

# Selected Tutorial Overviews

## HKICPA

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# Asset Allocation – An Introduction

## Tutorial Description

### Objectives

On completion of this tutorial, you will be able to

- List the different classes and subclasses of asset
- Recognize the importance of asset allocation in creating a well-diversified portfolio
- Identify the different approaches to asset allocation

### Tutorial Overview

Asset allocation is the process of dividing an investment portfolio among different categories of asset, such as stocks, bonds, and cash.

This tutorial looks at the importance of asset allocation in meeting investor risk tolerance and return objectives. Different asset classes and subclasses are examined. The key role played by portfolio diversification and different asset allocation approaches are also discussed.

### Prerequisite Knowledge

Asset Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 50 mins

## Tutorial Outline

### Topic 1: Basics of Asset Allocation

- Definition of Asset Allocation
- Importance of Asset Allocation
- Investor Preferences
- Asset Classes

### Topic 2: Portfolio Diversification

- The Diversification Effect
- Portfolio Volatility
- Portfolio Volatility & Correlation
- What is a Well-Diversified Portfolio?
- The Efficient Frontier

### Topic 3: Asset Allocation Strategies

- Types of Asset Allocation
  - Strategic Asset Allocation
  - Dynamic Asset Allocation
  - Tactical Asset Allocation

# 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

Primer – Asset Classes

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 – Capital

## Tutorial Description

### Objectives

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

- Describe the key elements of the amended capital adequacy regime under Basel III
- Define the concept of "qualifying capital" and understand the importance of common equity capital (CET1)
- Explain why additional capital buffers (capital conservation buffer and countercyclical capital buffer) were needed and what these buffers are
- Detail the timelines for full implementation of the Basel III capital requirements and summarize the key implementation issues

### Tutorial Overview

The financial crisis highlighted that both the quality and quantity of bank capital was insufficient to meet the losses that occurred. The size and nature of the losses, and the need to enlist government support to prevent bank failures, quickly galvanized the Basel Committee on Banking Supervision (BCBS) and the regulatory community to rethink the capital adequacy rules and minimum ratios (among other issues).

This tutorial describes the changes to the capital requirements under Basel III, including the tighter definition of qualifying capital and increased focus on CET1, the new capital buffers, and the revised minimum ratios. The impact of these changes on banks' capital structures are explored, as are the implementation issues during the transition period.

### Prerequisite Knowledge

Prior to studying this tutorial, you should have a broad understanding of the changes made by Basel III as described in the following tutorial:

#### Basel III – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

### Tutorial Outline:

#### Topic 1: Capital Adequacy under Basel III

- Capital Adequacy Ratio (CAR)
- Qualifying Capital
- Loss-Absorbing Capital
- Going Concern versus Gone Concern Capital
- Changes to the Tiering Structure

#### Topic 2: Qualifying Capital

- Tiering in Basel III
  - Tier 1 Capital: Common Equity Capital (CET1)
  - Tier 1 Capital: Additional Tier 1 (AT1)
  - Tier 2 Capital
  - Deductions

#### Topic 3: Capital Buffers & Revised Capital Ratios

- Procyclicality & Capital Buffers
- Capital Conservation Buffer
- Countercyclical Capital Buffer
- Revised Capital Ratios

#### Topic 4: Implementation of Capital Requirements

- Transitional Arrangements
- Implementation Issues
  - Capital Replenishment
  - Deleveraging
  - Economic Weaknesses
  - Consistency
  - Will Basel III Make A Difference?

# Bond Prices & Yields

## Tutorial Description

### Objectives

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

- Calculate the price of a bond given the yield to maturity of the bond
- Calculate the yield to maturity of a bond given the price of the bond

### Tutorial Overview

Any fundamental understanding of how the capital markets perform their role requires a detailed knowledge of bond structure and pricing. The bond markets are also the engine that powers the interest rate swap market. New issue bonds and secondary market bond repackaging are powerful forces in the swap markets. The combination of more flexible bond markets and liquid interest rate derivatives markets has transformed the way debt finance is raised for many borrowers. The differences between bond and swap pricing can lead to the creation of hybrid instruments and structured transactions that create financing and investment vehicles for astute market participants. As a result, it is vitally important that you become familiar with the bond pricing and yield to maturity concepts explained in this tutorial.

### Prerequisite Knowledge

Interest Calculations

Time Value of Money

NPV & IRR

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Bond Pricing

- What is a Bond?
- Fair Price of a Bond
- Accrued Interest
- Clean & Dirty Prices
- Other Bond-Like Instruments

### Topic 2: Bond Yields

- Types of Bond Yields
- Yield to Maturity
- Bond Rates of Return
- Interest Rate Risk
- Price-Yield Curves

# Calculus

## Tutorial Description

### Objectives

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

- Determine the derivatives of various functions by applying different calculation rules
- Apply some basic rules to calculate the integral of a function and understand that integration is the reverse of differentiation

### Tutorial Overview

An important topic in finance and economics is the study of the speed of change of different economic quantities over time, such as GDP, unemployment, investment, and so on. Further, risk management instruments rely heavily on the speed of change of the underlying assets' values and prices. The mathematical concept that deals with these issues is the rate of change, otherwise known as the derivative.

This tutorial introduces the concept of differentiation and its counterpart, integration. Simple economic applications of the two concepts are also described.

### Prerequisite Knowledge

No prior knowledge is assumed for this tutorial.

Tutorial Level: Introductory

Tutorial Duration: 90 mins

## Tutorial Outline

### Topic 1: Integration

- What is Integration?
- Rules of Integration
- Definite Integration
- Calculating the Definite Integral
- Definite Integrals – Applications
  - Summation of a Continuous Flow
  - Discounting
- Properties of Definite Integrals
- Improper Integrals
- Integration of Composite Functions
- Integration of Composite Functions – Integration by Parts
- Integration of Composite Functions – Integration by Substitution

### Topic 2: Differentiation

- What is Differentiation?
  - Differentiation of Linear Functions
  - Differentiation of non-Linear Functions
- Formula
- Increasing & Decreasing Functions
- Minimum & Maximum Point of Functions
- Differentiation of Non-Linear Functions
- Calculating Derivatives
- Rules of Differentiation
  - Sum Rule
  - Difference Rule
  - Products & Quotients of Functions
- Rules of Differentiation of Composite Functions
- Differentiation of Exponential Functions
- Differentiation of Logarithmic Functions
- Economic Applications of Differentiation
  - Revenue Functions
  - Cost Functions
  - Profit Maximization
  - Production Function

# Cash Management

## Tutorial Description

### Objectives

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

- Define 'cash' and explain why firms hold cash
- Describe the mechanisms firms use to disburse and collect cash
- Calculate the target cash balance
- List the major money market instruments and their features

### Tutorial Overview

It is essential to the profitability of a business that it manages its cash efficiently and cost-effectively. This tutorial explains the process of cash collection and disbursement and shows how a firm can determine the cash balance that will minimize opportunity costs and trading costs. The use of money market instruments in cash management is also explored.

### Prerequisite Knowledge

Corporate Finance - An Introduction

Tutorial Level: Introductory

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Cash Collection and Disbursement

- Collection Process
- Disbursement Process

### Topic 2: Cash Management

- Transactions
- Compensating Balances

### Topic 3: Determining the Adequate Cash Balance

- Baumol Model
- Miller-Orr Model

### Topic 4: Cash Management and the Money Market

- Treasury Bills
- Certificates of Deposit (CDs)
- Commercial Paper (CP)
- Repurchase Agreements (Repos)
- Money Market Funds

# Commodities – An Introduction

## Tutorial Description

### Objectives

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

- Identify the commodities traded on global commodity markets and the key features of these commodities
- Recognize the role of the key participants in the commodity markets
- List the leading commodity exchanges worldwide and the products they trade

### Tutorial Overview

This tutorial takes a detailed look at the different types of commodity and the exchanges where they are traded. It identifies the main participants in the commodity markets and explains the fundamentals of commodities trading, including exchange trading and OTC trading as well as the trading of physical commodities.

### Prerequisite Knowledge

Financial Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 75 minutes

## Tutorial Outline

### Topic 1: Types of Commodity

- Commodities & Commodities Trading
- Types of Commodity
  - Agricultural Commodities
    - Grains & Oilseeds
    - Softs
    - Livestock
    - Dairy
  - Energy Commodities
    - Crude Oil
    - Natural Gas
    - Coal
    - Electricity
  - Metal Commodities
    - Precious Metals
    - Non-Ferrous Metals
    - Ferrous Metals
  - Emissions Trading
  - Other Commodities

### Topic 2: Market Participants

- Producers
- Consumers
- Commodity Trading Firms (CTFs)
- Traders/Investors
  - Hedging
  - Speculation
  - Arbitrage

### Topic 3: Commodities Trading

- Methods of Commodities Trading
  - OTC vs. Exchange-Trading
- Commodity Exchanges
  - CME Group
  - Intercontinental Exchange (ICE)
  - Shanghai Futures Exchange (SHFE)
  - Dalian Commodity Exchange (DCE)
  - European Energy Exchange (EEX)

- London Bullion Market
- London Metal Exchange (LME)
- BM&FBOVESPA
- Tokyo Commodity Exchange (TOCOM)
- Other Exchanges
- Standardization of Contracts
- Physical Commodity Trading

# 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



# Convertibles – An Introduction

## Tutorial Description

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

- Define the key benefits and costs/risks of convertibles for issuers and investors, and list the key types of convertible bond available
- Identify the key features of convertible securities
- Define the main mathematical terms used with convertibles

## Tutorial Overview

Convertibles are hybrid securities that typically pay a fixed coupon but can also be converted into the common stock of the issuer. This tutorial provides a broad overview of the key features and cost-benefits of convertible bonds and their main-sub-types, and outlines the main mathematical terminology used with such instruments.

## Prerequisite Knowledge

Bond Markets – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

## Tutorial Outline

Topic 1: Overview of Convertibles

- What is a Convertible?
- Issuer Motivations
- Investor Motivations
- Convertibles: Disadvantages
- Types of Convertible

Topic 2: Features of Convertibles

- Overview of Convertible Bond Features
- Issuer Call Option
- Call Protection
- Investor Put Option
- Accrued Interest
- Dilution & Stock Splits

Topic 3: Mathematics of Convertibles

- Mathematical Terms Associated with Convertibles
- Mathematical Terms: Formulas
- Scenario: Mathematics of Convertibles

# 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 – Acquisition Analysis

## Tutorial Description

### Objectives

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

- Outline the reasons why a company may want to engage in an acquisition
- Quantify an acquisition using a free cash flow (FCF) approach
- Quantify an acquisition using an economic profit approach, and recognize how both economic profit and FCF yield the same answer with respect to acquisition valuation

The most important element in any acquisition process is the expected synergies to be realized through the acquisition. The more synergies that can be reasonably expected, the higher the price an acquirer will be willing to pay for the company to be acquired.

This tutorial looks at the importance of synergy in determining the ultimate value of an acquisition. It describes how acquisitions can be quantified and valued using a free cash flow or an economic profit approach. In both cases, synergy is discussed as the primary driver of value in the analysis of acquisition candidates, and the need to quantify the synergies properly is addressed.

