Tutorial Overviews

Contents

Analysis of the Balance Sheet

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

- Identify the different types of asset and liability and the components of shareholders' equity
- Consolidate a company's balance sheet
- Perform ratio analysis of balance sheet items

Tutorial Overview
The balance sheet provides a 'snapshot' of an organization at a particular point in time. It indicates the organization's financial strength, providing information about what it owns (assets), what it owes (liabilities), and the 'book value' of the business. Ratio analysis can also be performed on the balance sheet in order to gain valuable insight into the organization's performance.

This tutorial introduces the various elements that make up a balance sheet and shows where these are positioned on the balance sheet itself. It also discusses consolidated balance sheets (the balance sheet of a group of businesses), before concluding with balance sheet ratio analysis.

Prerequisite Knowledge
Accounting – An Introduction

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Elements of the Balance Sheet
- Fixed & Current Assets
- Current Liabilities
- Provisions
- Contingent Liabilities
- Long-Term Liabilities
- Equity
- Balance Sheet Navigation
- Strengths and Weaknesses of The Balance Sheet

Topic 2: Consolidated Balance Sheets
- The Holding Company and its Subsidiaries
- Consolidated Balance Sheets

Topic 3: Balance Sheet Ratio Analysis
- Balance Sheet Ration Analysis
- Liquidity Ratios
- Gearing Ratios

Analysis of the Income Statement

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

- Identify the key elements of the income statement
- Calculate key ratios associated with the income statement

Tutorial Overview
Users of financial statements attach great importance to the income statement (or P&L) statement. It's easy to see why; the income statement shows a company's revenue, its expenditure incurred in earning that revenue, and, finally, its net income or profit. A company's net income is an important indicator of its long-term prosperity and ability to create shareholder value.

Investors, analysts, and other interested parties should not focus on income exclusively, however. Depending on accounting policies employed, the effect on reported income in the financial statements can be significant. This tutorial introduces the various elements of the income statement, enabling you to look behind the key figures. With this knowledge, you should be able to make an informed judgment on a company's performance.

Prerequisite Knowledge
Accounting – An Introduction

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Elements of the Income Statement

- Sales Revenue
- Cost of Sales
- Gross Profit
- Operating Expenses
- Interest Paid
- Exceptional and extraordinary gains
- Prior Period Adjustments
- Pre-Tax Income
- Taxes
- Net Income
- Dividends
- Net Income Available to Shareholders

Topic 2: Ratio Analysis

- Profitability Ratios
  - Gross Profit Margin
  - Net Profit Margin
  - Return on Capital Employed
- Activity Ratios
  - Inventory Turnover Ratio
  - Accounts Receivable Collection Period
  - Accounts Payable Period
  - Asset Turnover Ratio
- Investors Ratios
  - Earnings per Share
  - Price Earnings Ratio

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 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 II & Basel 2.5

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

- Describe why banks need capital
- Explain the difference between solvency and liquidity
- Outline the evolution of regulatory capital requirements from the 1988 Basel Capital Accord (Basel I) to the "three pillars" approach of Basel II and the subsequent amendments made under Basel 2.5
- Describe the minimum capital requirements as set out in Pillar 1
- Explain the purpose of the supervisory review process as set forth in Pillar 2
- Outline the disclosure requirements mandated by Pillar 3

Tutorial Overview
Regulatory capital requirements have evolved over time in an attempt to adequately guard against unexpected losses arising from various risks generated by financial institutions. From simple beginnings in the 1980s, the regulations have become ever more sophisticated in an attempt to capture the increasing subtleties of credit, market, and operational risk. Yet it would seem that such developments were insufficient to deal with an event on the scale of the global financial crisis.

This tutorial describes the concept of capital adequacy and how the Basel requirements in relation to this have progressed from the simplicity of the original Basel capital accord (Basel I) in 1988 to the more sophisticated requirements of Basel II and Basel 2.5. All three “pillars” are covered – the minimum capital requirements set out in Pillar 1, the Pillar 2 supervisory review process, and the disclosure requirements mandated by Pillar 3.

Prerequisite Knowledge
Banking Regulation – An Introduction

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Evolution of Basel II

- Why Do Banks Need Capital?
- Capital, Solvency and Liquidity
- Capital as a Loss Absorber
- Economic versus Regulatory Capital
- Capital: An Analogy
- Basel I
  - How Risky is an Asset?
- What is Capital?
  - Tier 1
  - Tier 2
  - Tier 3
- What Represents a Sufficient Capital Ratio?
  - CAR: Example
- From Basel I to Basel II
- Basel II Implementation
- The Three Pillars

Topic 2: Pillar 2 (Minimum Capital Requirements)

- Pillar 1
- Credit Risk
  - Standardized Approach (SA)
  - Internal Ratings-Based (IRB) Approach
- Securitization
- Basel II

- Basel 2.5
- Credit Risk Mitigation
- Market Risk
    - Standardized Measurement Method
    - Internal Models Approach
    - Revisions to Market Risk Framework (Basel 2.5)
- Operational Risk
    - Basic Indicator Approach (BIA)
    - The Standardized Approach (TSA)
    - Advanced Measurement Approaches (AMA)
- CAR: Formula

Topic 3: Pillar 2 (Supervisory Review)

- The Need for Pillar 2
- Four Principles
- Supplemental Pillar 2 Guidance (Basel 2.5)

Topic 4: Pillar 3 (Market Discipline)

- The Importance of Disclosure
- What Areas Require Disclosure?
- Strengthening Pillar 3 Requirements
    - Basel 2.5
    - Basel III

Basel III – An Introduction

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

- Explain some of the reasons why major changes to the Basel II requirements were deemed to be necessary
- Describe the most important changes set out by Basel III, such as capital adequacy, leverage, and liquidity
- Outline some of the key implementation issues in relation to Basel III, including the need for an extended implementation period

Tutorial Overview
The financial crisis highlighted that the quantity and quality of bank capital was inadequate, despite the extensive changes introduced in Basel II. In addition, the crisis underlined the need for regulators to address not simply capital adequacy but also liquidity and leverage. This is what is being done through the development and implementation of Basel III.

This tutorial explains in detail how Basel III changes the nature of previous capital adequacy regimes. It also examines other areas addressed by Basel III, such as liquidity standards and leverage rules.

