structuring the Deal
- Structuring the Deal: Debt
- Structuring the Deal: Equity
- Structuring the Deal: Mezzanine Finance
- Achieving an Optimal Capital Structure

Topic 4: Holding Period & Exits

- Holding Period
- Holding Period: Fees
- Exits

Private Wealth Management – Alternative Investments

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the attractions and drawbacks of alternative investments for private wealth clients
- Identify the importance of hedge funds and identify their key sub-types
- Recognize the benefits and drawbacks of private markets and private equity
- Define the real asset class and list its key subtypes

Tutorial Overview

Alternative investments are those that are not included in the traditional investment classes and typically include investments such as private equity, hedge funds, and real assets. This tutorial looks at the benefits and risks of alternative investments and associated strategies for private wealth clients and describes the main sub-classes in this category.

Prerequisite Knowledge

Private Wealth Management – Investment Services

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Alternative Investments for Private Wealth Clients

- Overview of Alternative Investments
- Alternative Investment Strategies
- Alternative Investments: Challenges for Private Wealth Clients
- Benefits & Drawbacks of Alternative Investments

Topic 2: Hedge Funds

- Overview of Hedge Funds
- Evolution of Hedge Funds
- Types of Hedge Fund
 - Long-Short
 - Event Driven
 - Distressed Debt
 - Merger Arbitrage
 - Special Situations (Activist)
 - Relative Value
 - Convertible Arbitrage
 - Asset-Backed Securities Arbitrage
 - Statistical Arbitrage
 - Credit Arbitrage
 - Fixed Income Arbitrage
 - Directional
 - Global Macro
 - Short Bias
 - Emerging Markets
 - Fund of Funds

Topic 3: Private Equity

- Overview of Private Markets
- Investing in Private Equity
- Types of Private Equity
 - Direct Investment
 - Private Equity Fund
 - Fund of (Private Equity) Funds

Topic 4: Real Assets

- Overview of Real Assets
- Types of Real Asset
 - Commodities
 - Real Estate
 - Collectables
 - Infrastructure

Private Wealth Management – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Distinguish private banking activities from wealth management activities
- Recognize how the private wealth management industry has evolved over the years
- Identify the different types of private client service propositions and the various sources of revenue for private wealth management firms

Tutorial Overview

This tutorial introduces and defines the concepts of private banking and wealth management. It identifies the general activities of private banking and wealth management businesses, the different types of business and their value proposition, and the various fee structures and revenue models. The tutorial also outlines the evolved history and current trends in the industry.

Prerequisite Knowledge

Financial Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Overview of Private Banking & Wealth Management

- A Perspective on Wealth
- Definition of Private Banking
 - Private Bankers
- Definition of Wealth Management
 - Wealth Managers
- Retail Banking, Premium Banking, & Private Banking
- Qualifying Clients

Topic 2: Industry Development

- History & Evolution
- The Private Banking & Wealth Management Industry Today
- Types of Private Bank & Wealth Management Firms
 - Retail/Consumer Banks
 - Investment & Merchant Banks
 - Universal Banks
 - Trustee Firms
 - Brokerage Firms
 - Family Offices

Topic 3: Private Client Service Propositions & Sources of Revenue

- Value Propositions & Client Service Models
 - Relationship & Distribution Management
 - Wealth Management & Planning
 - Customization of Banking & Investment Products
 - Transaction & Reporting Services
- Sources of Income & Revenue
 - Transaction Fees & Commissions
 - Interest Income
 - Trading Income
- Revenue Fee Models
 - Transactional Fee Model
 - Advisory Fee Model
 - Hybrid Fee Model

- Industry Challenges
 - Risk & Compliance Requirements
 - Tax Transparency & Reporting
 - Higher Client Expectations
 - Outdated Client Service Models
 - Requirement for Digital Services
 - Competition from Non-Traditional & Disruptive Market Players

Private Wealth Management – Banking & Deposit Services

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key deposit-based products offered by private banks and wealth management firms
- List the key transaction banking services required by private wealth clients
- Recognize the importance of international banking services for high net worth clients who live and work abroad

Tutorial Overview

This tutorial looks at the key services provided by private banks and wealth management firms in the areas of deposit-taking and transaction banking. It also explores the range of banking and other wealth services to high net worth clients who live and work abroad or have substantial business dealings overseas.

Prerequisite Knowledge

Private Wealth Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Deposit-Taking Services

- Overview of Deposit Products
 - Call Deposit Accounts
 - Term Deposits
 - Savings Accounts
- Capital Market Instruments
 - Government Bonds & Notes
 - Bank Bills of Exchange
 - Negotiable Certificates of Deposit (NCDs)
 - Commercial Paper (CP)
 - Bespoke Products
- Cash Broking & Other Services

Topic 2: Transaction Banking & Payment Services

- Overview of Transaction Banking & Payment Services
- Checking Accounts
- Overdraft Facilities
- Cash Management Accounts (CMAs)
- Internet Banking
- Telephone Banking

Topic 3: International Banking & Wealth Services

- Overview of International Banking Services
- International Transaction Services
- Domestic & Foreign Deposit Services
- Other International Banking Services

Private Wealth Management – Becoming a Trusted Advisor

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the role of trust in wealth relationships and list the various stages of the trust spectrum from the perspective of the wealth manager and of the client
- Recognize the role of the trusted advisor and the key skills required to nurture trust
- Appreciate the importance of continuous improvement and client feedback in building trust

Tutorial Overview

This tutorial looks at the importance of trust between the wealth manager and the client and the benefits of trust for both parties. The skills and phases involved in becoming a trusted advisor are also examined in detail.

Prerequisite Knowledge

Private Wealth Management – Client Acquisition & Relationship Management

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Building Client Trust

- Overview of Trust
- Trust Selling
- Building the Trust Relationship
- The Wealth Manager as Trusted Advisor
- Trusted Advisor: Grades of Trust
- Earning & Enhancing Trust
- Offering Advice

Topic 2: Skills of the Trusted Advisor

- Developing a Trust Relationship
- Trusted Advisor Skills
 - Listening
 - Clarifying
 - Reality Checking
 - Getting Commitment

Topic 3: Nurturing Trust in Private Wealth Management

- The Need for Continuous Improvement
- Asking the Client for Feedback
- Getting Client Acceptance
- Cross-Selling

Private Wealth Management – Behavioral Finance

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the importance of behavioral finance and prospect theory in understanding the motives and actions of private clients
- Identify the key behavioral biases that lead to suboptimal investment decisions
- Recognize how private wealth managers discuss behavioral biases and investment risk with clients

Tutorial Overview

Behavioral finance is a field of finance that proposes psychology-based theories to explain irrational investor decisions. Such decisions result from cognitive and emotional biases that can cause financial market values to drift substantially away from fundamental values. An understanding of behavioral finance is crucial for private wealth managers in order to identify and eliminate wealth-destroying behavioral biases in both themselves and their clients.