### Prerequisite Knowledge

#### Mergers & Acquisitions

Corporate Finance – Measuring Business Performance – Free Cash Flow

Corporate Finance – Measuring Business Performance – Economic Profit

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Fundamentals of Acquisition

- Reasons to Acquire Companies
- Reasons to not Acquire Companies
- Historical Perspective on Acquisitions
  - 1960s-1970s
  - 1980s
  - Recent Years

### Topic 2: Quantifying the Value of an Acquisition – FCF Approach

- FCF Acquisition Analysis – Basic Tasks
- FCF Acquisition Analysis
- FCF Acquisition Analysis – Alternative View
- Synergy Quantification
- The Premium Price
- Acquisition Analysis
  - Step 1: Analysis of Value Received
  - Analysis of Value Received – Example
  - Step 2: Analysis of Purchase Price
  - Price Parameters
  - Impact of Purchase Price on Free Cash Flow

### Topic 3: Quantifying the Value of an Acquisition – Economic Profit Approach

- FCF or Economic Profit?
  - Acquisition Analysis – Economic Profit Example
  - Impact on Purchase Price on Economic Profit
- Conclusion

# Corporate Finance – Capital Budgeting

## Tutorial Description

### Objectives

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

- Use a free cash flow (FCF) analysis to quantify a capital budgeting opportunity
- Use an economic profit approach to quantify a capital budgeting opportunity, and outline the similarities and differences between this approach and the FCF approach
- Calculate the terminal value of a project using two simplified quantitative approaches and a more sophisticated approach
- Describe the various qualitative issues to be addressed when conducting a capital budgeting analysis, and adopt an approach for dealing with 'strategic' investments

### Tutorial Overview

One of the most important decisions a company can make is where to invest its scarce capital resources in order to maximize shareholder value. These capital budgeting decisions need to be supported by rigorous analyses that have a firm economic underpinning.

The best way to quantify the costs and benefits of a capital budgeting opportunity is to use either a free cash flow or economic profit approach. The advantage of using these measures is that they both consider the economic flows/cash flows (operating flows and investment flows) associated with capital budgeting, and also take into account the return on investment that is expected by the capital contributors of a company.

This tutorial will provide you with the quantitative tools needed to properly evaluate capital budgeting opportunities for the purpose of maximizing the value of a firm.

### Prerequisite Knowledge

Corporate Finance – Measuring Business Performance – Free Cash Flow

Corporate Finance – Measuring Business Performance – Economic Profit

NPV & IRR

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Free Cash Flow Approach to Capital Budgeting

- Using FCF to Quantify a Capital Budgeting Opportunity
  - Using FCF for Capital Budgeting – Positive NPV
  - Using FCF for Capital Budgeting – Zero NPV
  - Using FCF for Capital Budgeting – Negative NPV

### Topic 2: Economic Profit Approach to Capital Budgeting

- Using Economic Profit to Quantify a Capital Budgeting Opportunity
  - Using Economic Profit for Capital Budgeting – Positive NPV
  - Using Economic Profit for Capital Budgeting – Zero NPV
  - Using Economic Profit for Capital Budgeting – Negative NPV
- Economic Profit Vs FCF – Conclusion

### Topic 3: Qualitative Issues & Strategic Investments

- Qualitative Issues Surrounding Capital Budgeting Decisions
- Strategic Investments
- Strategic Investments – Example

### Topic 4: Terminal Value

- Terminal Value – Calculation
  - Terminal Value – Perpetuity Method
  - Terminal Value – Constant Growth Method
- Terminal Value – Some Observations
- Terminal Value – A more Sophisticated Approach

# Corporate Finance – Measuring Business Performance (Economic Profit)

## Tutorial Description

### Objectives

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

- Describe the use of economic profit as an economically valid business performance measurement tool and how it can help view value creation within a company
- Recast the income and balance sheet statements in order to create a NOPAT statement that reflects the economic operating inflows and outflows and an invested capital statement that represents the Economic investment made by the capital contributors
- Compare the economic profit and FCF approaches in order to show the relevant differences between the two metrics

### Tutorial Overview

The ultimate goal of any business is the creation of value for the owners of that business, whether that business is privately held by one owner or is publicly held with a multitude of owners/shareholders. This tutorial will show in detail how economic profit can be used to make value-creating business decisions, and why it is a superior metric to more traditional business performance measures. A comparison will also be made between economic profit and free cash flow (FCF) to show the relevant differences between these two concepts.

### Prerequisite Knowledge

Prior to studying this tutorial, you should have a sound knowledge of the free cash flow (FCF) approach to measuring performance as described in the following tutorial:

Corporate Finance – Measuring Business Performance – Free Cash Flow

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Economic Profit

- What is Economic Profit
- Economic Profit – Alternative Formula
- Economic Profit – Calculation Example
- Interpretation of Economic Profit
- Relationship Between Market Value & Economic Profit
  - Positive Economic Profit Prospect
  - Negative Economic Profit Prospect
  - Zero Economic Profit Prospect
- Economic Profit vs Earnings
- Economic Profit vs Return on Assets
- Enhancing Economic Profit
  - Improve Return on Capital
  - Invest Capital Where Return on Capital > cost of Capital
  - Remove Capital Where Return on Capital < Cost of Capital
  - Minimize Cost of Capital

### Topic 2: Financial Statement Adjustments

- Financial Statement Adjustments – Overview
- Adjustments to NOPAT and Invested Capital Statements

### Topic 3: Comparison of Economic Profit & Free Cash Flow

- Free Cash Flow Analysis – Overview
  - Free Cash Flow Analysis – Positive FCF
  - Free Cash Flow Analysis – Negative FCF
- Free Cash Flow Analysis - Conclusion
- Economic Profit Analysis
- FCF Vs Economic Profit

- FCF Vs Economic Profit – Example 1
- FCF Vs Economic Profit – Example 2
- FCF Vs Economic Profit – Example 3
- FCF Vs Economic Profit – Example 4
- Economic Profit Analysis \_Conclusion
- Relationship between Market Value & Economic Value

# Corporate Finance – Measuring Business Performance (Free Cash Flow)

## Tutorial Description

### Objectives

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

- Address the shortcomings of net income and some of the more widely used cash flow metrics as measures of business performance
- Describe the use of free cash flow (FCF) as an economically valid business performance measurement tool and how it can help view value creation within a company
- Recast the income and balance sheet statements in order to create a NOPAT statement that reflects the economic operating inflows and outflows and an invested capital statement that represents the economic investment made by the capital contributors

### Tutorial Overview

The ultimate goal of any business is the creation of value for the owners of that business, whether that business is privately held by one owner or is publicly held with a multitude of owners/shareholders. Free cash flow (FCF) is an economically valid business performance measurement tool that can help view value creation within a company. This tutorial will provide you with a firm understanding of how to properly and effectively measure business performance using FCF, thereby providing you with tools to make better business decisions.

### Prerequisite Knowledge

Prior to studying this tutorial, you should have a basic knowledge of financial statements as described in the following tutorials:

Accounting – An Introduction  
Analysis of the Balance Sheet  
Analysis of the Income Statement  
Analysis of the Cash Flow Statement

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Overview of Performance Management

- Performance Metrics
- Shortcomings of Accounting-Based Performance Metrics
- Traditional Financial Management Framework
- Other Popular Performance Measures & Their Shortcomings

### Topic 2: Free Cash Flow

- Definition of Free Cash Flow
- Free Cash Flow – Details on the Calculation
- Invested Capital
- Relationship Between market Value & Free Cash Flow
- Relationship between Return on Investment and Cost of Capital
- Optimal Investment Horizon
  - Optimal Investment Horizon – Graphical Representation
  - Optimal Investment Horizon – Strategic Implication
- Enhancing Free Cash Flow Over the Long-Term
  - Improve NOPAT for a Given Instrument
  - Increase Investment Where  $ROI > Cost\ of\ Capital$
  - Decrease Investment Where  $ROI < Cost\ of\ Capital$

### Topic 3: Financial Statement Adjustments

- Financial Statement Adjustments – Overview
  - Bad Debt Accounting
  - Goodwill Impairment
  - Deferred Taxes

- Unusual Gain/ Loss
- Depreciation
- Research & Development (R&D)
- Deferred revenue
- Note on Adjustments



# Corporate Governance – An Introduction

## Tutorial Description

### Objectives

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

- Explain the importance of good corporate governance
- Outline the key issues in corporate governance

### Tutorial Overview

Corporate governance is a broad term to describe the rules, processes, and laws by which companies are directed and controlled for the benefit of company shareholders and other stakeholders. Good corporate governance contributes to sustainable economic development by enhancing the performance of companies and improving their access to outside sources of funds.

This tutorial describes the roles and responsibilities of company boards of directors (and their sub-committees) in promoting effective corporate governance. It also looks at some of the key issues, such as director remuneration and institutional investor engagement that are crucial to good corporate governance. Well-known examples of corporate governance failures are also highlighted.

### Prerequisite Knowledge

No prior knowledge is assumed for this tutorial.

Tutorial Level: Introductory

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Overview of Corporate Governance

- What is Corporate Governance?
- The Importance of Corporate Governance
  - Agency Theory
  - Stakeholder Theory
- Corporate Governance and Responsibilities of the Board of Directors
- Board of Roles
- Board Committees
- OECD Principles of Corporate Governance
- Corporate Governance Ratings
- Corporate Governance Failings

### Topic 2: Key Issues in Corporate Governance

- Key Issues in Corporate Governance
  - Director Remuneration
  - Disclosure, Transparency and Audit
  - Responsibilities of Institutional Shareholders
  - Ethical Behaviour in corporates
  - Corporate Governance and Company Performance

# Corporate Social Responsibility (CSR) – An Introduction

## Tutorial Description

### Objectives

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

- Define corporate social responsibility (CSR)
- List some of the business case factors behind the adoption of CSR
- Outline the elements of the GRI reporting guidelines
- Explain how CSR affects the banking industry in particular

### Tutorial Overview

CSR refers to those actions whereby business seeks to contribute to sustainable economic development. In its commitment to sustainability, a business recognizes that, in addition to serving its shareholders' interests in the pursuit of economic value, it must also understand the legitimate concerns of other stakeholders such as employees and the wider community.

Changing attitudes on the part of consumers and investors mean that CSR is no longer seen as an expensive luxury, but can in fact result in net savings for the business. This tutorial covers the fundamentals of corporate social responsibility, with particular focus on the banking industry.