Prerequisite Knowledge
Basel II & Basel 2.5

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: The Need for Basel III

- Impact of the Financial Crisis
  - Capital Injections
  - Beyond Capital Injections
  - Too Big to Fail
- Shortcomings of Basel II
  - Underestimated Risk
  - Lack of Liquidity Provisions
  - Lack of Leverage Restrictions
  - Procyclicality

Topic 2: Key Components of Basel III

- Basel III Timeline & Key Documents
- What is Basel III?
  - BCBS Description
- Key Components of Basel III
  - Capital Standards
  - Basel 2.5 & Enhanced Risk Coverage
  - Leverage Ratio
  - Liquidity Standards
    - Liquidity Coverage Ratio (LCR)
    - Net Stable Funding Ratio (NSFR)
- Systemic Risk
  - Globally Systemically Important Banks (G-SIBs)
  - Systemically Important Financial Institutions (SIFIs)
  - Additional Tools

Topic 3: Implementation of Basel III

- Transitional Arrangements
- Global Coordination
- Economic Cost
- Meeting the New Capital Adequacy Requirements

  - Reducing RWAs
  - Capital Raising
- Beyond Basel III
  - Ring-Fencing of Banking Businesses
  - Balance Sheet Levies
  - Bank Transaction Tax ('Tobin Tax')
  - Single European Regulator
  - Compensation Controls
  - Dodd-Frank Act

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?

Basel III – Risk Coverage

Tutorial Description
Objectives
On completion of this tutorial, you will be able to describe the expanded risk coverage of the Basel framework, detail why the changes were needed, and outline their impact. Specifically, the tutorial describes the changes made with respect to:

- Securitizations
- Trading book treatment
- Counterparty credit risk (CCR)
- Central counterparties (CCPs)

Tutorial Overview
Trading losses during the financial crisis were larger than expected because risks were not recognized, were not measured accurately, or were understated. For instance, external credit ratings did not accurately reflect the underlying risks and there was undue reliance placed on these ratings by investors. There were also problems with capital calculation methodologies which did not take into account risks such as credit grade migration, loss of liquidity, and tail risks. Other issues included various incentives for regulatory arbitrage, significant procyclicality affects, and weaknesses with OTC trading.

This tutorial describes how the Basel Committee on Banking Supervision (BCBS) responded to these issues by updating and expanding risk coverage in a number of different areas.

Prerequisite Knowledge
Basel III – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Securitization
- Securitization Market Pre-Financial Crisis
- Securitization & the Financial Crisis
- Lessons from the Financial Crisis
    - External Credit Ratings
    - Deficiencies in Capital Requirements
- Changes to Securitization Requirements
- Future Securitization Developments

Topic 2: Trading Book
- Lessons from the Financial Crisis
    - Banking/Trading Book Boundary
    - Liquidity Assumptions
    - Weaknesses in Risk Measurement
- Default Risk & Migration Risk
- Incremental Risk Charge (IRC)
- Correlation Trading & The Comprehensive Risk Measure (CRM)
- Stressed VaR (SVaR)

Topic 3: Counterparty Credit Risk (CCR)
- CCR & The Financial Crisis
- Wrong-Way Risk
    - General Wrong Way Risk
    - Specific Wrong Way Risk
- Exposure at Default (EAD)
    - Effective Expected Positive Exposure (EEPE)
    - Alpha
- Credit Value Adjustment (CVA)

- Asset Value Correlation
- Enhancements to the CCR Management Framework

Topic 4: Central Counterparties (CCPs)

- What are CCPs?
- CCPs & OTC Risk
- CCPs & Basel III

Basel III – Liquidity & Leverage

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

- Describe the lessons learned from the financial crisis with respect to liquidity and leverage
- Explain how the Liquidity Coverage Ratio (LCR) is determined, including the calculation of high quality liquid assets (numerator) and net cash outflows (denominator)
- Explain how the Net Stable Funding Ratio (NSFR) is calculated and the difference between available stable funding (numerator) and required stable funding (denominator)
- Outline the need for a leverage ratio and the formula used to calculate it
- Detail the implementation issues and timeline associated with all of these ratios

Tutorial Overview
The financial crisis highlighted the weaknesses in the liquidity management practices of banks and the lack of adequate oversight by regulators. A key contributory factor was the aggressive growth in bank balance sheets that was largely financed by increased wholesale funding rather that longer-term retail deposits or increased capital.

In response to these issues, the Basel Committee on Banking Supervision (BCBS) introduced new measures as part of Basel III to address both liquidity risk and leverage. This tutorial describes the Basel III liquidity and leverage ratios, details the implementation issues, and outlines the potential impact on banks.

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: 60 minutes

Tutorial Outline:
Topic 1: The Financial Crisis, Liquidity Risk & Leverage

- Liquidity Risk & Liquidity Risk Management
- Developments that Affected Liquidity Risk
  - Capital Market Funding
  - Securitization
  - Complex Financial Instruments
  - Collateral
- Leverage & Liquidity Risk
- Lessons Learned
- Regulatory Response

Topic 2: Liquidity Coverage Ratio (LCR)

- Objective of the LCR
- How is the LCR calculated?
- High Quality Liquid Assets (HQLAs)
  - Tiered Approach
- Cash Flow Measurement
- Implementation
  - Timeline
  - Issues

Topic 3: Net Stable Funding Ratio (NSFR)

- Objective of the NSFR
- How is the NSFR Calculated?
- What is Stable Funding?

    - Available Stable Funding (ASF)
    - Required Stable Funding (RSF)
- Implementation
    - Timeline
    - Issues

Topic 4: Leverage Ratio

- The Need for a Leverage Ratio
    - Advantages
    - Disadvantages
- How is the Leverage Ratio Calculated?
- Implementation
    - Timeline
    - Issues

Basel III – Pillar 2 & Pillar 3

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

- Explain the purpose of the three pillars approach adopted by the Basel Committee on Banking Supervision (BCBS)
- Describe the requirements for banks and regulators under Pillar 2 and the associated implementation issues
- Detail the disclosure requirements under Pillar 3 and the implementation challenges for banks

Tutorial Overview
The three pillars approach was introduced under Basel II to ensure that, in addition to specific capital requirements for credit, market, and operational risk (Pillar 1), there was a means to assess other risks and capital adequacy (Pillar 2) and to improve market discipline through increased disclosure (Pillar 3).

Since the financial crisis, the BCBS has issued updated guidance on Pillar 2 and increased disclosure requirements under Pillar 3 to ensure there is more effective and consistent implementation by banks and regulators globally.