Prerequisite Knowledge

Private Wealth Management – Client Investment & Wealth Allocation

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Behavioral Finance & Investor Rationality

- Overview of Behavioral Finance
- The Rational Investor
- Bounded Rationality
- Prospect Theory
 - Profits & Losses

Topic 2: Investor Behavioral Biases

- Overview of Behavioral Biases
 - Loss Aversion
 - Regret Aversion
 - "Get Evenitis"
 - Wealth Management Discussions
 - Anchoring
 - Mental Accounting
 - Self-Attribution
 - Familiarity
 - Overconfidence
 - Other Investor Biases
 - Representativeness Bias
 - Framing Bias
 - Hindsight Bias
 - Confirmation Bias
 - Attention Bias
 - Gambler's Fallacy
 - Endowment Effect

Private Wealth Management – Client Acquisition & Relationship Management

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the challenges faced by private wealth managers in servicing a portfolio of clients
- Recognize the importance of growing the client base as well as retaining and protecting existing clients and the key ingredients to achieving success in this area
- Identify the process of acquiring new clients and recognize how the wealth manager can handle client objections and concerns

Tutorial Overview

This tutorial focuses specifically on the challenges associated with managing the relationships in a client portfolio, including winning new clients while simultaneously retaining and growing business from existing clients.

Prerequisite Knowledge

Private Wealth Management – Client Investment & Wealth Allocation

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Client Segmentation & Relationship Strategies

- Wealth Management & Client Portfolios
- Client Segmentation: Value & Revenue
- Client Value Matrix
- Competitive Analysis
- Client Relationships & Time Management

Topic 2: Client Portfolio Management

- Overview of Client Portfolio Management
- Building Client Trust: Personal Attributes of the Wealth Manager
- Retaining & Growing Clients
- Identifying Client Needs (Prospecting)
- Positioning

Topic 3: Client Acquisition

- Overview of Client Acquisition
- Acquiring New Clients
- Sourcing New Clients
 - Online
 - Face-To-Face
- Prospecting, Qualifying, & Winning New Clients
- Overcoming Client Objections

Private Wealth Management – Client Investment & Wealth Allocation

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the differences and weaknesses of MPT in relation to private client investment portfolios
- Recognize how the investment allocation behavior of HNW clients is based on complex considerations with different allocations based on risk appetite and stage in lifecycle
- Recall how client personal and financial needs, aspirations and risk appetites change over time and how this impacts portfolio construction and client investment product preferences

Tutorial Overview

This tutorial focuses on the client needs and associated risk appetites that drive client investing behavior and processes. The wealth-lifestyle objectives of the client and investment allocation decisions used to meet these objectives are also examined in detail.

Prerequisite Knowledge

Private Wealth Management – Ultra-HNWIs & Family Offices

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Modern Portfolio Theory (MPT) & Private Client Needs & Risks

- Overview of Private Client Investing & MPT
- MPT & Client Portfolios
- MPT & Challenges in Wealth Management
- Overview of Client Needs
- Funding Client Needs
- Client Risks
 - Market Risk
 - Liquidity Risk
 - Lifecycle Risk
 - Event Risk
- Client Tax Management

Topic 2: Client Asset Allocation & Investment Choices

- Overview of Client Asset Allocations & Investment Choices
- Client Needs & Investment Allocation
 - Example
- Managing Client Risks
- Lifecycle Investing & Human Capital
 - Example

Topic 3: Client Investment Allocation Framework

- Overview of the Client Investment Allocation Framework
- Asset Allocation vs. Risk Allocation
- Dimensions of Risk
 - Personal Lifestyle
 - Relative Lifestyle
 - Aspirational Lifestyle
- Asset Allocation & Wealth Objective Matching
 - Example
 - Risk Management
- Asset Allocation & the Private Wealth Manager

Private Wealth Management – Credit & Lending Services

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define the general environment for lending to private wealth clients, and regulatory and compliance issues related to such lending
- Identify the key types of personal loan to HNW clients
- Recognize the main commercial lending structures used in the private wealth management industry
- Identify other types of credit extended to private wealth clients

Tutorial Overview

This tutorial provides an overview of the key loan types and structures used to extend credit to private wealth clients. The tutorial also explores the general lending environment in the private wealth management industry and regulatory and compliance issues associated with such lending.

Prerequisite Knowledge

Private Wealth Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Extending Credit to Private Clients

- Overview of Private Wealth Credit
- General Environment for Lending to Private Clients
- Legal & Compliance Environment
- Loan Processing & Structuring
- Client Issues

Topic 2: Personal Lending

- Overview of Personal Loans
- Home Loans
- Personal Loans
- Credit Cards
- Other Types of Personal Loan
 - Low Document (Low Doc) Loans
 - Specialist Residential Loans
 - Self-Employed Mortgages (Contractor Loans)
 - Relocation & Bridging Loans
 - Building & Renovation Loans
 - Reverse Mortgages
 - Nonresident Lending/Overseas Mortgages
 - Collateral Loans (Lombard Loans)

Topic 3: Commercial Lending

- Overview of Commercial Lending to Private Clients
- Structuring Commercial Lending Applications
- Real Estate & Development Finance

- Trade & Receivables Financing
 - Equipment Finance
 - Motor Vehicle Finance & Secured Transactions
 - Hire Purchase (HP)
 - Leasing
 - Operating Lease
 - Finance Lease
- Cross-Selling Opportunities
 - Risk Management Issues

Topic 4: Other Types of Lending

- Other Types of Private Client Lending
- Mezzanine Finance
- Venture Capital (VC)
 - Providers
- Capital Markets
- Indemnity Guarantees
- Exotic Finance
- Alternative Financing Techniques

Private Wealth Management – Estate Planning

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key benefits of an estate plan for private wealth clients and the role of the wealth manager in estate planning
- List the key steps in the estate planning process
- Recognize the importance of regulatory compliance, taxation, and trusts in estate planning

Tutorial Overview

Estate planning is a key phase of a client's wealth journey and centers on the transfer of wealth to the next generation of heirs and valued beneficiaries, or to philanthropic purposes. This tutorial looks at the benefits and risks of estate planning, the main steps in the estate planning process, and other key estate planning issues such as regulatory compliance and taxation.

Prerequisite Knowledge

Private Wealth Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic One: Estate Planning & Wealth Management

- Overview of Estate Planning
- Estate Planning Concepts
- Trusts
 - Types of Trust
- Benefits of Estate Planning
- Estate Planning & the Wealth Manager
- Risks for the Wealth Manager

Topic Two: The Estate Planning Process

- Overview of the Estate Planning Process
- Steps in the Estate Planning Process

Topic Three: Other Issues in Estate Planning

- Compliance & Wealth Relationship Issues
- Estate Taxation

Private Wealth Management – Financial Planning

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the importance of financial planning for private wealth clients
- Identify the key steps in the financial planning process
- Recognize the regulatory and industry developments in HNW financial planning at a global level

Tutorial Overview

This tutorial provides an overview of financial planning for high net worth clients. We examine in detail the steps in the financial planning process and examine regulatory and industry developments in financial planning for private clients worldwide.

Prerequisite Knowledge

Private Wealth Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Financial Planning for Private Clients

- Overview of Financial Planning
- Financial Planning from the Private Client Perspective
- The Role of the Financial Planner
- Knowing the Client
 - Fact-Finding
- Product- Vs. Goals-Based Advice
- Financial Planning Qualifications

Topic 2: The Financial Planning Process

- Overview of the Financial Planning Process
- Key Elements of the Financial Planning Process
- Steps in the Financial Planning Process
- The Financial Planning Process: Back-End Issues

Topic 3: Regulatory & Industry Developments

- Future Challenges for Financial Planning & Advice
- Evolving Community & Regulatory Expectations
- The MIFID II Framework
- Foreign Account Tax Compliance Act (FATCA)
- Common Reporting Standard (CRS)
- CRS Requirements
- Robo-Advice
 - Criticisms
- Global Trends in Financial Planning

Quantitative Trading – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize and define the key terminology associated with quantitative trading
- Identify the quantitative trading techniques used by both buy-side and sell-side firms and how differing business models and needs influence the use of different techniques
- List some general quantitative trading techniques that are independent of the buy-side and sell-side distinction

Tutorial Overview

Quantitative trading is a subset of the broader topic of quantitative finance, and covers all aspects of using mathematical methods in trading markets. In today's world, this generally means using computers to perform the necessary calculations. This tutorial provides a high-level overview of the field of quantitative trading, looking at it from the perspective of both buy-side and sell-side firms.