### Prerequisite Knowledge

Corporate Governance – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Overview of CSR

- What is CSR?
- Shareholder versus Stakeholder
- The Evolution and Development of CSR
- Avoidance of CSR Failures

### Topic 2: Building a Business Case for CSR

- The "Triple Bottom Line"
- Costs and Benefits of CSR
- CSR and Risk Management
- Human Resources and Innovation
- The Case against CSR

### Topic 3: Sustainability Reporting

- Sustainability Reporting and The Global Reporting (GRI)
  - Reporting Principles and Guidance
  - Standard Disclosures
  - Protocols
  - Sector Supplements

### Topic 4: CSR and the Banking Industry

- CSR and the Banking Industry
- Risk Control and Transparency
- Consumer Protection and access to Banking Services
- G3 Guidelines – Financial Serve Sector
  - Product and Service Impact
  - Economic
  - Other

# Corporate Valuation – DCF Analysis

## Tutorial Description

### Objectives

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

- Identify the steps involved in a DCF valuation, and the advantages and disadvantages of the approach
- Calculate a firm's unlevered free cash flows
- Recognize the two methods used to calculate the terminal value of a company
- Calculate the weighted average capital of cost (WACC) used to present value free cash flows
- Calculate an implied share price for a company as part of a DCF valuation

### Tutorial Overview

Discounted cash flow (DCF) analysis is a valuation technique used by analysts to derive the intrinsic value of a company based on projected cash flows. This tutorial describes each of the key steps involved in a DCF analysis, demonstrating how analysts create a model that outputs an implied share price for a company by discounting its forecast future free cash flows.

### Prerequisite Knowledge

Corporate Valuation – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Basics of DCF Valuation

- Contextual Example
  - Microsoft's Acquisition of LinkedIn
- Steps Involved in DCF Valuation
- Importance of Forecasting
- Benefits & Drawbacks of DCF Valuation

### Topic 2: Forecasting Unlevered Free Cash Flows

- Free Cash Flow
  - Free Cash Flow to the Firm (FCFF)
  - Free Cash Flow to Equity (FCFE)
- Forecasting Free Cash Flows
  - Visible Period

### Topic 3: Calculating Terminal Value

- Methods of Calculating Terminal Value
- Perpetuity Growth Method
  - Example
- Terminal Multiple Method
  - Example

### Topic 4: Discounting the Cash Flows Using WACC

- Cost of Financing
  - Cost of Equity
  - Cost of Debt
- Calculating the Cost of Equity
  - Risk-Free Rate
  - Equity Market Risk Premium
  - Beta
  - Example
- Calculating the Cost of Debt
  - Example
- Calculating the WACC
  - Example
  - WACC Calculator

#### Topic 5: Calculating an Implied Share Price

- From Enterprise Value to Equity Value
- From Equity Value to an Implied Share Price
- Example

# Credit Management

## Tutorial Description

### Objectives

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

- Explain the fundamentals of credit management
- Calculate the relevant ratios to determine the viability of a proposal
- Outline the procedures involved in the credit control process

### Tutorial Overview

Firms that plan to offer credit terms to customers need to address the issues such as assessing credit worthiness, trade terms, credit period, collecting payments etc., before the credit decision can be made. These issues will be discussed in this tutorial.

### Prerequisite Knowledge

Corporate Finance — An Introduction

Tutorial Level: Introductory

Tutorial Duration: 65 mins

## Tutorial Outline

### Topic 1: Terms of Sale

- Early Settlement
- Payment Options

### Topic 2: Credit Agreements

- Bankers' Acceptance
- Commercial Draft
- Conditional Sales Contract
- Promissory Note
- Open Account

### Topic 3: Credit Analysis

- Sales Growth Profitability Ratios
- Liquidity Ratios
- Efficiency Ratios
- Solvency Ratios

### Topic 4: The Credit Decision

- Criteria for Making a Credit Decision
  - The Five Cs of Credit
  - CAMPARI
- Credit Limits

### Topic 5: Collection Policy

- Average Collection Period
- Late Payments

# 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

# Credit Risk Mitigation – An Introduction

## Tutorial Description

### Objectives

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

- Define the concept of credit risk mitigation (CRM) and recognize the benefits of taking mitigation
- Identify the main risks associated with taking mitigation

### Tutorial Overview

This tutorial introduces the concept of credit risk mitigation and outlines the two broad categories of mitigation – funded and unfunded. The benefits of mitigation are described, and its impact on expected loss is demonstrated. The tutorial also discusses the taking and management of mitigation, the different types of mitigant used, and the various risks associated with credit risk mitigation.

### Prerequisite Knowledge

Credit Risk Measurement – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

## Tutorial Outline

### Topic 1: Overview of Mitigation

- What is Credit Risk Mitigation?
- Benefits of Credit Risk Mitigation
  - Lower Expected Loss (EL)
  - Other Benefits
- Taking & Managing Credit Risk Mitigation
- Types of Credit Risk Mitigation
- Collateral (Security) Coverage
  - Calculation of Collateral Coverage
- Why Credit Risk Mitigation Does Not Eliminate Risk

### Topic 2: Risks of Mitigation

- Legal Risk
- Counterparty Risk
- Concentration Risk
- Liquidity Risk
- Market Price Risk
- Correlation Risk
- Operational Risk
- Costs

# Credit Risk Mitigation – Collateralization

## Tutorial Description

### Objectives

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

- Recognize the various uses of collateral and the motivations for providing and taking collateral
- Identify the various forms of collateral that can be used to reduce credit risk exposure

### Tutorial Overview

This tutorial discusses the use of collateral (or security) as a credit risk mitigant, describing the motivations for collateral usage from the point of view of collateral takers and providers. The tutorial also examines the increasingly important and ever-evolving role of a bank's collateral management function. Finally, the tutorial describes the various types of collateral taken as security and the attractions/drawbacks of each as a credit risk mitigant.

### Prerequisite Knowledge

Credit Risk Mitigation – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

## Tutorial Outline

### Topic 1: Overview of Collateral

- What is Collateral?
- Who Uses Collateral?
- Why Use Collateral?
  - Collateral Takers
    - Lower EL
    - Other Motivations
  - Collateral Providers
- Collateral Management

### Topic 2: Types of Collateral

- Range of Eligible Assets
- Cash
- Liquid Assets
- Real Estate
- Movable/Tangible Assets
- Receivables
- Commodities
- Intangible Assets
- Insurance Policies



# Credit Risk Mitigation – Management & Realization

## Tutorial Description

### Objectives

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

- Outline the key stages involved in effectively managing credit risk mitigation (CRM)
- Describe the key requirements in relation to CRM prior to drawdown of credit facilities as well as post-drawdown
- Describe the process for realizing both funded and unfunded mitigation

### Tutorial Overview

This tutorial looks at the key stages involved in effectively managing mitigants taken in support of a loan or other credit facility. It begins by outlining the assessment and approval stages of proposed mitigation, and the differences between disclosed and undisclosed mitigation. The importance of legal certainty and enforceability of mitigation is explained, as are the capital eligibility requirements under the Basel framework. Subsequent topics describe the key requirements in relation to CRM both before and after drawdown of credit facilities, as well as the process of actually realizing mitigation when necessary to do so.

### Prerequisite Knowledge

Credit Risk Mitigation – Other Types of Mitigant

Tutorial Level: Intermediate

Tutorial Duration: 60 minutes

## Tutorial Outline

### Topic 1: Overview of Mitigation Management

- Mitigation & The Credit Risk Lifecycle
  - Assessment & Approval
  - Pre-Drawdown vs. Post-Drawdown
  - Realization
  - Assessment & Approval
- Disclosed vs. Undisclosed Mitigation
- Legal Certainty & Enforceability
- Capital Eligibility

### Topic 2: Pre- & Post-Drawdown Requirements

- Pre-Drawdown Requirements
  - Overview
    - Documentation of Credit Facilities
    - Legal Documentation
    - Registrations
  - Role of Documentation Unit
  - Documentation of Claims on Third Parties
  - Initial Valuations
    - Valuers
- Post-Drawdown Requirements
  - Monitoring
  - Revaluation

### Topic 3: Realizing Mitigation

- Factors Affecting Realization
- Realizing Funded Mitigation
  - Taking Possession
  - Liquidation
    - Cost-Benefit Analysis
- Realizing Unfunded Mitigation
- Lessons Learned

# Dividend Policy

## Tutorial Description

### Learning Objectives

On completion of this tutorial you will be able to:

- Describe how dividends are paid
- Explain the difference between the classical and radical view of the dividend payment decision
- Demonstrate how the Modigliani-Miller approach to dividend policy reached its conclusions and what its weaknesses are

### Tutorial Overview

Dividend policies can differ radically between companies. This tutorial looks at the reasons why such differences in dividend policy can occur. The central question that is addressed is whether dividend policy can affect the value of a firm. In an ideal world, it would not; this is the crux of the dividend irrelevance proposition of Modigliani-Miller that is examined in detail here. Two other theories of dividend policy - the traditional and radical view - are also explained in detail.

### Prerequisite Knowledge

Corporate Finance – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: The Payment of Dividends

- Dates for payment of Dividend
  - Declaration Date With-dividend date
  - Ex-dividend Date
  - Record Date
  - Payment Date
- Types of dividend Payment Policy
  - Pure residual policy
  - Constant dividend payment ratio
  - Long-run residual dividend policy
  - Smoothed dividends policy

### Topic 2: The Dividend Payment Decision

- Classical View
- Radical View

### Topic 3: Dividend Policy

- Types
  - Cash dividend
  - Stock Dividend
  - Extra/Special dividend
- Limitations on dividend policy
  - Profitability
  - Liquidity
  - Government policy
  - Market Imperfections
  - Behaviour of Competitors

### Topic 4: Modigliani-Miller on Dividends

- Modigliani-miller

# Duration & Convexity

## Tutorial Description

### Objectives

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

- Use the Taylor approximation formula to estimate the change in the price of a bond for a small change in yield
- Measure the price volatility of a bond using the concept of duration and modified duration
- Employ the properties of duration to construct a portfolio of bonds to immunize future obligations against interest rate risk
- Calculate the degree of non-linearity of the price-yield curve by means of the convexity equation

### Tutorial Overview

For market participants that buy a bond, collect the coupon payments and hold the bond to maturity, market volatility is not a major concern (ignoring the possible reinvestment risk for their coupon payments); interest is received according to a predetermined rate and schedule, and the principal is returned at maturity. However, non-'buy-and-hold' investors that buy and sell bonds prior to maturity are exposed to many risks, most significantly interest rate volatility (bond prices and yields/interest rates are inversely related). Duration and convexity – the subject of this tutorial – are important concepts used in measuring the price volatility of a bond, or its price sensitivity with respect to a change in its yield. Being aware of these concepts helps investors to protect themselves from bond price risk.

### Prerequisite Knowledge

Bond Prices & Yields

Tutorial Level: Intermediate

Tutorial Duration: 90 mins

## Tutorial Outline

### Topic 1: Taylor Approximation Formula

- Basics of Bonds
- Taylor Approximation Formula

### Topic 2: Duration

- What is Duration?
- Why is (Modified) Duration Important?
- Macaulay Duration
- Calculating Duration in Excel
- Modified Duration – Interest Rate Elasticity of a Bond
- Modified Duration in Excel
- Predicting the Price Change Using (Modified) Duration

### Topic 3: Convexity

- What is Convexity?
- Convexity vs. Duration

### Topic 4: Risk Immunization

- What is Immunization?
- Immunization Using a Portfolio of Bonds
- The Impact on Duration of Changes in Determinants
- The Impact on Duration of Changes in Coupon
- The Impact on Duration of Change in Maturity & Yield

# 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

### 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
  - 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



# Equity Derivatives – Equity Index Swaps

## Tutorial Description

### Objectives

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

- Describe the mechanics and structure of an equity index swap
- Calculate the payments associated with the different legs of an equity swap
- Define the role of the equity swap dealer and recognize how equity swaps are priced
- Identify the risks involved in equity index swaps and distinguish between equity swap variants

### Tutorial Overview

An equity index swap is a contractual agreement between two parties to exchange cash flows or streams of payment, with one stream linked to the performance of an equity index and the other stream linked to an interest rate index. These swaps provide a way of synthetically investing in a stock market index and replicating cash investments in the underlying, resulting in a reduction in costs.