The tutorial explains the requirements of Pillars 2 and 3, details the changes introduced by the BCBS, and explains their impact and implementation issues.

Prerequisite Knowledge
Prior to studying this tutorial, you should have a broad understanding of the Basel requirements as described in the following tutorials:

Basel II & Basel 2.5
Basel III – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: The Three Pillars Approach

- The Three Pillars
  - Pillar 1 (Minimum Capital Requirements)
  - Pillar 2 (Supervisory Review)
  - Pillar 3(Market Discipline)
- Evolution & Implementation of the Three Pillars Approach
- Post- Crisis Enhancements
  - Supplemental Pillar 2 Guidance
  - Revisions to Pillar 3
  - Impact

Topic 2: Pillar 2 Requirements & Implementation

- Pillar 2 Requirements
  - Principle 1 (ICAAP)
  - Principle 2(SREP)
  - Principle 3
  - Principle 4
- Pillar 2 Implementation
  - BCBS Guidance
  - Forward Capital Planning & Stress Testing
  - Implementation Issues
    - Risk Coverage
    - Capital is Not the Only Mitigant
    - Pillar 1 & Pillar 2 Overlap

        - Super Equivalence
        - Phase-In Period

Topic 3: Pillar 3 Requirements & Implementation

- Pillar 3 Evolution
- Pillar 3 Requirements
    - Legal Entity
    - Frequency
    - Location
    - Validation
    - Regulatory Enforcement
    - From Basel I to Basel II
- Pillar 3 Disclosure versus Other Disclosure Requirements
    - Accounting Rules
    - National Laws & Regulations
    - Securities Listing Requirements
- Pillar 3 Implementation
    - Data Quality
    - Comparability
    - Timing
    - Effectiveness
    - Approach to Disclosure

Bond Futures Basis

Tutorial Description
Learning Objectives
On completion of this tutorial, you will be able to:

- Define bond futures basis and identify its sources
- Recognize how basis evolves over time
- Analyze how the cheapest-to-deliver (CTD) bond changes over time

Tutorial Overview
Futures contracts are often used in fixed income markets as a risk management tool. To know how to use these instruments correctly, it is essential to understand the concept of bond futures basis. This is the difference between the futures and the cash price for an underlying government bond.

This tutorial defines bond futures basis and identifies its sources. It also describes how basis evolves over time and analyzes the changes in the cheapest-to-deliver bond.

Prerequisite Knowledge
Forwards & Futures – An Introduction
Forwards & Futures – Hedging (Part I)
Forwards & Futures – Hedging (Part II)

Tutorial Level: Intermediate
Tutorial Duration: 60 minutes

Tutorial Outline
Topic 1: Basics of Bond Futures Basics

- What is Basis?
- Sources of Basis
- Calculating Gross and Net Basis
- Factors Affecting Basis
    - Implied Repo Rates
        - Cash and Carry Arbitrage
    - Conversion Factors
        - Using a Conversion Factor
        - Cheapest-to-Deliver (CTD) Bond
    - Gross Basis
        - Net Basis
- Putting it all together

Topic 2: Evolution of Basis over the Life of a Contract

- How Basis Evolves for Different Deliverable Bonds
- Calculating the Implied Repo Rate
- Market Trends in the Implied Repo Rate

Topic 3: Cheapest-to-Deliver Bonds

- Conversion Factor Bias
    - Exchange-calculated Conversion Factors
    - Market-based Conversion Factors
- Differences between Conversion Factors
- CTD Bond Changes
- Parallel Yield Curve Shifts
- Direction of Yield Shift
- Parallel Shift Example
- Yield-to-Maturity shifts on Specific Deliverable Bonds
- Changed in Repo Rates
- Issuance of New Bonds

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

Bond Strategies – Fundamentals

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

- Understand the concept of passive and active bond portfolio management
- Develop the strategies needed to manage a bond portfolio

Tutorial Overview
Before building a bond portfolio, an investor or portfolio manager must decide on the portfolio objective and strategy. This tutorial outlines the investment management process and the passive or active strategies employed by portfolio managers to achieve their investment objectives.

Prerequisite Knowledge
Bonds – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 50 mins

Tutorial Outline
Topic 1: The Investment Management Process

- 1.Set the Investment objectives
- 2.Formulate the Investment Policy
- 3. Establish a Portfolio Strategy
- 4. Design the Optimal Portfolio
- 5. Measure and Review Performance

Topic 2: Passive Bond Strategies

- Buy and Hold
- Bond Indexation
- Stratified Sampling (Cell Approach)
- Optimization Technique
- Variance Minimization
- Portfolio Immunization

Topic 3: Active Bond Strategies

- Forecasting Interest Rates
- Identifying Misprices Bonds
- Yield Spread Strategies
- Shifts in the Yield Curve
- Non-parallel Shifts
- Bullet Strategies
- Barbell Strategies
- Bond Ladders

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: Fundamental

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: 60 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:

- Describe the different types of commodity
- Identify the main participants in the commodities market
- Explain the fundamentals of commodities trading

Tutorial Overview
Commodities are raw or partly refined materials that are used to make the products that we use every day. Examples include oil, metals, and agricultural commodities. Some commodities, such as wheat and cotton, are essential to life, while others, such as gold and oil, support the quality of life.

The commodities market is huge, with billions of dollars being traded daily on the world's commodity markets. This tutorial takes a detailed look at all the primary commodity types and the exchanges where they are traded. It identifies the main participants in the commodities market and explains the fundamentals of commodities trading.

Prerequisite Knowledge
Financial Markets – An Introduction

Tutorial Level: Introductory
Tutorial Duration: 75 mins

Tutorial Outline
Topic 1: Types of Commodity

- Agricultural Commodities
  - Grains
  - Livestock/Meat
  - Softs
- Metals
  - Base Metals
  - Precious Metals
- Energy
  - Oil
  - Natural Gas
  - Electricity
  - Coal
- Emissions

Topic 2: Participants in the Commodities Market

- Market Participants
  - Producers
  - Consumers
  - Traders
  - Financial Institutions
  - Dealers
- Trading Activity
  - Hedgers
  - Speculators
  - Arbitrageurs

Topic 3: How are Commodities Traded?