Prerequisite Knowledge

Financial Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Key Definitions & Terminology

- Definitions
- Algorithms & Algorithmic Trading
- Buy-Side & Sell-Side Quantitative Trading

Topic 2: Sell-Side Quantitative Trading

- Sell-Side Business Model
- Sell-Side Functions & Personnel
- Sell-Side Functions & Quantitative Techniques

Topic 3: Buy-Side Quantitative Trading

- Buy-Side Business Model
- Business Model: Buy-Side vs. Sell-Side
- Buy-Side Functions
- Key Asset Management Personnel
- Buy-Side Quantitative Trading Techniques

Topic 4: General Quantitative Trading Techniques

- General Techniques

Real Estate – Investing

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Differentiate between direct and indirect investment in real estate, and outline the key dynamics of the residential and commercial sectors
- Describe the main considerations for investors looking to invest directly in physical properties
- Explain the various methods of indirect investment in real estate and the differences between these methods

Tutorial Overview

This tutorial describes the different means by which investors can obtain exposure to real estate as an asset class. It begins by looking briefly at the dynamics of both the residential and commercial real estate sectors from an investment point of view. The tutorial then moves on to contrast direct investment in “bricks and mortar” to various methods of indirect investment, with particular emphasis on real estate investment trusts (REITs) which have become hugely popular in recent times.

Prerequisite Knowledge

Real Estate – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Real Estate Investment

- Types of Investment
 - Direct (Physical) Investment
 - Indirect (Financial) Investment
- Sector Dynamics
 - Residential Real Estate
 - Commercial Real Estate

Topic 2: Direct Investment

- Overview of Direct Investment
- Leverage
 - LTV Ratios
 - Impact of Leverage: Example
- Direct Investment Considerations
 - Suitability
 - Overpaying
- Direct Investment Drawbacks

Topic 3: Indirect Investment

- Methods of Indirect Investment
- Stocks
- Real Estate Investment Trusts (REITs)
 - REIT Returns
 - Equity REITs
 - Mortgage REITs
 - Investing in REITs
 - Individual REITs
 - Fund REITs
- Real Estate Limited Partnerships (RELPs)
 - RELPs vs. REITs
- Real Estate Operating Companies (REOCs)
- Fixed Income Securities

- Derivatives

Real Estate – Valuation

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Describe the different price determining factors of real estate
- Understand the methods used to value real estate
- Discuss how property values can be compared
- Describe the means by which real estate investment trusts (REITs) are valued

Tutorial Overview

Real estate is generally considered to be an “alternative asset,” complementary in a portfolio context given its low correlation with the stock, bond and money markets. Fund managers need to determine how much real estate to add to a portfolio and at what price. Here we learn about how investors can value real estate.

Prerequisite Knowledge

Real Estate – Investing

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Basics of Real Estate Valuation

- Features of Real Estate Valuation
- Determinants of Property Value
 - Demand
 - Supply
 - The Property Itself
 - Property Transfer Process

Topic 2: Valuation of Individual Properties

- Valuation Indicators
- Transaction Prices vs. Market Valuation
- Methods of Valuation
 - Replacement Cost Approach
 - Direct Sales Comparison Approach
 - Income Approach

Topic 3: Relative Valuation Measures

- Valuation Measures
- House Price to Net Rental Ratio
- Yield
- House Price to Income (or Earnings) Ratio
- Other Ratios

Topic 4: Valuation of Real Estate Investment Trusts (REITs)

- Types of REIT
- Valuing REITs
 - Net Asset Value (NAV)
 - Funds from Operations (FFO)
- Key Elements of FFO Measure
- Drawbacks of the FFO Measure

Risk & Return – Efficient & Optimal Portfolios

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Explain how investors can find a portfolio that minimizes their risk exposure
- Recognize the significance of the efficient frontier in terms of portfolio selection
- Choose the optimal portfolio along an efficient frontier curve

Tutorial Overview

While there are almost endless possibilities of portfolio composition, we show how given a specific set of stocks, the optimal portfolio composition can be calculated. This tutorial is the same portfolio for all, irrespective of risk preferences. This tutorial shows how we arrive at the optimal portfolio and why it is the same tutorial that every rational investor will choose.

Prerequisite Knowledge

Risk & Return – Portfolios

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Minimum Variance Portfolio

- Minimum Variance Portfolio
- Diversification
- Effect of Diversification
- Minimum Variance Portfolio
- Correlation Coefficient
- Calculating the Correlation Coefficient in Excel
- Correlation Coefficient: Values
- Calculating the Minimum Variance Portfolio: Multi Asset Portfolio
- Calculating the Minimum Variance Portfolio: Example
- Scenario: Minimum Variance Portfolio

Topic 2: Efficient Frontier

- Efficient Frontier
- Efficient Portfolios
- Efficient Frontier
- Constructing the Efficient Frontier
- Constructing the Efficient Frontier: An Example

Topic 3: The Optimal Portfolio

- The Optimal Portfolio
- Risk/Return Trade-off
- Sharpe Ratio
- Calculating the Optimal Portfolio
- Calculating the Optimal Portfolio: An Example

Topic 4: The Complete Portfolio

- The Complete Portfolio
- Introducing the Risk-Free Asset
- Capital Market Line (CML)
- Riskless Borrowing & Lending

Risk Management – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define some key risk concepts and the major risk types
- Identify the types of activity that give rise to risk in banking and the factors that influence risk exposure and risk profiles
- Recognize the main criteria for successful risk management and distinguish between top-down and bottom-up risk management

Tutorial Overview

Banks must accept risk in order to achieve their business objectives. Over time, performance should be monitored and managed to ensure that risks that have been accepted remain within risk appetite and that new or unexpected risks do not emerge. This tutorial provides a high-level overview of risk management practices in banking today.

Prerequisite Knowledge

Risk – Primer

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic 1: Key Risk Concepts & Types

- Key Risk Concepts & Types
- The Human Factor & Risk Decision-Making
- Key Risk Concepts
- Risk Types
- Why Use Risk Types?
- Scenario: Risk Types
- Risk Measurement

Topic 2: Risk & Banking

- Risk & Banking
- Sources of Risk (Upside)
- Sources of Risk (Downside)
- Risk Exposure
- Gross vs. Net Exposure
- Risk Profile
- Risk Profile: Reporting
- Influences on Risk Exposures & Risk Profiles
- Risk & Reward: Sources of Earnings
- Risk & Reward: Pricing Considerations
- Costs of Taking Risks

Topic 3: Managing Risk

- Managing Risk
- Risk Management Success Criteria
- Top-Down & Bottom-Up Risk Management
- Risk Appetite
- Risk Appetite Statements
- Risk Appetite: Exceptions & Breaches
- Risk Management Framework
- Risk Culture

- Risk Culture & Inappropriate Behaviors

Risk Management – Business Strategy & Risk Decision-Making

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the relationship between business strategy and risk and the importance of aligning risk appetite with strategy
- Identify the stages in the risk decisioning process and how such decisions can impact risk exposure

Tutorial Overview

This tutorial describes how banks take risk into account when setting business strategy and how risk appetite is aligned with business objectives once the strategy is determined. It also explains the importance of a risk management framework and how the various elements of the framework work together when setting and implementing risk appetite. Finally, the tutorial examines the risk decision process in detail and outlines the factors, including the human element, that can affect decision-making.