This tutorial discusses the structure of equity index swaps, along with the associated cash flows. It also describes the role of a swap dealer, the pricing of equity swaps and other related issues.

### Prerequisite Knowledge

Prior to studying this tutorial, you should have a sound understanding of swaps and equity derivatives as outlined in the following tutorials:

Swaps – An Introduction

Equity Derivatives – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 90 minutes

## Tutorial Outline

### Topic 1: Structure & uses of Equity Index Swaps

- Equity Index Swaps
- Structure of an Equity Swap
- Features of an Equity Swap
- Users & Uses of Equity Swaps
- Advantages of Equity Swaps

### Topic 2: Equity Index Swap Payments

- Calculating Payments
- Importance of Notional Amount
- Equity Swap with Constant Notional Principal

### Topic 3: Risks & Variations of Equity Index Swaps

- Credit Risk of Equity Swaps
- Methods of Reducing Credit Risk

### Topic 4: Role of the Swap Dealer & Pricing

- Role of a Swap Dealer
- Swap Dealers & Liquidity
- Pricing an Equity Swap

# Equity Derivatives – Types

## Tutorial Description

### Objectives

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

- Identify the reasons for the strong growth of equity derivatives in recent years
- Describe the mechanics and uses of contracts for difference (CFDs)
- Describe the mechanics and uses of index futures
- Describe the mechanics and uses of index options

### Tutorial Overview

The equity derivatives market has witnessed substantial growth in recent years, with increased participation by hedge funds, commodity traders and asset managers, as well as by conservative investors, who mainly trade listed derivatives. Hedge funds are the drivers of product innovation, with new instruments such as contracts for difference (CFDs), volatility futures, correlation options and dividend swaps being traded in the market.

In this tutorial, you will learn about three different types of equity derivatives: contracts for difference (CFDs), equity index futures, and equity index options. The tutorial explains their mechanics, uses, and benefits.

### Prerequisite Knowledge

Equity Derivatives – An Introduction

Forwards & Futures – An Introduction

Options – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Market Overview

- Equity Derivatives – Market Overview
- Factors Affecting Growth of Equity Derivatives
  - Hedge Funds
  - Growth of Listed Equity Derivatives Market
  - Product Innovation
  - Legalisation
  - Investor Sophistication
  - Growth of the European Market

### Topic 2: Contracts for Difference (CFDs)

- What is a CFD?
- Margin Requirements
- CFD Long Position – AN Example
- CFD Short Position – An Example
- CFDs on Equity Indexes
- Stop and Limit Orders on CFDs
- Stop Loss – AN Example
- Advantages of CFDs
- Disadvantages of CFDs
- Users of CFDs

### Topic 3: Equity Index Options

- What is an Equity Indexed Option?
- Equity Index Options – Features
- Buying an Indexed Call Option – AN Example
- Buying an Index Put Option – An Example
- Combining Futures & Options

### Topic 4: Equity Index Futures

- What is an Equity Index Future?
- Popular Equity Index Futures
- Index Future – Buy & Sell
- Price of an Equity Index Future
- Stock Index Arbitrage
- Hedging Using Index Futures
- Benefits of Index Futures

# 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

# 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

# Financial Planning

## Tutorial Description

### Objectives

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

- Explain what financial planning is
- Identify the main components of a typical financial plan
- Explain the role of modelling in financial planning

### Tutorial Overview

Financial planning is vital for every firm because:

It outlines the firm's goals and provides benchmarks against which future performance can be measured

It identifies the interaction between the firm's investment and financing decisions

It enables the firm to cope with changing business conditions. This tutorial outlines the financial planning process and shows how models can be used to forecast a firm's future financial performance.

### Prerequisite Knowledge

Corporate Finance - An Introduction

Tutorial Level: Introductory

Tutorial Duration: 100 mins

## Tutorial Outline

### Topic 1: What is Financial Planning?

- Analysing the financial and investment choices open to the firm
- Projecting future consequences of present decisions
- Deciding which alternatives to undertake
- Measuring subsequent performance against goals set
- Length of Plan
  - Short term
  - Long term

### Topic 2: Components of a Financial Plan

- Sales forecast
- Pro forma financial statements
- Capital expenditure
- Financing
- Economic Assumptions

### Topic 3: Forecasting

- Economic Stability
- Industry Dynamics
- Income Statement Items
- Balance Sheet Items

### Topic 4: Uses of Models in Financial Planning

- Financial Plans
  - Inputs
  - Planning Model
  - Outputs
- Sensitivity Analysis
  - Sales
  - Gross Profit Margin
  - Inventory period
  - Accounts receivable period
  - Accounts payable period

# Fixed Income – Credit Risk

## Tutorial Description

### Objectives

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

- Describe how the credit exposure on some bonds affects their return characteristics relative to 'riskless' debt
- Explain how credit seniority and simple covenants affect the credit risk of an issue
- Explain how market prices give an indication of credit evaluation
- Outline the roles, methodologies, and challenges faced by the major rating agencies
- Describe how credit has evolved into a distinct asset class

### Tutorial Overview

Increasingly, agents and investors in fixed income have set their sights beyond the traditional government bond markets towards the more lucrative returns available when credit risk is allied to interest rate risk. In recent years, developments have led to the emergence of credit as a truly independent asset class, with its own derivative markets and idiosyncrasies. As involvement has grown, investors have become more sophisticated, and analysis and products have become more complex.

This tutorial extends the analysis of risks facing fixed income investors beyond merely interest rate risk, and into the sphere of credit risk. It describes the credit characteristics of differing forms of debt issuance, market evaluation of credit risk, and the roles of rating agencies in the credit universe.

### Prerequisite Knowledge

Bond Markets – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 90 mins

## Tutorial Outline

### Topic 1: Credit Exposure

- What is Credit Exposure?
  - Derivative Credit Exposure
- Probability of Default
- Recovery Rate and Loss Given Default
- Expected Loss

### Topic 2: Ranking & Risk

- Questions of Seniority
  - Secured vs. Unsecured Debt
  - Senior Vs Junior Debt
- Provisions & Covenants
- Other Forms of Credit Enhancement
  - Guarantors
  - Monoline Insurers
- Recovery Rates
  - Seniority
  - Industry & Geography

### Topic 3: Credit Spreads and Evaluation

- Compensation for Risk
- Spreads
  - Relative to Government Securities
  - Relative to Interest Rate Swaps
- Types of Spread
  - Simple Yield to Maturity Comparisons
  - Zero-Volatility Spread (Z-Spread)
  - Option Adjusted Spreads (OAS)
  - Asset Swap Spreads
  - Spread on Floating Rate Notes (FRN)



- Credit Triangle
- Estimating a Default Probability
- Credit Evaluation Models and Drawbacks
- Liquidity

#### Topic 4: Rating Agencies

- Short-cuts in Credit Analysis
  - Name Recognition
  - Credit Ratings
- Rating Tables
- Why Ratings change and Do They Work?
- Ratings & Prices
- Rating Upgrades and Downgrades
- Rating Agencies
  - Credit Risk Not Market Risk
  - Challenges
    - Conflicts of Interest
    - Analysis Outside the 'Comfort Zone'
- Regulation of Agencies

#### Topic 5: Credit as an Asset Class

- Credit Derivatives
- Spread Equivalents

# 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

# Green Investing – An Introduction

## Tutorial Description

### Objectives

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

- Explain what socially responsible investment is and list the different strategies available to investors in this field
- Describe some of the key areas in SRI today, including green investing (cleantech investing) and the UN Principles for Responsible Investing (UN PRI)

### Tutorial Overview

The idea of socially responsible investing (SRI) has gained significant impetus in recent years. Sometimes referred to as 'ethical investing', SRI is an investment process that considers the social and environmental consequences of investments, both positive and negative, within the context of rigorous financial analysis. This tutorial provides a broad overview of the SRI industry, including the techniques used in responsible investment, the development and performance of the market, and global initiatives for responsible investing.

### Prerequisite Knowledge

Investment – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Overview of Socially Responsible Investing (SRI)

- Overview of Socially Responsible Investing
- Socially Responsible Investing and ESG
- SRI Activities
- Screening
- Shareholder Advocacy
- Integration of Economic Social and Corporate Governance (ESG) Factors
- Community Investing
- SRI Performance
- SRI Indexes
- Types of Socially Responsible Investor
- The History and Development of SRI
- The Current State of the SRI Marketplace

### Topic 2: Green Investing

- Overview of Green Investing
- Cleantech

# 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 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

### 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)
- Investment Risk
  - Credit Risk
  - Interest Rate Risk
  - Reinvestment Risk
  - Market Risk
  - Liquidity Risk
  - Inflation Risk
- Leveraging

- Using Borrowed Funds
- Using Derivatives

# Liquidity Risk – Identification & Measurement

## Tutorial Description

### Objectives

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

- Explain how different forms of banking business generate particular liquidity risks
- Describe how liquidity risks can be measured using gaps and ladders, and how such measurements can be adjusted to incorporate future uncertainty

### Tutorial Overview

Liquidity risk is inherent in a bank's core business of maturity transformation. Management of this risk involves identifying and measuring the cash needs of a bank and then satisfying those requirements – in good times and bad. In the wake of severe liquidity difficulties encountered during the financial crisis, regulators have highlighted the importance of liquidity risk management within financial institutions and have reviewed the relevant legislation.

This tutorial – the first of two on managing liquidity risk – looks at the issues surrounding the identification of this type of risk and the subsequent measurement of it. A second tutorial will focus on the structures banks put in place to manage this risk, as well as examining the liquidity risk regulatory environment.

### Prerequisite Knowledge

Interest Rate Risk – Identification & Measurement

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Identifying Liquidity Risk

- Show me the Money!
- Uses of Cash
- Sources of Funds
  - Equity and Retained Profits
  - Wholesale Borrowing
  - Retail Borrowing
  - Repos
  - Central Banks
  - Asset Cash Flows & Sales
- The 'Spectrum' of Liquidity

### Topic 2: Measuring Liquidity Risk

- A Sizeable Task
- Liquidity Gap Reports
- Consolidated Liquidity Gap Report
- Cash Flow Forecasting
- Adjustments
- Liquidity at Risk

# Liquidity Risk – Management & Regulation

## Tutorial Description

### Objectives

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

- Describe how financial institutions manage liquidity risk
- Explain how regulators dictate the context of liquidity management

### Tutorial Overview

The previous tutorial – Liquidity Risk Management (Part I) – looked at issues around the identification and measurement of liquidity risk. This tutorial extends that analysis to describe how banks actually manage liquidity risk. Sound management of this risk can reduce the probability of serious problems occurring. The tutorial also examines how regulators are becoming increasingly pro-active in establishing rules to be followed internally by institutions as well as in managing overall market liquidity.