- Methods of Commodities Trading
  - Trading Pits
  - Electronic Trading
- Forwards/Futures Prices
- Calculating the Basis
- Convenience Yield
- Trading Venues

Convertibles – An Introduction

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

- Define a convertible bond
- Explain the mathematical terms associated with convertibles
- Outline the special provisions that can be included in the terms of a convertible
- List and describe the different convertible variants

Tutorial Overview
Convertible bonds are interest-bearing securities that give the holder the option of surrendering (converting) the bond for a pre-determined amount of stock (usually the issuer's). Convertibles permit issuers to raise finance at a lower financing cost, yet offer investors a higher income than dividends on the underlying stock, as well as offering a conversion privilege.

This tutorial looks at the most common types of convertibles and the motivations for issuing and investing in them. The mathematics of convertibles and their special provisions are also presented.

Prerequisite Knowledge
Bonds – An Introduction
Bonds – Primary & Secondary Markets
Equity Derivatives – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 90 mins

Tutorial Outline

Topic 1: What is a Convertible?
- What is Convertible?
  - Convertible Bonds
  - Convertible Preferred Stock
- Why Issue Convertibles
  - Lower Financing Costs
  - Premium
  - Wider Investor Base
- Why Invest in Convertibles
  - Safety of a Bond
  - Hedge
  - Yield

Topic 2: Mathematics of Convertibles
- Mathematics of Convertibles
  - Conversion Ratio
  - Conversion Price (Par Conversion Price)
  - Market Conversion Price
  - Conversion Value (Parity value)
    Conversion Premium Ratio
  - Breakeven Ratio
- Example of a Convertible

Topic 3: Provisions of Convertible Bonds
- Provisions of Convertible Bonds
- Issuer Call
- Call Protection
  - Hard call
  - Soft Call
- Investor Put Dilution and Stock Splits

- Accrued Interest

Topic 4: Convertible Bond Variations

- Convertible Bond Variations
  - Contingent Convertible (CoCo)
  - Discount Convertible
  - Zero Coupon Convertible
  - Exchangeable Convertible
  - Mandatory Convertible
  - Convertibles with Reset Features
  - Busted Convertibles
  - Synthetic Convertibles

Convertibles – Introduction to Convertible Valuation

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

- Understand the factors that affect convertible prices
- Outline the basic concepts in the valuation of convertible bonds

Tutorial Overview
Convertible bonds are hybrid instruments with characteristics of both traditional bonds and equities. Valuation of convertibles reflects this dual nature. A convertible can be seen as a combination of a non-convertible bond and a call option. When this option is out of the money, the convertible trades (and is valued) as a non-convertible bond. When the option is deep in the money, the convertible will trade and be priced as the underlying stock. Pricing a convertible that is at the money is more complex and requires the use of sophisticated option pricing methods.

This tutorial outlines how convertibles are priced and also the factors that influence their prices.

Prerequisite Knowledge
Convertibles – An Introduction
Options – Introduction to Option Valuation

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Factors that influence the Price of a Convertible

- Underlying Stock Price
- Maturity
- Interest Rates Dividend Yield
- Volatility
- Credit Rating
- Investor Call Protection
- Investor Put
- Liquidity

Topic 2: Valuation of a Convertible

- Bond Value and Lower Bounds on the Convertible Price
- Straight Bond Value (Investment Value)
- Corporation Performing Well
- Corporation in Financial Distress
- Conversion Value
- Convertible Bond and Premium
- Risk Premium
- Conversion Premium
- Convertible Price Behavior

Topic 3: Convertible Price Sensitivity: Parity Delta and Gamma

- Parity Delta
- Parity Gamma
- Valuing the Embedded Call Option of a Convertible
- Convertible Bond Valuation and Call and Put Options

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: 60 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
    - Sept 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 – 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: 60 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 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: 60 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

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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 – An Overview

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

- Identify the purpose of corporate valuation and distinguish between various valuation methodologies
- Calculate key valuation and financial performance measures
- Normalize the income statement for non-recurring items

Tutorial Overview
The ultimate purpose of any firm is the creation of wealth or value for its owners (shareholders). Value creation is the key to the well-being of every organization. Therefore, if firms are to achieve the ultimate goal of maximizing value, then understanding valuation is extremely important. This tutorial introduces the concept of corporate valuation and describes in detail the concepts of equity value and enterprise value which are commonly used as measures of a company's valuation.

Prerequisite Knowledge
Prior to studying this tutorial, you should have a basic knowledge of financial statements and financial statement analysis.

Tutorial Level: Intermediate
Tutorial Duration: 60 mins
Author: Training the Street

Tutorial Outline
Topic 1: Overview of Corporate Valuation

- What is Valuation?
- Key Valuation Questions
    - What is the Company worth?
    - What will someone pay for the company?

Topic 2: Key Valuation & Financial Performance Measures

- Equity Value & Enterprise Value
- Calculating Equity Value
- Calculating Enterprise Value
- EBIT
  EBITDA

Topic 3: Normalizing Financials

- Normalizing Financials – Introduction
- Problems arising from Adjusting for Non- recurring items

Corporate Valuation – Public Comparables Analysis

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

- Describe the use of public comparables in corporate valuation, including the criteria and methodology used in choosing a public comparables group list
- Perform the mechanics of spreading public comparables
- Calculate equity and enterprise value multiples for companies in a peer group
- Analyze public comparables and multiples

Tutorial Overview
Public comparables analysis is a valuation technique used by finance practitioners and professionals when attempting to derive the relative value of a company compared to publicly traded peers. It is one of two methods to determine the relative value of a company – the other, acquisition comparables analysis, is based on precedent transactions in a given industry and is covered in detail in another tutorial.

In this tutorial, you will learn how to perform the mechanics of public comparables analysis. This includes determining the companies in a particular peer group, sourcing public information and calculating multiples.

Prerequisite Knowledge
Prior to studying this tutorial, you should have a basic knowledge of corporate valuation as described in the following tutorial:

Corporate Valuation – An Overview

Tutorial Level: Intermediate
Tutorial Duration: 60 mins
Author: Training the Street

Tutorial Outline
Topic 1: Overview of Public Comparables
- What is a Public Comparables Analysis?
- Multiples
  - Using Multiples
- Determining the Comparables Universe
  - Complications
- Sources to Determine a Peer Group
- Gathering Public Information

Topic 2: Mechanics of Calculating a Public Comparable
- Calculating Equity Value
  - An Example
- Calculating Enterprise Value
- Gathering Income Statement Information

Topic 3: Analysing Multiples
- Analyzing Multiples
  - An Example

Topic 4: Equity & Enterprise Value Multiples
- Creating the Correct Multiple for the Underlying Statistic
- Equity & Enterprise Performance Multiples
- Analyzing Public Comparables

Corporate Valuation – Acquisition Comparables Analysis

Tutorial Description

Objectives

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

- Describe the use of acquisition comparables in corporate valuation, including the criteria and methodology used in determining an acquisition comparables list
- Perform the mechanics of spreading acquisition comparables
- Undertake a premiums paid analysis
- Analyze acquisition multiples and impute appropriate valuation ranges

Tutorial Overview

Acquisition comparables analysis is a valuation technique used by finance practitioners and professionals when attempting to derive the relative value of a company based on precedent transactions in a given industry. In this tutorial, you will learn how to perform the mechanics of acquisition comparables analysis. This includes determining the list of comparable precedent transactions, sourcing public information and calculating multiples and premiums. Additionally, you will analyze acquisition multiples and derive implied valuation ranges.