Prerequisite Knowledge

Risk Management – Risk Types & Measurement

Tutorial Level: Introductory

Tutorial Duration: 50 minutes

Tutorial Outline

Topic 1: Business Strategy & Risk

- Business Strategy & Risk
- Banking & Risk
- Business Strategy & Risk
- Business Strategy & Operating Environment: Internal Factors
- Business Strategy & Operating Environment: External Factors
- Risk-Reward & Regulatory Compliance
- Risk-Reward & Regulatory Compliance: Key Aspects
- Risk Appetite
- Setting & Maintaining Risk Appetite
- Risk Appetite Statements
- Implementing Effective Risk Appetite Statements
- Risk Management Framework (RMF)
- Top-Down vs. Bottom-Up Risk Management
- Risk Appetite Setting & RMFs
- Risk Culture
- Risk Culture & Controls

Topic 2: Risk Decision-Making

- Risk Decision-Making
- The Risk Decision Process
- Examples of Risk Decisions
- Risk Decisions & Approvals
- Factors Influencing the Risk Decision Process
- Human Element in the Risk Decision Process

Risk Management – Tools & Techniques

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the different approaches that banks can take to risk management
- Identify the various tools and techniques that can be used to manage or mitigate risk

Tutorial Overview

This tutorial examines the difference between “originate-to-hold” and “proactive” approaches to managing risk as well the various tools and techniques available for managing risk. These include tools and techniques for assessing risk and make risk decisions, reducing the likelihood of a risk event occurring, reducing the impact of a risk event, and managing risk exposure. The tutorial also outlines the many factors to be taken into account when selecting a risk management tool or technique for a particular situation.

Prerequisite Knowledge

Risk Management – Business Strategy & Risk Decision-Making

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Approaches to Managing Risk

- Approaches to Managing Risk
- Originate-to-Hold
- Proactive Risk Management
- Proactive Risk Management: Pros & Cons
- Blended Approach
- Blended Approach: A Visual Representation
- Risk Exposure & Risk Types

Topic 2: Tools & Techniques

- Tools & Techniques
- Using Tools & Techniques to Assess & Manage Risk
- Credit Grades
- Automated Decisioning Systems
- Automated Decisioning Systems: Pros & Cons
- Capacity Planning
- Systems Redundancy
- Netting
- Scenario: Netting
- Matching
- Simultaneous Exchange (DVP)
- Insurance
- Insurance Claims
- Credit Insurance
- Credit Insurance as Risk Mitigation
- Mitigation (Collateral/Security)
- Common Forms of Mitigation
- Securitization
- Derivatives Hedging
- Derivatives Hedging: Example
- Other Ways to Manage Exposure
- Factors Influencing the Choice of Tool or Technique

Robotic Process Automation (RPA)

Description

Overview

Robotic process automation (RPA) refers to the use of software to replicate process steps that are typically performed by humans. This tutorial provides a high-level overview of RPA, including its benefits and limitations, particularly in the context of the financial industry. The tutorial also outlines how concepts such as machine learning and artificial intelligence are expected to enable the next stage of automation after RPA.

Prerequisite Knowledge
None

Level: Introductory
Duration: 15 minutes

Artificial Intelligence (AI)

Description

Overview

Artificial intelligence (AI) refers broadly to a spectrum of technologies and research that aim to improve the cognitive capabilities of machines and software. This tutorial provides a high-level overview of AI, including the different types of AI and the drivers of growth, particularly in the context of the financial industry. The tutorial also outlines how future breakthroughs in AI are expected to expand its current narrow applications, allowing AI algorithms to broaden in scope and interact actively across every aspect of human life.

Prerequisite Knowledge
Robotic Process Automation (RPA)

Level: Introductory
Duration: 15 minutes

Robo-Advice

Description

Overview

Robo-advisors are challenging the incumbent model of human advisors by automating the investment process through algorithms, allowing these advisors to offer wealth management services that are cheaper, faster, more convenient, and more accessible. This tutorial provides a high-level overview of robo-advice, including its growth factors and key features. The tutorial also outlines the developments that are likely to drive the growth of the robo-advisory model in the future.

Prerequisite Knowledge
Robotic Process Automation (RPA)

Level: Introductory
Duration: 15 minutes

Securitization – Asset-Backed Securities (ABS)

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Explain how the securitization technique has extended beyond its roots in the US residential mortgage market
- Describe the various asset-independent structures of securitization
- Identify the key factors in a securitization that are examined by investors, rating agencies, or other analysts
- Explain how measurements of value have evolved beyond simple fixed interest paradigms

Tutorial Overview

Although the residential mortgage-backed securities (RMBS) market accounts for the majority of securitized transactions, the basic securitization technique is asset-independent. This tutorial looks at how securitization has evolved to face the challenges presented by different asset classes. In addition to descriptions of some of the major classes outside of RMBS, the tutorial also examines how the markets for the associated securities operate and how valuation techniques have been developed to cope with the idiosyncrasies associated with securitization.

Prerequisite Knowledge

Securitization - An Introduction

Securitization - Mortgage-Backed Securities (MBS)

Tutorial Level: Intermediate

Tutorial Duration: 120 mins

Tutorial Outline

Topic 1: Overview of the ABS Market

- From Computers to Credit Cards
- Typical Assets
 - Commercial Mortgages
 - Credit Card Receivables
 - Auto Loans
 - Student Loans
 - Home Equity Loans (HELs)

Topic 2: Asset-Independent Structures

- Future Flows
- Collateralized Debt Obligations (CDOs)
Collateralized Loan Obligations (CLOs)
- Synthetics
- Asset-Backed Commercial Paper (ABCP)

Topic 3: Key Factors

- Underlying Asset Quality
- Simulations & Monitoring
- Third Parties
- Structure of Deal Reflecting
- Structure of Assets

Statement of Cash Flows – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the importance of cash to a business
- Identify the three main sections in the statement of cash flows
- Calculate cash from operating activities using the indirect method

Tutorial Overview

Using balance sheets and income statements, accountants are able to draw up statements of cash flows that detail the areas where cash is being generated and “burned” by a business.

This tutorial explains the importance of the statement of cash flows in assessing a company’s performance and future prospects. This depends not so much on earnings for the period, but more realistically on cash flow. The tutorial identifies the key elements of the statement of cash flows and how these statements are prepared.

Prerequisite Knowledge

Income Statement – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Overview of the Statement of Cash Flows

- What is a Statement of Cash Flows?
- Cash Vs. Accruals
- Uses of the Statement of Cash Flows
 - Determining Financial Health
 - Company Valuation

Topic 2: Format of the Statement of Cash Flows

- Operating Activities
- Investing Activities
 - Example
- Financing Activities
 - Example

Topic 3: Determining Cash from Operating Activities

- Calculating Cash from Operating Activities
 - Indirect Method
 - Direct Method
 - Depreciation & Provisions
 - Working Capital Changes

Swaps – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key characteristics of swap contracts
- Compare the main types of swap
- Recognize the scale and spread of the major swap markets
- Recall how the largest market, the interest rate swap (IRS) market, operates and how it and other swap markets have been affected by regulatory change

Tutorial Overview

Originating in the 1970s, swaps were once small, heavily structured, transactions. Today, they have developed into commoditized products that dominate derivatives markets around the globe.