### Prerequisite Knowledge

Liquidity Risk – Identification & Measurement

Tutorial Level: Intermediate

Tutorial Duration: 50 mins

## Tutorial Outline

### Topic 1: Managing Liquidity Risk

- Organization
- Centralization vs Decentralization
- Funds Transfer Pricing (FTP)
- Cross-Currency Liquidity
- Staying Alive!
- Liquidity Cushions
- A Basic Framework
- Funding Mismatches
- Daily Management
- Securitization

### Topic 2: Liquidity Risk and Regulation

- Growing Regulation of Liquidity
- Basel Committee Initiatives
- Feeling the Stress?
- Future Direction



# Market Risk – Identification & Measurement

## Tutorial Description

### Objectives

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

- Identify the typical sources of market risk for a financial institution
- Describe the different types of measurement used for the various forms of market risk

### Tutorial Overview

Market risk is the risk that the value of an institution's positions may rise/fall due to changes in the market value of financial instruments. This may take the form of gains/losses arising from traded or non-traded 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 in banking institutions: Where does it come from? How can it be measured? What are the difficulties associated with such measurements? A subsequent tutorial will look at how market risk can be managed and the regulatory context associated with this form of risk.

### Prerequisite Knowledge

Risk – Measurement & Management

Derivatives – An Overview

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Identifying Market Risk

- What is Market Risk?
- Disentangling Market Risk
- Market Risk – Instruments
  - Bonds
  - Equities
  - Foreign Exchange
  - Commodities
  - Derivatives
    - Interest Rate Derivatives
    - Credit Derivatives
    - FX Derivatives
    - Commodity Derivatives
  - Correlations

### Topic 2: Measuring Market Risk

- Position Amounts and Sensitivities
- Marking to Market
- Fair Value
- Bonds
  - Duration
    - Portfolio Duration
    - Problems with Duration
- Equities
  - Beta
- Options
  - Greeks
- Gross Market: Value at Risk (VaR)

# Market Risk – Management & Regulation

## Tutorial Description

### Objectives

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

- Outline, for a typical institution, how market risk management is organized
- Describe the market risk regulatory context in which banks operate

### Tutorial Overview

The previous tutorial – Market Risk – Identification & Measurement – looked at the first two elements of the market risk management framework. This tutorial moves beyond the identification and measurement of market risk to look at the structures banks put in place to manage market risk. The tutorial also examines how regulators are continuously attempting to ensure that banks hold sufficient capital to cover market risk, while also looking at other regulations that can help to rein in the excessive risk-taking that is perceived to have played a major role in the financial crisis.

### Prerequisite Knowledge

Market Risk – Identification & Measurement

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Managing Market Risk

- Risk Management is Everyone's Business
  - Board/ Senior Management
    - Setting Limits
    - Incentives
  - Front Office
  - Middle Office
  - Back Office (Operations)
- Hedging
  - Basis Risk
  - Optimal Hedge Ratio
  - Hedging Interest Rate Risk
    - Duration-Based Hedging
  - Incorporating Credit Risk
    - Credit Derivatives
  - Equity Hedging
    - Specific Equity Risk
    - General Equity Market Risk

### Topic 2: Market Risk & Regulation

- Basel Market Risk Requirements
  - Trading vs. Banking Book Positions
  - Standardized Approach vs. Internal Models
  - 2009 Revisions to the Basel II Market Risk Framework
- Other Regulatory Concerns
  - Volcker Rule
  - Dodd-Frank Wall Street Reform and Consumer Protection Act

# Mergers & Acquisitions (M&A)

## Tutorial Description

### Learning Objectives

On completion of this tutorial you will be able to:

- Outline the key types of mergers and acquisitions
- Explain the motives behind these transactions and the defensive tactics adopted by targets
- Describe the key steps in the merger process

### Tutorial Overview

This tutorial provides a broad overview of mergers and acquisitions (M&A). It describes the potential motives for engaging in a merger such as synergies, revenue enhancement and tax benefits. The defensive tactics available to firms subject to a hostile takeover bid and the different stages and participants in the merger process are described in detail. Finally, the history and development of the M&A market and relevant market codes and regulation are also discussed.

### Prerequisite Knowledge

Corporate Finance - An Introduction

Tutorial Level: Introductory

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Overview of Mergers & Acquisitions

- What are Mergers & Acquisitions?
- Friendly and Hostile Takeovers
- Hostile Takeovers – Defensive Tactics
  - Staggered Board
  - Supermajority Provision
  - Asset Restructuring
  - Poison Pill
    - Preferred Stock Plan
    - Flip-Over Plan
    - Flip-In Plan
    - Back-End Plan
    - Poison Put
  - White Knight
  - Golden Parachute
  - Greenmail
  - Recapitalization/Share-buy back
  - Other Defensive Tactics
    - Standstill Agreement
    - Litigation
    - Pac-Man Defense
    - Exclusionary Self-Tender
- Classifications of Mergers
  - Horizontal Mergers
  - Vertical Mergers
  - Conglomerate Mergers
- Demergers
- Reverse Mergers
- Accounting & Tax Considerations
- Regulation
  - City Code on Takeovers and Mergers
  - EU Takeover Directive
  - Williams Act (US)

### Topic 2: Motives for Mergers & Acquisitions

- Synergies
  - Operational Synergy

- Managerial Synergy
- Financial Synergy
- Revenue Enhancement
  - Market Power
  - Strategic Advantages
  - Marketing gains
- Tax Benefits
  - Tax Losses
  - Increased Debt Capacity
  - Surplus Funds
- Lower Capital Requirements
- Information Asymmetry
- Bad Motives for Engaging in Mergers
  - Diversification
  - Earnings in Growth
  - Management Failings

### Topic 3: The Merger Process

- The Role of Advisors in M&A Transactions
  - Financial Advisors
  - Financiers
  - Accountancy and Auditing Firms
  - Other Advisors
- Phases in the Merger Process
  - Development of M&A Strategy
  - Identification & Evaluation of Target Company
  - Negotiations
  - The Transaction
- Post-Merger Integration

# 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 – Management & Regulation

## Tutorial Description

### Objectives

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

- Outline, for a typical bank, how operational risk management is organized
- Describe the operational risk regulatory context in which banks operate

### Tutorial Overview

Operational risk is not new – it has existed ever since the first bank opened its doors for business. What is relatively new, however, is how modern-day financial institutions manage this category of risk. In the past, banks managed OpRisk almost exclusively through internal control mechanisms, supplemented by the internal audit function. While these remain very important, OpRisk management has evolved into a discipline in its own right with specialized personnel, policies, procedures, reporting, measurement techniques, and related technology.

This tutorial looks in detail at this more holistic approach to managing this key category of risk. It also describes the Basel requirements for measuring and managing OpRisk, which will impact on how individual institutions organize their own risk frameworks.

### Prerequisite Knowledge

Operational Risk – Identification & Measurement

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Managing Operational Risk

- Why Manage OpRisk?
- Consequences of ORM Failures
- Governance Framework
- BCBS Sound Practices
- Risk Control
  - Systems and Processes
  - Clients
  - Documentation
- Independent Evaluation
- Risk Monitoring & Reporting
- Risk Mitigation
  - Business Continuity Planning
  - Outsourcing
  - Insurance

### Topic 2: Operational Risk & Regulation

- Capital Adequacy
- Regulatory Capital
  - Basic Indicator Approach (BIA)
  - The Standardized Approach (TSA)
    - Alternative Standardized Approach (ASA)
  - Advanced Measurement Approaches (AMA)
  - Expected vs Unexpected Losses
  - Which Approach Should a Bank Use?



# Options – An Introduction

## Tutorial Description

### Objectives

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

- Describe basic option mechanics and option market terminology
- Explain the main uses of options, including basic strategies for limiting downside risk and generating income
- Outline the many markets and asset classes in which options are traded

### Tutorial Overview

Options are one of the basic building blocks in finance. A combination of options with other products allows almost infinite customization possibilities for hedgers, investors, traders, and speculators. This tutorial outlines the basic structures and terminology associated with options, and looks at the ways in which they are used. The tutorial also describes option variations across asset classes and markets.

### Prerequisite Knowledge

Derivatives – Markets

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

## Tutorial Outline

### Topic 1: Option Basics

- Option Terminology
- Option Moneyness
- Option Exercise: Cash vs. Physical Settlement
- Option Styles
  - European
  - American
  - Bermudan
- Option Payoffs/Profitability
  - Long Call
  - Short Call
  - Long Put
  - Short Put

### Topic 2: Option Uses

- Basic Strategies
- Limiting the Downside
  - Protective Put
  - Protective Call
- Generating Income
  - Covered Call
  - Covered Put
- Combinations
  - Straddle Example

### Topic 3: Option Markets

- Market Overview
- Price Quotations
- Asset Classes
  - Securities
  - Interest Rates
  - Foreign Exchange
  - Credit
  - Commodities
  - Indices
- Complex Options
  - Multiple Exercise Dates and/or Strike Prices

- Path Dependency
- Digital (Binary) Options
- Multi-Asset Options

# Preparing & Controlling a Budget

## Tutorial Description

### Objectives

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

- Explain how to prepare a budget
- Set up a control system for a budget

### Tutorial Overview

Budgeting is potentially a manager's most valuable planning and management tool - but only if budgets are carefully planned and monitored. Depending on the size of the organization, preparing a budget can be a very complex process. This tutorial focuses on important aspects of budgeting - preparation and control.

### Prerequisite Knowledge

Budgeting - An Introduction

Tutorial Level: Introductory

Tutorial Duration: 90 mins

## Tutorial Outline

### Topic 1: Preparing a Budget

- Revenue
  - Sales
  - Cost of Sales
  - Gross Profit
- Operating Expenses
- Operating Profit

### Topic 2: Controlling a Budget

- 1. Calculate a monthly budget
- 2. Input monthly actuals
- 3. Calculate variances
- 4. Flex the budget
- 5. Calculate flexed variances
- 6. Analyze the variances
- 7. Take corrective action

# 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 – Clients

## Tutorial Description

### Objectives

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

- Define the rationale for classifying and grouping wealth management clients
- Recognize the need to define and group clients with like characteristics, and understand the service offerings to each client group in the customer wealth “pyramid”
- Identify the spectrum of client styles and attitudes to private wealth management being a range from the most independent and self-directed person to the client needing a full private wealth management support service

### 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

Private Wealth Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

### Tutorial Outline

#### Topic 1: Client Segmentation

- Client Complexity & Wealth Management Services
- Client Segmentation
  - Criteria
  - Risks
- Client Categories & Service Levels
- Client Wealth Classification Pyramid
  - Affluent
  - High Net Worth (HNW)
  - Very High Net Worth (VHNW)
  - High Ultra Net Worth (UHNW)
- Family Offices
- Segmentation Policy & Client Identity

#### Topic 2: Client Types

- Client Professions & Sources of Wealth
- Executives
- Business Owners & Entrepreneurs
  - Private Banking Needs
- Professional Athletes
- Entertainers
- Medical & Legal Practitioners
- Expatriates
- Inheritors
- Gatekeepers, Influencers, & Referrers

#### Topic 3: Client Perspectives, Attitudes, & Orientation

- Family & Business Needs of Clients
- Meeting the Family Needs of Clients
- Client Financial Lifecycles
- Client Wealth Management Attitudes & Orientation
  - Self-directed
  - Collaborator



- Delegator
- Philanthropist
- Trends

# Private Wealth Management – Compliance Considerations

## Tutorial Description

### Objectives

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

- Define the scope and framework of compliance in financial institutions and recognize the importance of mitigating the consequences of noncompliance
- Identify the key compliance themes that apply specifically to private wealth management firms, particularly the importance of the customer and employee due diligence process
- Recognize the main compliance requirements for private banks and wealth management firms, especially codes of conduct, cross-border transactions, customer investment suitability, and responsible lending

### Tutorial Overview

This tutorial looks at the area of compliance and the reasons behind the increased regulatory focus on financial institutions and private wealth management firms in recent times.