Prerequisite Knowledge

Prior to studying this tutorial, you should have a sound knowledge of corporate valuation as described in the following tutorials:

Corporate Valuation – An Overview
Corporate Valuation – Public Comparables Analysis

Tutorial Level: Intermediate
Tutorial Duration: 60 mins
Author: Training the Street

Tutorial Outline

Topic 1:Overview of Acquisition Comparables

- What is Acquisition Comparables Analysis?
- Performing Acquisition Comparables Analysis
- Determining the Precedent Transactions
- Precedent Transactions – Questions & Complications
- Gathering Information
- Gathering Public Information
- Gathering Information on Private Target Companies

Topic 2: Mechanics of Calculating an Acquisition Comparable

- Spreading of the Acquisition
    - Calculating Offer Value
        - Calculating Offer Value – An Example
        - Options
    - Calculating Transaction Value
    - Gathering Income Statement Information
- Complications with Acquisition Comparables

Topic 3:Premiums Paid Analysis

- Calculating the Premium
- Unaffected Share Price

Topic 4: Analysing Acquisition Multiples

- Analyzing Multiples
- Analyzing Multiples – Influences
- Analyzing – Synergies
- Analyzing Multiples – An Example Analyzing Multiples – EBITDA Multiple
- Imputing Valuation Ranges
- Imputing Valuation – An Example

Corporate Valuation – Discounted Cash Flow (DCF) Analysis

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

- Describe the theoretical basis of a discounted cash flow (DCF) analysis, including the advantages and other considerations
- Estimate and calculate a discount rate (typically, the weighted average capital of cost) used to present value cash flows
- Calculate the terminal value of a company through two popular methodologies (exit multiple and perpetuity growth)
- Perform a discounted cash flow valuation
- Summarize valuation ranges with comparables analyses and DCF

Tutorial Overview
Discounted cash flow (DCF) analysis is a valuation technique used by finance practitioners and professionals when attempting to derive the intrinsic value of a company based on projected cash flows. In this tutorial, you will learn how to perform the mechanics of discounted cash flow analysis. This includes determining a discount rate, calculating projected cash flows, computing terminal value, and valuing a company based on DCF analysis.

Prerequisite Knowledge
Prior to studying this tutorial, you should have a sound knowledge of corporate valuation as described in the following tutorials:

Corporate Valuation – An Overview
Corporate Valuation – Public Comparables Analysis
Corporate Valuation – Acquisition Comparables Analysis

Tutorial Level: Intermediate
Tutorial Duration: 60 mins
Author: Training the Street

Tutorial Outline
Topic 1: Overview of DCF Analysis
- What is a discounted cash flow analysis?
- Performing a DCF Analysis
- Advantages of a DCF Valuation
- Considerations in a DCF Valuation

Topic 2: Weighted Average Cost of Capital (WACC)
- What is WACC?
- WACC Components
    - Cost of Equity
    - Cost of Debt
    - Marginal tax rate and market value of debt and equity
- Derivation of WACC

Topic 3: Discounting Free Cash Flows and Terminal Value
- Projecting Unlevered Free Cash Flows
- Discounting Projected Unlevered Free Cash Flows
    - Basics of the Time Value of Money
- Terminal Value
    - Exit Multiple Method
    - Perpetuity Growth Method
    -

Topic 4: Summarising Valuation Ranges
- Valuation Ranges
- Comparing Valuation Ranges

Topic 5: Deriving a Discounted Cash Flow Valuation

- Deriving a DCF Valuation
- Deriving a DCF Valuation – Example

Corporate Valuation – Merger Consequences Analysis

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

- Recognize the importance of affordability analysis by evaluating the possible accretion/dilution and the impact on the acquirer's credit rating
- Describe the fundamentals of purchase accounting, especially the creation of goodwill
- Calculate the EPS impact of a transaction and the possible impact on credit statistics
- Evaluate whether a transaction is accretive or dilutive by comparing the acquirer's price/earnings (P/E) multiple to the offer P/E multiple
- Outline other common complexities and considerations that arise in merger consequences analysis

Tutorial Overview
Merger consequences analysis is often referred to as an affordability analysis because it is used to determine what an acquirer could pay for a possible target. In this tutorial, you will learn how to perform the mechanics of a merger consequences analysis. This includes determining the proposed transaction's impact on EPS (accretion/dilution) and credit statistics.

Prerequisite Knowledge
Prior to studying this tutorial, you should have a basic knowledge of corporate valuation as described in the following tutorial:

Corporate Valuation – An Overview

Tutorial Level: Intermediate
Tutorial Duration: 60 mins
Author: Training the Street

Tutorial Outline
Topic 1: Overview of Merger consequences
- What is a Merger Consequences Analysis?
- Determining Affordability

Topic 2: Fundamentals of Purchase Accounting
- What is Purchase Accounting?
- Write-Ups
- Alternative Way of Calculating Goodwill
- Goodwill Creation – A Real Life Example
- Convergence of Global Accounting Standards

Topic 3: Transaction Adjustments
- 100% Stock Purchase
- 100% Cash Purchase
- Balance Sheet Affordability
    - Pro Forma Debt
    - Pro Forma Interest Expense
    - Pro Forma EBITDA

Topic 4: Other Analyses & Considerations
- What are other Analyses & Considerations?
    - Combination of Cash & Stock
    - Impact of Synergies on Pro Forma Earnings
    - Incremental Depreciation or Amortization from Write-Ups
    - Exchange Ratio Analysis
    - Pro Forma Ownership
    - Tax Considerations (US Corporate Tax Law)
    - Qualitative Issues

Topic 5: Relative P/Es

- What are Relative P/Es?
- Relative P/Es – An 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: 60 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 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 o 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

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

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

Equities – Research & Valuation

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

- Separate a company's return on equity into a number of key financial metrics in order to identify where within the firm superior/inferior return is being earned
- Describe the different models used to estimate the fundamental value of a stock

Tutorial Overview
Fundamental analysis of stock markets has a broad scope, incorporating both a qualitative and quantitative assessment of companies, in attempt to derive an intrinsic value for the stocks. While a qualitative assessment is essential, it naturally incorporates factors that are difficult or impossible to quantify.