This tutorial outlines the basic structure of a swap and the different swap types. It also describes how market participants can use swaps to transform existing asset or liability positions, or speculate on underlying market movements. Finally, the significant changes in the regulatory environment, particularly as regards clearing and trading, are discussed.

Prerequisite Knowledge

Derivatives – Markets

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Basics of Swaps

- Swaps: An Overview
- Swaps: Pricing
- Notional Principal

Topic 2: Swap Types

- Vanilla Swaps with Slight Adjustments
- Basis Swaps
- Cross-Currency Swaps
- Equity, Commodity, and Index Swaps
- Credit Derivatives
- Diff (Quanto) Swaps

Topic 3: Markets Overview

- Comparative Advantage in Borrowing
- How Swaps Benefit Those with a Comparative Advantage
- Intermediation
- Key Players
- What Is the Price?
- Differing Standards
- Documentation
- Counterparty Credit Risk
- Collateral
- Compression
- G20 Commitments
- Legislative Changes
- OTC or Exchange-Traded?

Swaps – Applications

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize how interest rate risk can be managed using interest rate swaps
- Identify the key features of an asset swap

Tutorial Overview

A typical interest rate swap allows an entity to transform fixed rate cash flows into floating rate or vice versa. This tutorial looks at how a typical corporate IRS is structured and shows how the cash flows on a bond can be restructured using an asset swap.

Prerequisite Knowledge

Swaps – An Introduction

Tutorial Level: Advanced

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Interest Rate Risk & Swap Transactions

- Interest Rate Risk
- Bond-Swap Equivalence
- Bond-Swap Equivalence: Net Cash Flows
- Swap Structures: Corporate & Institutional Applications
- Corporate Swap Transaction
- Corporate Swap Transaction: Spread
- Corporate Swap Transaction: Calculations
- Corporate Swap Transaction: Swap Rate
- Corporate Swap Transaction: LIBOR Futures

Topic 2: Asset Swaps

- What Is an Asset Swap?
- Par-Priced Swaps Vs. Market Value Swaps
- Asset Swap: Example
- Asset Swap: Motivations
- Asset Swaps & Credit Default Swaps (CDS)
- Scenario: Asset Swap

Swaps – Asset Swaps

Tutorial Description

Objectives

On completion of this tutorial you will be able to:

- Identify the key features of asset swaps
- Recognize the main motivations for investors to engage in asset swaps and the risks involved
- Recall how to price an asset swap in Excel

Tutorial Overview

An asset swap is an instrument that converts a fixed rate bond into a synthetic FRN. This tutorial looks at the structure of both single-currency and cross-currency asset swaps, the opportunities these instruments offer investors and the risks involved, and how an asset swap can be priced, using a worked example in Excel.

Prerequisite Knowledge

Swaps – Currency Swaps

Tutorial Level: Advanced

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Features of Asset Swaps

- What Is an Asset Swap?
- Asset Swap: Example
- Other Types of Asset Swap
- Asset Swap Spreads & Notionals

Topic 2: Investor Motivations & Risks

- Investor Motivations: Leverage & Target Credit Spread
- Investor Motivations: Arbitrage Opportunities
- Investor Risks

Topic 3: Pricing an Asset Swap

- Fair Pricing of an Asset Swap
- Fair Pricing of an Asset Swap: Example

Swaps – Basis Swaps

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the main types of basis swap, namely, cross-currency basis swaps, cross-index basis swaps, and tenor basis swaps
- Recognize the key applications of basis swaps

Tutorial Overview

A basis swap is a swap where both parties make floating rate payments referenced to different bases. This tutorial looks at the key types of basis swap – cross-currency basis swaps, cross-index basis swaps, and tenor basis swaps – and their main uses.

Prerequisite Knowledge

Swaps – Indices & Curves

Tutorial Level: intermediate

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Basis Swap Structures

- What Is a Basis Swap?
- Types of Basis Swap
- Cross-Currency Basis Swap
- Cross-Currency Basis Swap: Mechanics
- Scenario: Cross-Currency Basis Swap
- Cross-Index Basis Swap
- Cross-Index Basis Swap: USD LIBOR vs. US Prime Rate
- Tenor Basis Swap
- Tenor Basis Swap: Origins
- Tenor Basis Swaps: Default Premiums

Swaps – Book Management

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recall the practice of swap book management in the pre-crisis era
- Identify the different types of post-crisis swap book management techniques, including macros and micro hedges, stack hedging and strip hedging

Tutorial Overview

This tutorial looks at developments in swap book management before and after the global financial crisis. Different types of hedging technique such as stack and strip hedging are discussed and an example of hedging multiple swap positions using Euribor futures in Excel is also provided.

Prerequisite Knowledge

Swaps – Overnight Index Swaps (OIS)

Tutorial Level: Advanced

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Developments in Swap Book Management

- Swap Book Management: Pre-Crisis
- Swap Book Management: Pre-Crisis
- Swap Book Management: Post-Crisis

Topic 2: Hedging Strategies

- Market Risk Management
- Macro & Micro Hedging
- Stack Hedging vs. Strip Hedging
- Strip Hedge: Replication & Hedging
- Strip Hedge: Hedging the Floating Legs
- Strip Hedge: Excel
- Strip Hedge: Example
- Uses of the Implied Zero Curve

Swaps – Bootstrapping Zero Curves

Tutorial Description

Objectives

On completion of this module, you should be able to:

- Recognize the importance of multi-curve bootstrapping given the changes that have occurred in the swaps market since the global financial crisis
- Identify the process involved in pricing a zero coupon curve given a nonpar swap

Tutorial Overview

A number of key changes to the swaps market since the global financial crisis has meant that a multi-curve approach is required for swap pricing. This tutorial looks at the curve bootstrapping process in such an environment.

Prerequisite Knowledge

Swaps – Pricing

Tutorial Level: Advanced

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: The Swaps Market Post-Crisis

- Are Benchmark Indexes Risk-Free?
- The Future of LIBOR
- OIS/LIBOR Spreads
- Executing & Managing Swaps Post-Crisis

Topic 2: Bootstrapping Zero-Coupon Swap Curves

- Types of Swap Curve
- Bootstrapping in a Multi-Curve Environment
- Nonpar-Priced Instruments
- Bootstrapping Using a Swap Curve & OIS Curve
- Bootstrapping Using a Swap Curve & OIS Curve: Example

Swaps – Cash Flows & Structures

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the day count conventions used in the swaps market, including 30/360, Actual/360, Actual/Actual, and Actual/365, and payment date conventions such as following business day and modified following
- Recall how principal may be exchanged and collateralized and marked to the market under a cross-currency swap
- Recognize the relevance of upfront amounts and the treatment of negative interest rates

Tutorial Overview

This tutorial looks at how payments under an interest rate swap are adjusted for day count conventions and business days. The exchange and collateralization of principal under a cross-currency swap, upfront payments, and the treatment of negative interest rates are also dealt with in detail.