### Prerequisite Knowledge

Private Wealth Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

## Tutorial Outline

### Topic One: The Compliance Function

- Overview of Compliance
- Compliance & The Wealth Management Firm
- Compliance Framework
- Importance of Compliance
- Dealing with Regulatory Complexity

### Topic Two: Compliance in Private Wealth Management

- Overview of Compliance in a Wealth Management
- Employee Due Diligence (EDD)
- Customer Due Diligence (CDD)
  - Sources of Information
- Know Your Customer (KYC)
- Suspicious Activity Reporting (SAR)
- Risk of Fraud
- Preventing the Risk of Fraud
- Data Protection
  - Records Management & Confidentiality Agreements
- Conflicts of Interest
  - Managing & Resolving Conflicts of Interest

### Topic Three: Key Compliance Issues

- Overview of Compliance Issues
- Codes of Conduct
  - Professional Conduct & Competency
  - Market Conduct
- International Transactions with Nonresident Clients
- Investment Suitability
  - Customer Profiling
  - Product Classification
  - Full Disclosure
- Responsible Lending
- The Future of Compliance in Private Wealth Management

# 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

# Private Wealth Management – Investment Services

## Tutorial Description

### Objectives

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

- Recognize the importance of portfolio management and investment support for high net worth clients
- Identify the key fiduciary and custody services provided by wealth management businesses
- Define the core specialist investment services provided to private clients

### Tutorial Overview

This tutorial provides an overview of investment services for private wealth clients. It examines the importance of investment support and portfolio management as well as fiduciary and custody, and specialist investment services.

### Prerequisite Knowledge

Private Wealth Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

## Tutorial Outline

### Topic 1: Portfolio Management & Investment Support

- Overview of Investment Services
- Strategic Advice & Research
  - Investment Architecture
- Portfolio Management & Investment Selection
- Discretionary Portfolio Management
- Nondiscretionary Portfolio Management
- Investment Vehicles & Products
- Other Investment Support Services

### Topic 2: Fiduciary & Custody Services

- Overview of Fiduciary Services
- Benefits of Fiduciary Services for Clients
- Trustee Services
  - Estate Planning
- Custody Services

### Topic 3: Specialist Investment Services

- Overview of Specialist Investment Services
- Corporate Advisory Solutions
- Bespoke Investment Services
- Family Office Advice
- Immigrant Investor Programs

# Project Finance – An Introduction

## Tutorial Description

### Objectives

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

- Explain what project finance is and its role in funding large scale projects
- Outline the key players in a project finance deal
- Describe the costs and benefits of project finance for sponsors

### Tutorial Overview

Project finance is a financing method used to fund capital-intensive projects, especially those involving power generation, public infrastructure, and extractive industries. It differs from corporate finance deals in that the project is separated from its sponsors who set up a bankruptcy-remote special purpose vehicle (SPV) to hold the project assets.

This tutorial provides a broad overview of the project finance market, showing a typical project finance deal and the main players involved. The costs, benefits, and risks associated with project finance are also described.

### Prerequisite Knowledge

Corporate Banking Products – Term Finance

Tutorial Level: Introductory

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Overview of Project Finance

- Key Characteristics of Project Finance deals
- Project Finance – Types of Project
- History and Development of Project Finance
- Example of a Project Finance Deal

### Topic 2: Project Finance Participants and Structures

- Participants in Project Finance Deal
- Advisors/Consultants
- Arrangers/Lenders
- Contractors
- Suppliers
- Purchasers
- Project Finance Structures
- Costs and Benefits of Project Finance Deals for Sponsors

### Topic 3: Project Risk

- Project Risk
- Pre-Completion Risks
- Post-Completion Risks
- Project Risk – All Phases
- Project Risk Management by the Borrower/SPV
- Risk Allocation by the SPV to Project Counterparties



# Project Finance – Deal Structuring

## Tutorial Description

### Objectives

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

- Outline the key stages in a project finance deal
- Describe the different forms of project debt

### Tutorial Overview

Project finance deals are complex transactions involving a large number of participants. Most project finance is raised through a group of bank lenders, known as a syndicate, who pool their resources to extend credit to the project SPV. This structure enables lenders to share the considerable risk of project finance, which is non-recourse in nature. Some finance deals may also involve a bond issue, which is typically placed and underwritten by a strong, reputable bank with a global outreach. Project sponsors will also contribute funds to a project finance deal in the form of equity or subordinated debt/mezzanine finance.

This tutorial looks at how loans are raised for project finance deals, and outlines the costs and benefits of this approach for borrowers. Other sources of project finance are also described.

### Prerequisite Knowledge

Project Finance – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 90 mins

## Tutorial Outline

### Topic 1: Stages in a Project Finance Deal

- Advising
  - Preparation of the Project Plan/Financial Model
  - Determining the Optimal Capital Structure
  - The Optimal Capital Structure for Sponsors
  - Cover Ratios
  - Sensitivity Analysis
  - Information Memorandum
- Arranging Services
- Syndication
  - Project Loan Negotiation and Structuring
  - Covenants
  - Events of Default
  - Representations and Warranties
  - Conditions Precedent
- Financial Close/ Drawdown
- Loan Administration and Monitoring

### Topic 2: Types of Debt

- Equity/Mezzanine Finance
- Project Loan Facilities
- Project Bonds – Issuing
- Leasing

# Real Estate – An Introduction

## Tutorial Description

### Objectives

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

- Identify the characteristics of real estate and the role of the key players in real estate markets
- Distinguish between the two real estate sectors, residential and commercial, and their subsectors
- Recognize the main features of real asset as an asset class

### Tutorial Overview

This tutorial describes the fundamentals of real estate and distinguishes between the residential and commercial real estate sectors (and subsectors). The characteristics of real estate as an asset class are discussed in detail, including a comparison with other asset classes. The tutorial also looks at the phenomenon of real estate cycles and the features of such cycles.

### Prerequisite Knowledge

Investment – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 minutes

## Tutorial Outline

### Topic 2: Real Estate Basics

- What is Real Estate?
- Characteristics of Real Estate
  - Immovability
  - Divisibility
  - Durability
  - Heterogeneity
  - Investment & Consumption Good
- Residential vs. Commercial Real Estate
- Ownership
  - Freehold
  - Leasehold
  - Ownership, Mortgages, & Security
- Market Players
  - Property Owners/Homeowners
  - Tenants/Lessees
  - Developers
  - Agents/Intermediaries
  - Investors
  - Banks & Other Lenders
  - Mortgage Brokers

### Topic 2: Real Estate Sectors

- Residential Real Estate
- Commercial Real Estate
  - Sectors
  - Sector Comparison
  - Office
  - Apartment
  - Retail
  - Industrial
  - Leisure
  - Other

### Topic 3: Real Estate as an Asset Class

- Rental Income
- Capital Appreciation
- Residential vs. Commercial Real Estate

- Costs
- Lease Agreements
- Returns
- Comparison With Other Asset Classes
  - Correlation
- Valuation
- Risks
  - Valuation
  - Liquidity
  - Leverage
  - Planning & Other Legal Issues
  - Tenants
  - Taxation & Other Costs
  - Macroeconomic Conditions
  - Diversification
- Real Estate Cycles
  - Real Estate Cycles & The Economy

# 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

# Repurchase Agreements (Repos)

## Tutorial Description

### Objectives

On completion of this tutorial you will be able to:

- Define a repurchase transaction and its key features
- Calculate repo interest, haircuts and margins
- List the different types of repo collateral and variants of standard repurchase transactions

### Tutorial Overview

A repurchase agreement (or repo) is a money market instrument whereby a borrower sells securities (or some other asset) to another party at a fixed price and agrees to repurchase the securities at an agreed future date and dirty price. Repos are a form of collateralized borrowing. The tutorial shows how the repo process works, how repo interest is calculated, and how haircuts and margins are applied to these transactions.

Tutorial Duration: 60 minutes

Tutorial Level: Intermediate

## Tutorial Outline

### Topic 1: Features of Repos

- Repos & Reverse Repos
- Uses of Repos
- Financing Long Positions with Repos
- Repos & Interbank Transactions
- Repos & Interbank Interest Rates
- Repo Market Jargon
- Repo Buyers & Sellers
- Repos: Borrowing & Lending

### Topic 2: Repo Calculations

- Clean & Dirty Bond Prices
- Repo Interest
- Haircuts & Margin
  - Haircuts
  - Initial Margin
    - Cash-Driven Repo
    - Securities-Driven Repo
  - Variation Margin
    - Cash-Driven Repo
    - Securities-Driven Repo

### Topic 3: Repo Variations & Collateral Types

- Repo Variations
  - Classic (US-Style Repo)
  - Buy/Sell Backs & Sell/Buy Backs
  - Tri/Party Repos
  - Hold-in-Custody Repos
  - Cross-Currency Repos
- Collateral Types
  - General Collateral
  - Special Collateral

# 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

Primer – Risk

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 – Risk Types & Measurement

## Tutorial Description

### Objectives

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

- Identify the main risk types and how they influence the risk management framework
- Recognize the main risk measures and the benefits and issues associated with their use

### Tutorial Overview

Banks must manage numerous types of risk that arise from their day-to-day activities. But their ability to measure – and therefore manage – risk varies considerably by risk type. Some, such as credit and market risk, are relatively easy to measure but others, such as operational risk, are far more difficult. This tutorial covers the main risk types, such as those mentioned, and the measurement of these and other types of risk that banks face.

### Prerequisite Knowledge

Risk Management – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 45 minutes

## Tutorial Outline

### Topic 1: Risk Types

- Risk Types
- Allocating Individual Risks to Different Risk Types
- Allocating Individual Risks to Different Risk Types: Example
- Interrelated Risks
- Risk Types & Risk Organization
- Advantages & Disadvantages of Risk Types
- Risk Types & Regulatory Requirements

### Topic 2: Risk Measurement

- Risk Measurement
- Why Measure Risk?
- Risk Types & Risk Measurement
- What Should Be Measured?
- Examples of Risk Measures
- Aggregating Risk Measures
- Monetary Values
- Scenario: Calculating & Reporting Monetary Values
- Other Risk Measures

# 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

## Scenario – Managing a High Net Worth Client

### Tutorial Description

#### Overview

This scenario explores how various private wealth management concepts are used in practice. You will observe a situation where a private banker manages a relationship with a client, with support from other personnel. The client is interviewed by the private banker as part of a regular portfolio review and you will follow the line of discussion around needs analysis, risk and reward, due diligence, and the concerns of the client.