This tutorial focuses on the quantitative side of things. Ratio analysis, the subject of the first part of the tutorial, is one form of quantitative assessment. It provides a way of summarizing a large volume of financial accounting information into simple measurements. The second part of this tutorial looks at stock valuation models, beginning with the oldest and simplest method of valuing stocks - the dividend discount model - which equates the fundamental value of a stock to the present value of the stock's expected future dividends. The dividend discount model is regarded by many analysts these days as conservative and outmoded, although much of the intuition from the model is also embedded in other valuation models. Two of these - the discounted cash flow model and residual income model - are also covered in this tutorial.

Prerequisite Knowledge
Equities - An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Primary Financial Ratios

- Return on Equity (ROE)
  - Return on Net Operating Assets (RNOA)
  - Return on Debt
- Solvency & Liquidity Measures

Topic 2: Valuation Methods & Analysis

- Dividend Discount Model (DDM)
- Discounted Cash Flow (DCF) Model
- Residual Income Model (RIM)
- Terminal Value

Equities – Returns-Based Valuation

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

- Outline the differences between return on equity (ROE) and return on invested capital (ROIC)
- Understand and apply Economic Value Added (EVA) as a technique for assessing shareholder value creation
- Identify the differences between cash returns versus accounting returns on invested capital
- Convert enterprise value into a single stock price target

Tutorial Overview
Research analysts typically focus on market multiples and discounted cash flow (DCF) techniques to derive estimates of valuation for a company. In times of economic uncertainty, however, with volatile markets and opaque forecasts, it can be extremely challenging to derive reliable estimates using these techniques.

In this tutorial, we examine alternative 'returns-based' valuation techniques, which can be used to determine how efficiently a company is using its capital resources. In particular, the concept of EVA as a method of calculating shareholder value creation is explored in detail. We demonstrate how EVA can be reconciled to the DCF valuation technique and compare the differences between accounting returns and cash returns used for discounting. Finally, we highlight what adjustments should be made to enterprise value in deriving a single stock price target.

Prerequisite Knowledge
Equities – Research & Valuation
Corporate Valuation – Discounted Cash Flow (DCF) Analysis

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: ROE and ROIC

- ROE and ROIC
- ROE and the Cost of Equity
- ROE/ROIC and Financial Institutions

Topic 2: Economic Value Added

- Calculating EVA Using Accounting Data
- EVA And Value Drivers
- EVA and Market Value Added (MVA)
- Equivalence of EVA and DCF
- Criticisms of the EVA Methodology

Topic 3: Cash Returns and Accounting Returns

- Cash Returns and Accounting Returns
- Cash Flow Returns on Invested Capital (CROIC)

Topic 4: Enterprise Value and he Single Stock Price Target

- Using Enterprise Value to Estimate the Single Stock Price Target

Equity Derivatives – An Introduction

Tutorial Description
Objectives
On completion of this tutorial, you will be able to describe the structures and applications of:

- Stock options and futures
- Convertibles and warrants
- Stock index options and futures
- Synthetic equity derivative structures, including contracts for difference
- Structured equity derivative products

Tutorial Overview
An equity derivative is a derivative whose underlying instrument is a stock or stock index. Hence, the value of an equity derivative is a function of the value of the stock or index. The market for equity derivatives continues to expand with new product structures constantly appearing. This tutorial introduces the most important equity derivatives, including stock options, stock index futures and options, warrants and convertibles, structured and synthetic equity derivatives.

Prerequisite Knowledge
Options – An Introduction
Forwards & Futures – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Stock Options and Futures
- Stock Options
- Stock Futures

Topic 2: Synthetic Equity Derivative Structures
- Equity Swap
- Equity Linked Securities
- Contracts for Difference

Topic 3: Convertibles and Warrants
- Convertibles
- Warrants

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: 60 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

Estimating Volatility

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

- Recognize the significance of market volatility and some indicators of this volatility
- Outline the main methods for estimating volatility

Tutorial Overview
In simple terms, the concept of volatility refers to an asset's degree of unpredictable price change over a specified period of time. The more volatile an asset, the more difficult it is to predict where its price might be on a future date, and hence the greater the risk associated with the asset.

Volatility reached unprecedented levels in many markets in 2008 and huge losses were incurred by many market participants. This tutorial looks at the concept of volatility and how it is assessed and estimated, with particular emphasis on the market volatility of 2008.

Prerequisite Knowledge
Options – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Overview of Volatility

- What is Volatility?
- Why is Volatility Important?
- Stock Market Volatility
- Other Indicators of Stock Market Volatility
- Bond Market Volatility
- Currency Volatility
- Commodity Market Volatility
- The Impact of Volatility – Case Studies

Topic 2: Approaches to Volatility Estimation

- Historical Volatility
  - Estimating Simple Historic Volatility
  - Considerations in Using Historical Volatility
  - EWMA Model
- Volatility Modelling
  - ARCH Models
  - GARCH Model
- Implied Volatility

Exchange-Traded Funds (ETFs)

Tutorial Description
Although stock market indices have been around since the 19th century, the idea of index investing is far more recent. The concept was boosted significantly by the launch of exchange-traded funds (ETFs) in the early 1990s. After a relatively slow start, ETFs have subsequently grown to become a worldwide phenomenon.

In line with increases in both the number and size of ETFs, the complexity and sophistication of the funds has also grown. For the first decade or so of their existence, ETFs were based almost exclusively on benchmark stock indices. Sector-based ETFs then emerged, while diversification into new asset classes – such as fixed income, real estate, and commodities – gathered pace. The next generation included more controversial products such as leveraged and actively managed ETFs, while new and innovative structures continue to emerge from ETF sponsors today.