Prerequisite Knowledge

Swaps – Key Valuation Concepts

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Payment Dates & Day Count Conventions

- Swap Payment Dates
- Swap Payment Dates: Weekends & Holidays
- Day Count Conventions
- Floating Payment Day Count Conventions
- Fair Value Floating Payments: Estimation
- Calculation of Swap Cash Flows: Example

Topic 2: Swap Principal

- Notional Principal
- Actual Principal
- Collateralization of Principal
- Scenario
- Mark-to-Market Swaps
- Basis Adjustments

Topic 3: Upfront Amounts & Negative Interest Rates

- Upfront Amounts
- Negative Interest Rates

Swaps – Clearing

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the key role played by central clearing counterparties (CCPs) in clearing swap trades
- Identify the techniques used to reduce the risk of clearing member shortfalls, including margining and the default waterfall
- Recognize the main methods of reducing counterparty credit risk such as trade netting and compression and position limits

Tutorial Overview

Central clearing of swaps transactions is designed to standardize certain swaps, promote transparency, and allow market participants to mitigate their counterparty credit risk to dealers. This tutorial looks at the role of the CCP and the techniques used to reduce address the default risk of clearing members such as margining and the default waterfall.

Prerequisite Knowledge

Swaps – Impact of the Financial Crisis

Tutorial Level: Advanced

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Central Clearing Counterparties (CCPs)

- What is a Central Clearing Counterparty(CCP)?
- Selection of Clearing Members
- Clearing for Nonclearing Members

Topic 2: Margining & The Default Waterfall

- Margining
- Default Waterfall

Topic 3: Reducing Credit Risks With Clearing

- Prevention of Cherry Picking
- Interoperability
- Imposition of Clearing
- Trade Netting & Compression
- Position Limits
- Customer Protection
- Impact of Mandatory Clearing

Swaps – Credit Support Annex (CSAs) & Collateral

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define what a CSA is and how it mitigates counterparty credit risks
- Recognize how CSAs have been standardized by ISDA through the SCSA
- Recall various regulatory initiatives in the area of swaps clearing and collateralization

Tutorial Overview

This tutorial looks at how swap counterparties mitigate credit risk through the CSA and its standardized version, the SCSA. Other regulatory initiatives in the area of clearing and collateralization of swaps are also covered in detail.

Prerequisite Knowledge

Swaps – Overnight Index Swaps (OIS)

Tutorial Level: Advanced

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Credit Support Annex (CSA)

- What Is a CSA?
- Main Sections of a CSA

Topic 2: Standardized CSA (SCSA)

- What Is the Standardized CSA?
- Legacy CSA vs. Standardized CSA
- SCSA: Related Documentation
- SCSA: Implied Swap Adjustment Methodology
- Collateral Choice Optionality: Example

Topic 3: Swaps Clearing & Collateralization

- Clearing of Swaps
- Credit Value Adjustments (CVAs)
- Modeling & Maintaining a Multiplicity of Curves
- Clearing: Other Regulatory Initiatives
- Clearing: Documentation
- ISDA Recommendations for Collateral

Swaps – Currency Swaps

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the main structures used with currency swaps, including the initial exchange of principal amount in different currencies and their re-exchange at maturity
- Recognize how swap principal is marked to market as FX rates change
- Identify the key applications of currency swaps, including the conversion of borrowing amounts, foreign currency revenues, and returns on synthetic assets to the desired currency

Tutorial Overview

A currency swap is a transaction that involves the exchange of principal and interest payments based on two different currencies. This tutorial looks at the main structures used with currency swaps and provides realistic examples of the uses of these instruments.

Prerequisite Knowledge

Swaps – Basis Swaps

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Currency Swap Structures

- What Is a Currency Swap?
- Currency Swaps: Features
- Currency Swaps & CIP

Topic 2: Currency Swap Pricing

- Valuing a Cross-Currency Basis Swap
- Valuing a Currency Swap: Example

Topic 3: Currency Swap Applications

- Currency Swap Applications
- Converting Foreign Borrowing to Domestic Currency
- Domestic Borrowing to Fund Nondomestic Currency Activities
- Creating Synthetic Assets in a Chosen Currency
- Currency Swap: Scenario

Swaps – Documentation

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the importance of the ISDA Master agreement in standardizing swaps (and other derivatives) transactions
- Identify the key elements of the ISDA Schedule, confirmations, and definitions
- Recall how credit support annexes (CSAs) are used to mitigate or eliminate the mutual potential for counterparty risk in derivatives transactions
- Identify the key documentation required for cleared swaps

Tutorial Overview

Documentation is crucial to maintaining the efficiency of the swaps market and reducing counterparty credit risk. This tutorial looks at the importance of the ISDA Master Agreement and other documentation relevant to cleared and noncleared swaps.

Prerequisite Knowledge

Swaps – Clearing

Tutorial Level: Advanced

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: ISDA Master Agreement

- What is the ISDA Master Agreement?
- 2002 ISDA Master Agreement
- Potential Credit Losses Without ISDAs & CCPs
- Potential Credit Losses Without ISDAs & CCPs: Example
- Netting

Topic 2: ISDA Schedule, Confirmations, & Definitions

- ISDA Schedule
- Confirmations
- ISDA Definitions

Topic 3: Credit Support Documentation

- Credit Support Annex (CSA) For Initial & Variation Margin
- CSAs for Noncleared Swaps

Topic 4: Documentation of Cleared Swaps

- Documentation of Cleared Swaps

Swaps – Exotic Structures

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define the main types of exotic swap structure, including swaps with a variable principal, swaps with option-like features, inflation swaps, zero-coupon swaps, and legacy products
- Recognize some of the legacy exotic swap structures, such as diff swaps

Tutorial Overview

This tutorial looks at the key variants of generic interest rate swaps, covering swap structures which have a variable notional principal or embedded optionality, inflation and zero-coupons, as well as legacy products which are no longer traded.

Prerequisite Knowledge

Swaps – Pricing

Tutorial Level: Advanced

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Swaps With a Variable Notional Principal

- Swaps with a Variable Notional Principal
- Amortizing Swap: Example
- Swaps with a Variable Notional Principal: Fair Fixed Coupon
- Swaps with a Variable Notional Principal: Fair Fixed Coupon in Excel

Topic 2: Zero-Coupon & Inflation Swaps

- Zero-Coupon Swaps
- Inflation Swaps

Topic 3: Swaps with Optionality

- Swaps with Optionality
- Cancelable (Callable) Swap
- Cancelable (Callable) Swap: Cost
- Barrier Swaps
- Barrier Swaps: Path Dependency

Topic 4: Other Exotic Structures

- Funded Structured Notes
- Legacy Products

Swaps – Impact of the Financial Crisis

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize how counterparty credit risk became a major issue during the financial crisis and led to a shutdown in the interbank market
- Identify the post-crisis regulatory changes that have impacted the risks and economics of swaps
- Recall how swaps are cleared and collateralized
- Recognize the move away from LIBOR discounting and changes to LIBOR

Tutorial Overview

The purpose of this tutorial is to examine the changes to the swaps market that resulted from the financial crisis of 2007-8, in particular, the changes to the way swaps are cleared and collateralized like other derivatives and the current state of play in the LIBOR interbank market.