#### Prerequisite Knowledge

A basic understanding of wealth management products and services as well as the key aspects of client relationship management is assumed.

Level: Intermediate

Duration: 45 minutes

# Securitization – An Introduction

## Tutorial Description

### Objectives

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

- Define 'securitization' and explain how the process evolved
- Describe the process of securitization and the roles of the different players involved
- Explain how the resultant securities are constructed
- Explain the motivations involved in the securitization of a pool of assets

### Tutorial Overview

The process of securitization collects together financial assets, such as mortgages, into a single pool. The returns generated by a collection of such assets are more predictable than returns on individual assets. Securities backed by the pool can then be issued to investors and the returns on such securities are linked to the returns on the assets.

This tutorial examines in detail the main elements of the securitization process, providing information on a variety of topics including the main players involved in the process, the construction of the securities, and the motivations for a securitization.

### Prerequisite Knowledge

Bond Markets – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 90 mins

## Tutorial Outline

### Topic 1: Fundamentals of Securitization

- What is Securitization?
- Evolution of Securitization
- Agencies
- New Instruments
- More Assets
  - Existing Asset Securitizations
  - Future-Flow Securitizations
  - Synthetic Securitizations
- Some Terminology: Types of Asset-Backed Securities

### Topic 2: The Securitization Process & Participants

- The Securitization Process
- Securitization Players
- Securitization – Basic Structure

### Topic 3: Benefits of Securitization

- Advantages of Securitization to an Originator/Issuer
- Attractions of Securitized Assets to Investors

### Topic 4: Constructing the Securities

- Types of Securities
- Multiple Tranches
- Other Forms of Credit Enhancement
- Credit Ratings, Underwriting, & Distribution

# 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

# Securitization – Mortgage-Backed Securities (MBS)

## Tutorial Description

### Objectives

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

- Identify the major features of mortgage-backed security markets in the United States and across the globe
- Explain the characteristics of mortgage collateral pools
- Describe how subsequent securities are differentially structured in order to balance investor appetite with collateral risk

### Tutorial Overview

This tutorial focuses on mortgage-backed securities, both in the United States and elsewhere on the globe. It examines the scale of the markets and the key characteristics as regards the underlying collateral and the construction of the subsequent securities. In particular, it highlights the areas of prepayment risk and the sequential repayment of different classes of mortgage-backed securities.

### Prerequisite Knowledge

Securitization - An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 90 mins

## Tutorial Outline

Topic 1: The Development of the MBS Market

- From Zero to Hero?
- Development of the Market

Topic 2: The Collateral Pool

- Types of Mortgage Loan
  - 'Conforming' Mortgages
  - Non-Agency Mortgages
- CMBS and HELs
- Fixed & Variable Rate Mortgages
- Repayment Characteristics
- Prepayments
- Static Prepayments
- PSA Measurements
- Static Prepayment Models
- Dynamic Prepayment Models

Topic 3: Security Types

- The Transmission Mechanism
- Rating Agencies
- Credit Enhancement
- CMO Variations
  - PACs and TACs
  - Z-bond
  - Floaters
  - Interest-Only (IO) and Principal-Only (PO) Securities
- Non-US MBS Markets
- Different Currencies
- UK Master Trust Structure
- Pool Terminology

# Socially Responsible Investing (SRI) – An Introduction

## Tutorial Description

### Objectives

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

- Explain what socially responsible investment is and list the different strategies available to investors in this field
- Describe some of the key areas in SRI today, including green investing (cleantech investing) and the UN Principles for Responsible Investing (UN PRI)

### Tutorial Overview

The idea of socially responsible investing (SRI) has gained significant impetus in recent years. Sometimes referred to as 'ethical investing', SRI is an investment process that considers the social and environmental consequences of investments, both positive and negative, within the context of rigorous financial analysis. This tutorial provides a broad overview of the SRI industry, including the techniques used in responsible investment, the development and performance of the market, and global initiatives for responsible investing.

### Prerequisite Knowledge

Investment – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Overview of Socially Responsible Investing (SRI)

- Overview of Socially Responsible Investing
- Socially Responsible Investing and ESG
- SRI Activities
  - Screening
  - Shareholder Advocacy
  - Integration of Economic Social and Corporate Governance (ESG) Factors
  - Community Investing
- SRI Performance
- SRI Indexes
- Types of Socially Responsible Investor
- The History and Development of SRI
- The Current State of the SRI Marketplace

### Topic 2: Green Investing

- Overview of Green Investing
- Cleantech



# Structured Trade Finance

## Tutorial Description

### Objectives

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

- Explain the concept of structured trade finance and how it differs from traditional trade finance
- Describe the different solutions offered by structured trade finance providers
- Outline the role of development banks and export credit agencies (ECAs) in structured trade finance

### Tutorial Overview

The nature and complexity of international trade has changed dramatically over the past generation or so. Emerging markets now play the most dynamic role in international trade and are the focus of global supply chain development. As large-scale projects and global supply chains reach deeper into emerging markets, the risk of nonperformance and nonpayment increases.

These prevailing trends in international trade have created the need for financing solutions that are more robust and can mitigate most of the risks associated with complex trade initiatives involving riskier emerging markets. Structured trade finance has emerged to support these initiatives by addressing risks related to the performance or completion of a transaction, rather than more traditional reliance on the financial soundness of the parties to a transaction.

This tutorial describes the concept of structured trade finance in detail and how it differs from traditional trade finance. You will also learn about the different types of structured trade finance solutions and the role of the different lending institutions involved.

### Prerequisite Knowledge

Export Finance

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Overview of Structured Trade Finance

- What is Structured Trade Finance?
- Providers of Structured Trade Finance
- Structured Trade Finance versus Traditional Trade Finance
- Risks in International Trade that Affect Structured Trade Finance
  - Performance Risk
  - Payment Risk
  - Political Risk
  - Legal Risk
  - Market (Volatility) Risk
- Types of Lending in Structured Trade Finance
  - Asset-Based Lending
  - Cash Flow Lending
- Additional Features of Structured Trade Finance
  - Collateral Management
  - Hedging
  - Insurance
  - Guarantees
- Benefits of Structured Trade Finance
  - Flexible Financing Solutions
  - Risk Reallocation
  - Avoidance of Restrictive Covenants on the Borrower's Balance Sheet
  - Use of Future Cash Flows to Raise Export Financing
  - Entry into Emerging Markets
  - Lower Funding Costs
- Drawbacks of Structured Trade Finance
  - Performance Risk
  - Complexity

- Up-Front Costs
- Price Volatility
- Reliability of Collateral Managers
- Political Risk

#### Topic 2: Structured Trade Finance Solutions

- Pre-Export Financing
- Tolling & Processing
- Warehouse Financing
- Borrowing Base Financing
- Syndicated Lending

#### Topic 3: Role of Development Banks & ECAs in Structured Trade Finance

- Development Banks
- Products Offered
- Standard Loans
- Local Currency Financing
- Guarantees and Pre-Export Facilities
- Equity
- Collateral Requirements
- Export Credit Agencies (ECAs)

# 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 – Constant Maturity Swaps

## Tutorial Description

### Objectives

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

- Identify opportunities to use constant maturity swaps profitably
- Target market conditions that make constant maturity swaps an ideal client product
- Identify the important sources of mark-to-market sensitivity for constant maturity swaps
- Apply convexity adjustments while pricing constant maturity swaps

### Tutorial Overview

Constant maturity swaps (CMS), a variation of interest rate swaps, are relatively new in the derivatives market. The basic CMS structure offers the exchange of two floating rate coupon streams, one based on a par swap rate or government bond yield and the other based on a short-term rate (such as Libor). These instruments are an ideal product for investors looking to take a view on the shape of the implied forward curve.

In this tutorial, we describe the structure of constant maturity swaps and explain how these instruments are priced. Concepts related to their pricing, such as sensitivities and convexity adjustments, are also included.

### Prerequisite Knowledge

Swaps – An Introduction

Swaps – Pricing & Valuation (Part I)

Swaps – Pricing & Valuation (Part II)

Tutorial Level: Advanced

Tutorial Duration: 120 mins

## Tutorial Outline

### Topic 1: Structure of a Constant Maturity Swap

- The Three Elements
- Variations to the Interest Rates
- An Alternate View

### Topic 2: Pricing a Constant Maturity Swap

- Revisiting the Inference Inc. Deal
- The Forward Spreads
- The CMS Spread Formula
- Inference Inc Deal – Calculating the CMS Spread

### Topic 3: Price Sensitivities

- Yield Curve Expectations
- Source of Sensitivity
- Parallel Shift Sensitivity
- Non-parallel Curve Shifts
- Factor Sensitivity

### Topic 4: Convexity Adjustments

- Need for Convexity Adjustment
- Parameters for Convexity Adjustment
- The Convexity Adjustment Formula

# Swaps – Currency Swaps

## Tutorial Description

### Objectives

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

- Describe the basic features and characteristics of currency swaps
- Price different types of currency swaps

### Tutorial Overview

Currency swaps were first used in the 1970s. Along with interest rate, equity and commodity swaps, these instruments have changed the face of finance. At the surface level, they have allowed risks to be managed and capital markets accessed in ways that were unimaginable before. At a deeper level, they facilitate the understanding and measurement of risks across enterprises so that those enterprises can operate more effectively.

In this tutorial, we will describe the different types of currency swaps and explain how they are priced.

### Prerequisite Knowledge

Swaps – An Introduction

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Introduction to Currency Swaps

- Basics of Currency Swaps
- Currency Swaps – Example
- Uses of Currency Swaps
- Risks in Currency Swaps

### Topic 2: Swaps – Interest Rate Swap Pricing

- Types of Currency Swap
- Fixed-to-Fixed
- Pricing a fixed-to-fixed Currency Swap
- Fixed-to-Floating
- Pricing a fixed-to-floating Currency Swap
- Floating-to-Floating
- Pricing a floating-to-floating Currency Swap

# Swaps – Forward, Amortizing, & Zero-Coupon Swaps

## Tutorial Description

### Objectives

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

- Identify opportunities to use the three swaps profitably with clients
- Target market conditions that make the swaps ideal client products
- Identify pricing requirements
- Price the swaps based on market conditions
- Identify all sources of mark-to-market sensitivities

### Tutorial Overview

Forward, amortizing and zero-coupon swaps are variations of the traditional interest rate swap structure that are often used in combination with one another. Forward swaps are used to take a view on forward interest rates, amortizing swaps are used to match the underlying principal to an amortizing loan, while zero-coupon swaps are useful if the floating rate receiver has a short-term cash flow deficit. In this tutorial, you will learn how each of these swap types is used, structured and priced.