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topics covered in this course include:

- The creation and redemption process for ETFs
- The key features of ETFs that makes them such an attractive investment vehicle for many investors
- The evolution of the ETF market and its development worldwide
- The different types of equity (stock) ETFs, from traditional broad market index funds to more contemporary smart beta ETFs
- Other ETF asset classes, including fixed income (bond), commodity, real estate, and currency exchange-traded products

This course is designed for:
- new or recent recruits to the options desk
- dealers/traders
- portfolio managers
- treasury department staff
- sales and marketing executives
- finance and accounting staff
- IT staff
- compliance and regulatory staff

Financial Markets – 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 paid
    - 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
Bonds – 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: 60 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 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
Equities – An Introduction
Equities – Issuing

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Market Overview
- History
- Market Capitalization
- Hong Kong Markets
    - Main Board
    - Growth Enterprise Market (GEM)
- Securities Traded
    - Red Chips
    - H Shares
    - A Shares & B Shares

Topic 2: Listing, Trading, & Settlement Procedures
- Listing Sponsors
- Listing Timeline
- Listing Requirements
- Trading Operations – Trading Hours
- Trading Procedures
- Trading Systems
- Trading Rules
- Trading Lot & Minimum Bid Size
- Charges, Fees & Taxes
- Clearing & Settlement

Interest Rate Risk – Identification & Measurement

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

- Identify the key sources of interest rate risk for a banking business
- Describe how gap and duration measurements are used to quantify the extent of interest rate risk from different perspectives

Tutorial Overview
Historically banking was seen as a simple business, but things have changed in recent times. As new products and services appear in the industry, they are affected by interest rates in different ways. For much of the 20th century, interest rates in major economies were docile creatures. There was little variation in absolute rates, and the term structures (yield curves) were mildly positive. More recent decades saw a dramatic change. Rates and curves became much more volatile, and yield curves would move from positive to negative (or vice versa) in short periods of time.

This tutorial – the first of two on managing interest rate 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 interest rate risk and the various approaches to such management.

Prerequisite Knowledge
Risk – Measurement & Management

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Identifying Interest Rate Risk

- Combinations are the Key
- Identifying Interest Rate Risk – Assets
  - Term Loans
  - Retail Credit
  - Mortgages
- Identifying Interest Rate Risk – Liabilities
- Combinations in Action
  - Fixed vs. Variable
  - Variable vs. Variable

Topic 2: Measuring Interest Rate Risk

- Income Gap Reporting
- Problems with Income Gap Reports
- Income vs. Value
- Calculating Market Value
- Economic Value of Equity (EVE)
- EVE- Sensitivity to Interest Rates
- Duration
- Convexity
- Some Properties of Duration
- Duration of Portfolios
- Duration Gap
- DGAP and EVE – Example
- Problems with DGAP
- Dynamic Measurement Approaches
- Scenario Analysis

Interest Rate Risk – Management

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

- Describe how most banks attempt to centralize the process of managing interest rate risk through a treasury function, which adopts both passive and active approaches to handling this risk
- Outline how derivative instruments are used to hedge interest rate risk

Tutorial Overview
Interest rate risk is a phenomenon that is integral to the nature of banking. It is not always desirable to eliminate this risk, even if it is possible to do so, because banks would be denying themselves opportunities and hampering their ability to handle customer business profitably.

This tutorial looks at the structures banks put in place to manage interest rate risk and the various approaches to such management – from 'passive' responses such as the imposition of limit systems to 'active' responses involving hedging rate risk via derivatives.

Prerequisite Knowledge
Interest Rate Risk – Identification & Measurement
Derivatives – An Overview

Tutorial Level: Intermediate
Tutorial Duration: 50 mins

Tutorial Outline
Topic 1: Overview of Managing Interest Rate Risk

- Treasury
- Asset Liability Committee (ALCO)
- Passive Responses – Limits
- 'Active' Responses – Hedging

Topic 2: Hedging Interest Rate Risk

- Forwards vs. Options
- Concept of Forward Rates
- Forward Rate Agreements (FRAs)
- Interest Rate Futures
- Interest Rate Swaps
    - Basis Swaps
- Options

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
Derivatives – An Overview

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

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
        - Stanstill Agreement
        - Litigation
        - Pac-Man Defense
        - Exclusionary Self-Tender
- Classifications of Mergers
    - Horizontal Mergers
    - Vertical Mergers
    - Conglomerate Mergers
- Diversitites (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 an 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

Money Market Securities – An Introduction

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

- Recognize how treasury bills carry the least risk of all money market instruments
- Classify commercial paper as being an instrument that is issued at a discount and name the type of facility used to back up short-term commercial paper
- Identify the concerns of investors in certificates of deposit
- Interpret the significance of bankers' acceptances being backed by trade receivables

Tutorial Overview
Money market instruments are a very important subset of the capital markets. They offer short-term investors liquidity and (usually) high credit quality, but at a lower yield than is available in the bank deposit market. There are interest bearing and discount instruments to suit varied requirements.
This tutorial describes the essential features of Treasury bills, certificates of deposit, commercial paper and bankers' acceptances. We will examine the nature of these products, their features, how they are used, and their usefulness in today's markets.

Prerequisite Knowledge
Money Markets – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 minutes

Tutorial Outline
Topic 1: Government (Treasury) Bills

- Government Borrowings
- Government (Treasury) Bills
- Need for Treasury Bills
- Maturity Dates of Treasury Bills
- Auctioning Treasury Bills
    - US Treasury Bills
    - UK Treasury Bills
- Primary & Secondary Markets

Topic 2: Commercial Paper

- Commercial Paper (CP): Definition
- Features of CP
- Buyers of CP
- Issuers of CP
- Issuing CP
- Asset-Backed Commercial Paper (ABCP)
- Parties in an ABCP Program
- Issuing of ABCP
- ABCO Conduits
    - Single-Seller Conduits
    - Multi-Seller Conduits
    - Security-Backed Conduits
- Credit Ratings
- Certificates of deposit
- Bankers' acceptances

Topic 3: Certificates of Deposit

- Overview of Certificates of Deposit
- Bid & Offer Prices
- Types of CDs
- Retail Vs. Negotiable CDs
- Credit Issues

Topic 4: Bankers’ Acceptances

- Overview of Bankers’ Acceptances
- Secondary Market for Bankers’ Acceptances
- Issuing Bankers’ Acceptances
- Features of Bankers' Acceptances

NPV & IRR

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

- Determine the best set of cash flows from different investment alternatives by calculating the net present value (NPV) of the investment opportunities
- Calculate the internal rate of return (IRR) on an investment and use this in conjunction with NPV to decide between investment alternatives
- Explain how reinvestment assumptions affect a decision based on IRR
- Understand the concepts of the payback period and the discounted payback period as alternatives to NPV and IRR

Tutorial Overview
When investing, borrowing, or making other economic decisions, it is important to be able to compare alternative opportunities using an objective yardstick, regardless of the pattern of the cash flows that result from each opportunity.