Prerequisite Knowledge

Swaps – Applications

Tutorial Level: Advanced

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Swaps Market Pre-Crisis

- Swaps Marketplace
- LIBOR in the Pre-Crisis Market
- LIBOR & the Financial Crisis
- Counterparty Credit Risk
- Counterparty Credit Risk: Acceptable Credits
- Single Curve Framework

Topic 2: Swaps Market Post-Crisis

- Aftermath of the Crisis
- Regulatory Changes to the Swaps Market
- Impact of Swap Standardization
- Multiple Curves & Differential Discounting
- LIBOR- & OIS-Based Discounting
- LIBOR- & OIS-Based Discounting: Example
- Negative Rates & ISDA
- Negative Swap Spreads

Swaps – Indices & Curves

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize how a swap curve represents market swap rates for each maturity
- Recall how the credit risk reflected by the swap curve can be compared to that of the treasury yield curve to determine a swap spread
- Identify the process by which a swap zero curve can be derived from a swap curve using interbank deposit and futures rates and the bootstrapping methodology

Tutorial Overview

This tutorial looks at how a swap curve represents fixed coupon rates of different maturities existing in the market, which when applied to newly initiated fixed-for-floating swaps generate a swap NPV of zero. The tutorial also shows how the bootstrap method is used to derive zero-coupon interest rates from the swap par rates.

Prerequisite Knowledge

Swaps – Cash Flows & Structures

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Swap Curves

- What Is a Swap Curve?
- Swap Curve as a Par Yield Curve
- Swap Curve & Treasury Yield Curve
- Swap Spreads
- Swap Spreads: Variability
- Swap Spreads: Quotation
- Swap Zero Curve

Topic 2: Sourcing Zero Curves for Swaps

- Sources of Zero Curve Rates
- Interbank Deposit Rates
- Interbank Deposit Futures Prices
- Interbank Deposit Futures Prices: Example
- Par Swap Rates
- Bootstrapping the Swap Zero Curve: Example
- Overnight Index Swap (OIS) Zero Curve

Swaps – Key Valuation Concepts

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize that a fair value swap is one where the two sets of cash flows produce an overall swap NPV of zero.
- Identify the role of the forward curve and discounting curve in determining the fair fixed rate on a swap
- Recognize the key sources of forward rates, including interbank deposit rates, Eurodollar futures, swap rates, and the discount curve

Tutorial Overview

This tutorial looks at how the forward index curve and discounting curve are used to determine the fair value of a swap. It also examines the key sources of forward rates used to build the forward curve.

Prerequisite Knowledge

Swaps – Applications

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: Fair Valuation of Swaps

- Fixed & Floating Cash Flows on a Swap
- Fair Value Swap
- Initial NPVs of Swaps Post Dodd-Frank
- Concepts of Return
- Cleared Swaps

Topic 2: Swap Valuation Curves

- Forward Index & Discounting Curves
- Potential Exposure
- Potential Exposure: Example
- Using Forward Rate Information

Topic 3: Forward Rates & Swap Valuation

- Sources of Forward Rates

Swaps – Overnight Index Swaps (OIS)

Tutorial Description

Objectives

On completion of this tutorial you will be able to:

- Identify the key features of OIS transactions including the indices used, how cash flows are settled, and typical maturities and coupon structures
- Recall how the OIS market has boomed in the post-crisis world as interbank deposit transactions have been concentrated into the shortest tenors
- Identify the key steps in building an OIS zero curve
- Recognize how interest rate risk can be managed using OIS

Tutorial Overview

An OIS is an interest rate swap whose floating leg is tied to an overnight rate. The tutorial describes the key features of these instruments and the development of the market since the global financial crisis.

Prerequisite Knowledge

Swaps – Indices & Curves

Tutorial Level: Advanced

Tutorial Duration: 45 minutes

Tutorial Outline

Topic 1: OIS Features

- What Is an OIS Transaction?
- Calculation of Settlement Amounts on an OIS
- Calculation of Settlement Amounts: Example
- OIS & The Global Financial Crisis
- Growth of the OIS Market Post-Crisis
- Building an OIS Zero Curve

Topic 2: Hedging Using an OIS

- Hedging Interest Rate Risk With OIS
- Hedging Interest Rate Risk With OIS: Example
- LIBOR-OIS Spreads & Financial Sector Stress

Swaps – Pricing

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Identify the key changes to the market infrastructure for swaps that have impacted the pricing of swaps products
- Recognize how exchange-traded swap futures prices can be used to determine the fair rate on a swap

Tutorial Overview

This tutorial looks at how regulatory-driven changes to the swap market infrastructure – such as centralized clearing and standardization of swap products – have affected the pricing of swaps. The use of swap futures to build a swap zero curve is also examined in detail.

Prerequisite Knowledge

Swaps – Indices & Curves

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Pricing & Standardization of Swap Products

- Swap Pricing: Prices & Rates
- Swap Pricing: Change in Swap Market Infrastructure
- Standardization of Swaps
- Exchange-Traded Swap Futures
- Swap Futures & Par Swap Data
- Swap Futures & Par Swap Rate

Topic 2: Finding a Fair Swap Rate

- Valuing an Existing Swap
- Determining the Fair Coupon on a Par Swap
- Determining the Fair Coupon on an Existing (Nonpar) Swap
- Determining the Swap Rate on a Nonpar Swap: Example

Swaps – Sensitivities & Risk Management

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize how the fixed and floating side of a swap have separate interest rate sensitivities
- Measure interest rate sensitivity through dollar duration, DV01, and convexity
- Identify interest rate sensitivities for index and discounting curves

Tutorial Overview

The fixed and floating side of an interest rate swap have separate sensitivities to movements in interest rates. This tutorial looks at key sensitivity measures such as dollar duration and DV01 and also looks at the sensitivities of index and discounting curves to rate movements.

Prerequisite Knowledge

Swaps – Bootstrapping Zero Curves

Tutorial Level: Advanced

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Interest Rate Sensitivities of Swap Components

- Measuring the Interest Rate Sensitivities of Swap Components
- Fixed Side Sensitivity
- Floating Side Sensitivity
- Heuristic Techniques
- Convexity
- Swap DV01 Calculations

Topic 2: Sensitivities to Curve Movements

- Sensitivities to Index Curve Movements
- Sensitivities to Index Curve Movements: Example
- Sensitivities to Discounting & Index Curve Movements Compared

Trade Finance – An Introduction

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Outline the main risks associated with international trade
- Describe the main methods of payment used to settle cross-border trades
- List and describe the main commercial documents used in international trade
- Explain the role of banks in both facilitating payments and providing funding for international trade

Tutorial Overview

Many of the products we buy and consume on a daily basis are traded internationally. In some cases, these items will have been transported half-way across the world before arriving in our shopping baskets. However, cross-border transactions present a number of potential difficulties for the parties – importers (buyers) and exporters (sellers) – involved. In addition to dealing with the practical problems arising from the movement of, and payment for, goods from one country to another, importers and exporters are simultaneously subject to numerous risks related to differing legislation, customs, and practices in these countries.

This tutorial provides an overview of international trade finance, including the main risks associated with cross-border trade, the various payment methods used by importers/exporters, the key commercial documents, and the role of banks in international trade.