### Prerequisite Knowledge

Swaps – An Introduction

Swaps – Pricing & Valuation (Part I)

Swaps – Pricing & Valuation (Part II)

Tutorial Level: Advanced

Tutorial Duration: 180 mins

## Tutorial Outline

### Topic 1: Forward Swaps

- Price Sensitivities
  - Price Sensitivity to Parallel Curve Shifts
  - Price Sensitivity to Non-parallel Curve Shifts
- Pricing
  - Present Value of the Floating Leg
  - Solving for the Fixed Coupon

### Topic 2: Amortizing Swaps

- Price Sensitivities
  - Price Sensitivity to Parallel Curve Shifts
  - Price Sensitivity to Non-parallel Curve Shifts
- Pricing
  - Present Value of the Floating Leg
  - Solving for the Fixed Coupon

### Topic 3: Zero-Coupon Swaps

- Price Sensitivities
  - Price Sensitivity to Parallel Curve Shifts
  - Price Sensitivity to Non-parallel Curve Shifts
- Pricing
  - Present Value of the Floating Leg
  - Solving for the Fixed Coupon

# Swaps – In-Arrears Swaps

## Tutorial Description

### Objectives

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

- Structure an in-arrears swap
- Price an in-arrears swap
- Identify the three sources of mark-to-market sensitivity for in-arrears swaps
- Explain the hedging of an in-arrears swap
- Calculate the convexity adjustment required for in-arrears swaps
- Target market conditions that make in-arrears swaps an ideal client product

### Tutorial Overview

An in-arrears swap is a variation of a traditional interest rate swap. The difference between the two relates to the floating rate payment. With a traditional swap, floating rate payments are based on the level of the reference index at the start of the interest period. With an in-arrears swap, floating rate payments are based on the level of the reference index rate at the end of the interest period.

In-arrears swaps are used to speculate on changes in the shape of the yield curve and are particularly well suited to steep yield curve environments. This tutorial looks at how in-arrears swaps are structured and describes in detail how they are priced. Other topics, such as price sensitivities and hedging, are also covered.

### Prerequisite Knowledge

Swaps – An Introduction

Swaps – Pricing & Valuation (Part I)

Swaps – Pricing & Valuation (Part II)

Tutorial Level: Advanced

Tutorial Duration: 180 mins

## Tutorial Outline

### Topic 1: Structure of an In-Arrears Swap

- Reviewing Better Deal Bank's Offers
- Payment Leg 1 – Libor Set in Arrears
- Payment Leg 2 – Libor Plus Some Spread

### Topic 2: Pricing an In-Arrears Swap

- Reviewing Better Deal Bank's Offer
- Calculating the Spread
- Rule of Thumb Method

### Topic 3: Pricing Sensitivity

- Reviewing Better Deal Bank's Offer
- Sources of Pricing Sensitivity
- Parallel Shift Sensitivity
- Factor Sensitivity
- Non-Parallel Curve Shifts

### Topic 3: Hedging an In-Arrears Swap

- Reviewing the 3-year Euribor In-arrears Swap
- Equivalent Hedge Positions
- How effective is the Hedge?
- How does the Hedge Work?

### Topic 4: Favourable Market Conditions

- When should you consider an In-Arrears Swap?

### Topic 5: Understanding Convexity Adjustments

- Why do we need a Convexity Adjustment?
- Calculating the Hedge Ratio
- How does this Hedge perform?
- Need for Convexity Adjustments
- Calculating the Convexity Adjustment
- Caplet Volatility
- Volatility and Convexity Adjustments
  - Upper Range Calculations
  - Lower Range Calculations
- Effect of the Convexity Adjustment
- The Convexity Adjustment Formula
- Timing Adjustment



# Swaps – Pricing & Valuation (Part I)

## Tutorial Description

### Objectives

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

- Calculate the future value and timing of various cash flows associated with a swap
- Calculate the discount factors applicable to future dates and the present value of a collection of cash flows in a swap

### Tutorial Overview

Valuation of swaps is a two-stage process. It requires determining the size and timing of the cash flows and then calculating the present value of these cash flows. The 'value' of a transaction is simply the difference between the present values of the flows that are due to be received and those that are due to be paid.

This tutorial focuses on the general approach necessary to calculate the value of a swap transaction. It concentrates on the generation and discounted value of future cash flows.

### Prerequisite Knowledge

Prior to studying this tutorial, you should have a solid understanding of the fundamentals of swaps as outlined in the following tutorials:

Swaps – An Introduction

Swaps – Applications

Tutorial Level: Intermediate

Tutorial Duration: 60 mins

## Tutorial Outline

### Topic 1: Swap Cash Flows

- Swap Dates
- Cash Flows
- Elements of the Cash Flow Calculation
  - Day Count Conventions
  - Payment Frequencies
  - Business Day Conventions
  - Adjusted/Unadjusted Payments
- Compounded Payments
- Unknown Future Flows – Calculating Forwards
- Floating Rate Margins & Basis Swaps

### Topic 2: Valuing the Swap Cash Flows

- Discount Factors
- Discount Factors – Deposits
- Discount Factors – Swap Rates
- Zero-Coupon Rates
- Zero Rates & Par Rates
- Interpolation
- Putting it All Together
- Shifting Rates
- Annuity Factors
- The Value of the Change in Yields –PVBP
- Amortizing & Accreting Swaps
- The Floating Leg – Valuation

## Swaps – Pricing & Valuation (Part II)

### Tutorial Description

#### Objectives

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

- Define how the yield curve for swap pricing and valuation is derived from different sources
- Build a yield curve from a combination of deposits and money market futures and identify the factors that may affect the curve
- Outline the different conventions prevalent in the major swap markets
- Calculate values for simple swap structures and describe the imperfections and approximations implicit in any such simplified approach

#### Tutorial Overview

This second tutorial on swap pricing and valuation extends from the basic techniques introduced in the first tutorial. This second part focuses on the minutiae particular to individual swap markets, and asks the question "Where do the swap rates come from?" The tutorial also shows how simple calculations can give good approximations to otherwise complex results.

#### Prerequisite Knowledge

Prior to studying this tutorial, you should have a basic understanding of swaps and their valuation as outlined in the following tutorials:

Swaps – An Introduction

Swaps – Applications

Swaps – Pricing & Valuation (Part I)

Tutorial Level: Intermediate

Tutorial Duration: 75 mins

### Tutorial Outline

#### Topic 1: Swap Rates

- Introduction
- The Swap yield Curve
- Interbank Deposit Rates
- Using the Correct Rates
- Money Market Futures Contracts
- Information Contained in Future Prices

#### Topic 2: Building the Swap Curve

- Generating the Contract Period Discount Factors
- Generating the Discount Factors from Spot
- Convexity Adjustments
- Declining Liquidity
- Longer-Term Rates – Government Bonds
- Bond Spreads
- Bond Spreads and Maturity
- Causation

#### Topic 3: Market Conventions

- Common Market Conventions
- The Major Markets

#### Topic 4: Valuing Simple Swap Structures

- Conversion between Types of Convention
- Conversion between Types of Interest Rate
- Annual versus Semi-annual
- Forwards Revisited
- Present Value of a Stream of Cash Flows
- Present Value – Approximation

Putting it Together – A forward Starting Swap

- Parallel Shift Sensitivity
- Measuring Factor Sensitivity
- Factor Sensitivity – Hedging the Position
- Non Parallel Shift Sensitivity

# 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

### Topic 2: Cybercrime & Insider Threats

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

### Topic 3: Fraud

- Fraud Committed by Cyber Criminals
- Types of Fraud
  - Accomplice / Illicit Behavior Scams
  - Bogus Products & Services
  - Business-Targeted Scams
  - Gambling Scams
  - Identity Frauds
  - Investment Frauds
- Money-Making Scams
- Technological Scams

### 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 Suspensions
- Deploy Safe Surfing Techniques



# US Equity Market

## Tutorial Description

### Objectives

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

- Describe how decimalization in 2000 paved the way for the growth in electronic and automated trading
- Understand how subsequent regulation, namely Regulation NMS, aimed at curbing such activity has changed the market structure
- Describe how a number of high-profile events have negatively affected the market
- Outline how regulators have responded to such events in order to stem the decline in investor confidence
- Explain how primary markets function as a means for corporations to raise funding in the US, and the intense competition between exchanges for IPO business
- Describe how the traditional floor-based trading model has changed with the growth of electronic trading and the emergence of off-exchange venues such as dark pools

### Tutorial Overview

The US is by some distance the largest equity market in the world, with two of its exchanges (NYSE Euronext and NASDAQ OMX) leading all others in terms of both market capitalization and turnover. But it is also a very fragmented market. As technology continues to advance, traditional methods of corporate fund raising and ways of accessing and trading equity markets are becoming a distant memory. Old-style floor-based trading on physical exchanges has been overtaken by electronic trading venues and non-traditional exchanges that provide enhanced price discovery and increased market liquidity. The result is a highly fragmented marketplace with fierce competition among the major players.

This tutorial describes the key events – technological, regulatory, or otherwise – that have shaped the current structure of the US equity market and the operations of traders and trading venues within that structure.

### Prerequisite Knowledge

Equity Markets – An Introduction

Tutorial Level: Introductory

Tutorial Duration: 75 mins

## Tutorial Outline

### Topic 1: Market Structure & Reform

- Size & Scale
- Market Structure
  - Impact of Decimalization
  - Impact of Regulation NMS
  - Growth of High Frequency Trading (HFT)
  - Emergence of Dark Liquidity
- Market Disruptions and Failures
  - Flash Crash
  - Facebook IPO
  - Knight Capital Group's Trading Loss
  - Problems on the BATS Exchanges
- Regulatory Reforms
  - Large Trader Reporting
  - Extraordinary Volatility
    - Limit-Up-Limit-Down (LULD)
    - Market-Wide Circuit Breakers
  - Consolidated Audit Trail (CAT)
  - Systems Compliance and Integrity

### Topic 2: Primary Market Issuing

- What is a Primary Market?
  - Initial Public Offerings (IPOs)
  - Seasoned Offerings

- Issuing Process
  - SEC Registration
  - Regulation D
    - Rule 504
    - Rule 505
    - Rule 506
- Competition for New Issues
  - NYSE vs. NASDAQ
  - Listing Requirements

### Topic 3: Secondary Market Trading

- National Securities Exchanges
- NYSE Euronext
  - NYSE
  - NYSE MKT
  - NYSE Arca
  - ArcaEdge
  - NYSE Market Model
- NASDAQ QMX
  - NASDAQ Stock Market (NASDAQ)
  - NASDAQ QMX PSX
- OTC Markets
- Dark Liquidity Providers

# Working Capital Management

## Tutorial Description

### Objectives

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

- Explain the importance of working capital management
- Calculate a firm's working investment need
- List the causes and risks of overtrading

### Tutorial Overview

Most decisions the financial manager will make are short-term in nature; for example, organizing a 90-day bank loan to plug a financing gap. Though easier than long-term financial planning, short-term decisions are no less important. This tutorial focuses on the types of short-term assets and liabilities owned by a company and how the company can most efficiently use them. It also illustrates how short-term funding requirements can be met.

### Prerequisite Knowledge

Corporate Finance - An Introduction

Tutorial Level: Introductory

Tutorial Duration: 65 mins

## Tutorial Outline

Topic 1: The Cash Conversion Cycle

- Definition

Topic 2: Working Investment

Topic 3: Working Capital

- Current Assets
- Current Liabilities
- Current Ratio
- Quick Ratio

Topic 4: Shortening the Cash Conversion Cycle

- Delaying payment of accounts payable
- Improved inventory control
- Improved debt collection