Prerequisite Knowledge

Financial Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 75 mins

Tutorial Outline

Topic 1: Risks of International Trade

- Difficulties of International Trade
- Key Risks
 - Foreign Exchange Risk
 - Transaction Exposure
 - Translation Exposure
 - Economic Exposure
 - Country Risk
 - Buyer Risk
 - Product Risk
 - Transport Risk
 - Legal Risk

Topic 2: Methods of Payment

- Clean vs. Documentary Payments
- Draft/Bills of Exchange
- Methods of Payment
 - Most vs. Least Risky
 - Open Account Trading
 - Documentary Collections
 - Documentary Credits (Letters of Credit)
 - Payment in Advance
 - Countertrade

Topic 3: Key Commercial Documents

- The Need for Documentation
- Key Documents
 - Commercial Invoice
 - Packing List
 - Certificate of Origin
 - Customs Invoice
 - Consular Invoice
 - Transport Documents
 - Bill of Lading
 - Air Waybill
 - Rail Waybill
 - Forwarding Agent's Certificate of Receipts (FCR)
 - Insurance Documents

Topic 4: Role of Banks in Trade Finance

- Foreign Branches & Correspondent Banking
- Payment Services
 - Open Account Trading/Trade Services Utility (TSU)
 - Documentary Credits and Collections
 - Check Payments
 - Bills of Exchange
 - Bank Drafts
 - Card Payments
 - Trade-Related Guarantees & Other Undertakings
- Funding Facilities
 - Pre-Shipping Finance
 - Buyer Credits
 - Supplier Credits
 - Factoring & Forfaiting
 - Post-Shipping Finance
 - Ancillary Services

Trade Finance Security

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Describe the differences between various guarantees/bonds that are offered by banks for international trade transactions
- Outline the purpose of standby letters of credit and demand guarantees
- Explain the role of export credit agencies (ECAs) in the provision of security for trade finance transactions

Tutorial Overview

International trade transactions can give rise to significant risks and complexities, including non-payment risk and cash flow uncertainties. In large-scale projects, these risks are often increased. This makes it necessary to consider instruments that can better secure transactions.

Trade finance security is the collective term for risk mitigation instruments which are particularly suited to large-scale international projects. This tutorial focuses on bank guarantees or bonds, standby letters of credit, and demand guarantees, which are the most common risk mitigation tools in this area. These instruments can help to reduce cash flow uncertainty, non-payment risk, and non-performance risk.

Prerequisite Knowledge: Export Finance

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Bank Guarantees/Bonds

- Definition of Bank Guarantees/Bonds
- Parties Involved
 - Applicant
 - Beneficiary
 - Guarantor
- Surety Guarantees versus Demand Guarantees/Bonds
- Direct versus Indirect Guarantees
- Types of Bank Guarantee/Bond
 - Performance Guarantees/Bonds
 - Bid Bonds/Tender Guarantees
 - Advance Payment Guarantees/Bonds
 - Retention Money and Maintenance/Warranty Guarantees
 - Payment Guarantees
- Cost and Collateral
- Benefits & Drawbacks
 - Beneficiary's Perspective
 - Applicant's Perspective
- Bank Guarantees/Bonds versus Other Trade Finance Security Instruments
 - Guarantees/Bonds versus Letters of Credit
 - Guarantee/Bonds versus Export Credit Insurance

Topic 2: Demand Guarantees & Standby Letters of Credit

- Demand Guarantees
 - Definition
 - Benefits & Drawbacks
 - Bond Insurance
- Standby Letters of Credit

Topic 3: Role of Export Credit Agencies in Trade Finance Security

- ECAs & Bank Guarantees/Bonds
- Direct Bond Issuance to the Importer
- Bond Issuance to the Guarantor (Exporter's Bank)

UK Cybercrime

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize cybercrime and how it threatens the financial services industry
- Demonstrate how IT, physical and socially engineered methods are used to commit or facilitate cybercrime
- List the major types of fraud used by cyber criminals
- Illustrate the key security methods used to minimize the risk of cyberattacks and scams

Tutorial Overview

This tutorial aims to help financial services staff at all levels manage cybercrime risks. It is designed to give an understanding of personal cybercrime responsibilities as well as the risks to employers.

The tutorial discusses what is meant by cybercrime and the relationship between cybercrime and other types of financial crime, such as fraud.

The information is pitched so that the tutorial is relevant to those with no experience of the UK cybercrime issues, although there is sufficient detail to make the tutorial useful to more senior managers as well.

Prerequisite Knowledge

No prior knowledge is assumed

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

Tutorial Outline

Topic One: Cybercrime

- Overview of Cybercrime
- Costs of Cybercrime
 - Effects on the Financial Services Industry
- Aims of Cybercrime
- Risks Posed to Consumers
- Risks Posed to Businesses

- Business-Targeted Scams
- Gambling Scams
- Identity Frauds
- Investment Frauds
- Money-Making Scams
- Technological Scams

Topic 2: Cybercrime & Insider Threats

- Types of Cybercrime
- Insider Threats
- Phishing, Vishing & Social Engineering
- Web-Based Attacks
- Zero-Day Vulnerabilities

Topic 4: Systems & Controls

- Changing Behaviors
 - Social Media Safe
 - How to be Social Media Safe
 - E-mail Compliance
 - Computer Hardware & Software Safety
 - Password Security
 - USB Security
 - Remote Working Compliance
 - Escalation Breaches, Events and Suspicions
 - Deploy Safe Surfing Techniques

Topic 3: Fraud

- Fraud Committed by Cyber Criminals
- Types of Fraud
 - Accomplice / Illicit Behavior Scams
 - Bogus Products & Services

Working Capital Management

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Define and calculate working capital
- Identify the components of working capital
- Define and calculate the cash conversion cycle
- List strategies for effective working capital management

Tutorial Overview

Working capital is the cash available to fund a company's day-to-day operations. As such, effective working capital management is essential to ensure that a company is able to pay its debts and remain operational. Effective working capital management requires an understanding of the cash conversion cycle and familiarity with strategies for managing this cycle. This tutorial provides a high-level overview of working capital and highlights strategies for effective working capital management.

Prerequisite Knowledge

Accounting – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

Tutorial Outline

Topic 1: Working Capital Overview

- What Is Working Capital?
- Case Study
- Working Capital Components
- Operating Cycle
- Estimating the Working Capital Cycle
- Working Capital Management

Topic 2: Measuring Working Capital

- Overview
- Current Assets
- Current Liabilities
- Calculating Working Capital
- Current Ratio
- Quick Ratio

Topic 3: Cash Conversion Cycle

- Overview
- Receivables Days
- Inventory Days
- Payables Days
- Calculating the Cash Conversion Cycle
- Scenario: Cash Conversion Cycle
- Scenario: Solution

Topic 4: Working Capital Management

- Overview
- Accounts Payable
- Accounts Receivable
- Inventory

Zero-Coupon Securities

Tutorial Description

Objectives

On completion of this tutorial, you will be able to:

- Recognize the key features of zero-coupon bonds and how they are priced
- Identify the different issuers and investors in zero-coupon bonds and the benefits and risks they face with these securities
- List the key variants of zero-coupon bonds

Tutorial Overview

Zero-coupon bonds are securities that are issued at a deep discount to par and pay no interim interest before maturity. This tutorial looks at the key features of these instruments, how they are priced and traded, the main issuers and investors in these instruments, and their key variants.

Prerequisite Knowledge

Yield Curves – An Introduction

Tutorial Level: Intermediate

Duration: 45 minutes

Tutorial Outline

Topic 1: Overview of Zero-Coupon Securities

- What Is a Zero-Coupon Bond?
- Decomposing Coupon Bonds into Zeros
- Decomposing Coupon Bonds into Zeros: Example
- Pricing a Zero-Coupon Bond
- Benefits of Zero-Coupon Bonds for Issuers & Investors

Topic 2: Risks of Zero-Coupon Securities

- Interest Rate Risk
- Credit Risk
- Scenario: Investing in Zero-Coupon Bonds

Topic 3: Zero-Coupon Bond Issuers & Structures

- Zero-Coupon Government Bonds
- Zero-Coupon Government Bonds: US Market
- Zero-Coupon Government Bonds: Non-US Markets
- Corporate & Municipal Zero-Coupon Bonds
- Corporate & Municipal Zero-Coupon Bonds: Structures