The purpose of this tutorial is to provide a framework for analyzing alternative investments. Using the fundamental concepts of present value and discounting, it is possible to evaluate most kinds of financial assets and liabilities in the common framework of net present value, or NPV. While NPV is not the only relevant evaluation measure, it is usually the starting point in measuring different alternative investments, and the one to which most other measures of investment value relate.

Prerequisite Knowledge
Time Value of Money

Tutorial Level: Fundamental
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Net Present Value (NPV)
- What is NPV?
- NPV- Example
- NPV & Mutual Exclusivity
- Additvity of NPVs

Topic 2: Internal Rate of Return (IRR)
- What is IRR?
- IRR – Example
- Choosing the Best Investment
- IRR & Reinvestment Risk

Topic 3: Payback Period
- What is the Payback Period?
- Payback Period – Example
- Discounted Payback Period

Topic 4: NPV & IRR as Decision Rules
- NPV vs. IRR
- Mutually Exclusive Investments – Example
- Choosing the Best Investment

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

Options – Beyond Black-Scholes

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

- Describe how the binomial pricing model generates an option price through discrete changes in a future asset price, and how this procedure can be used to calculate American option prices
- Explain how numerical procedures have evolved beyond the binomial pricing model
- Describe how Monte Carlo simulations can be used to calculate values for options which are outside the scope of simple Black-Scholes or lattice models

The Black-Scholes approach to option pricing, while a massive advance on what little had been seen before, contains serious shortcomings. For example, the market assumptions are somewhat unrealistic, and the pricing formulas can only value a limited number of instruments.

This tutorial examines alternative numerical methods which allow option practitioners to value a wider range of instruments, and can also incorporate different price evolution assumptions.

Prerequisite Knowledge
Options – Replication, Risk-Neutrality, & Black-Scholes

Tutorial Level: Advanced
Tutorial Duration: 90 mins

Tutorial Outline
Topic 1: Binomial Option Pricing

- The Black-Scholes Model
- Shortcomings of the Black-Scholes Model
- Intermediate Asset Levels
- The Binomial Option Pricing Model
- Up & Down States
- Extending the Tree
- Recombining Trees & Bushy Trees
- Risk- Neutral Probabilities
- Simple Option Valuation
- Simple Option Valuation – Multiple Steps
- American Options
- More Steps Equals More Accuracy
- Relationship with Black- Scholes
- Control Variety Technique
- Equal Probability Tree
- Dividends

Topic 2: Extensions to Basic Numerical Methods

- Trinomial Trees
- Barrier Options
- Adaptive Mesh
- Implied Trees
- Differing Models – Same Procedure
- Finite Differnce Method
- Scope of Simple Procedures

Topic 3: Monte Carlo Simulation

- Monte Carlo Simulation
- Improving Monte Carlo Simulation
- Monte Carlo Simulation and American Options

Options – Introduction to Option Valuation

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

- Explain when an option is 'in' or 'out' of the money
- Show how an option price is broken into two components: intrinsic value and time value
- Describe the major influences on option values
- Outline the upper and lower boundaries of option prices and explain the factors affecting the exercise decision
- Describe the 'put-call' parity relationship

Tutorial Overview
Option valuation can be (ultimately) a very complex process; considerations include the option pricing factors, the way in which an option pays out, the market processes of underlying assets, and the relationships between multiple assets. It is at this point that the subject enters the esoteric realms of advanced mathematics. However, before embarking on any complex valuation, there are a number of fundamental foundations.
This tutorial examines these matters and also outlines the way in which prices can be 'enforced' by arbitrage possibilities. This absence of 'free lunches' is fundamental to most financial markets pricing, but in particular options.

Prerequisite Knowledge
Options - An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Option Moneyness

- Overview
- Forward Prices
- Option Moneyness – Summary

Topic 2: Components of Option Value

- Option Value Before Expiry
- Time Value & Intrinsic Value

Topic 3: Factors Affecting Option Value

- Factors Affecting Option Value – An Overview
    - Interest Rates
    - Relationship between the Strike Price & Asset Price
    - Maturity
    - Volatility of the Underlying Asset
    - Effect of a rise in Volatility

Topic 4: Ongoing Position & Trade Management

- A Synthetic Purchase
- Put-Call Parity
- ATM Forward Prices
- No Arbitrage Rule

Topic 5: Option Price Limits and Exercise Decisions

- Upper Boundary for the Price of a Call Option
- Upper Boundary for the Price of a Put Option
- Lower Boundary for the Price of a Call Option (European)
  Lower Boundary for the Price of a Put Option (European)
- Boundaries of Option Pricing – Summary
- Rational Exercise of an Option
- American Options – Early Exercise (Calls)
- American Options – Early Exercise (Puts)

Options – Replication, Risk-Neutrality, & Black-Scholes

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

- Explain the concepts of the riskless portfolio and risk-neutrality
- Price simple European options using the basic Black-Scholes 'family' of option pricing models
- List the shortcomings of the Black-Scholes approach

Tutorial Overview
Although options in financial markets have a long history, it is only recently that option pricing has been seen as having a sound theoretical basis. This tutorial introduces the Black-Scholes pricing model for options, one of the most famous in modern finance. It examines the foundations of the approach, particularly the key issues of replication and risk-neutrality, and gives examples of both the basic pricing formula and the simple extensions that followed soon after. It also highlights some potential shortcomings with the approach.

Prerequisite Knowledge
Options – Introduction to Option Valuation
Options – Future Asset Prices & Volatility

Tutorial Level: Advanced
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: The Riskless Portfolio

- Problems with Option Pricing
- Riskless Portfolio
- Replicating Portfolio
- Extension to Continuous Time
- Risk-Neutrality

Topic 2: The Black-Scholes approach to Option Pricing

- The World of Black-Scholes
- The Black-Scholes Equation
- The Pricing Formulas
- Understanding the Pricing Formula
- Pricing Formula – An Example
- Simple Extensions of the Black-Scholes Model
- Merton Model
- Merton Model – An Example
- Drawbacks of the Merton Model
- Garman-Kohlhagn Model
- Black Model (Black-76 Model)
- Communication in Terms of Volatility

Topic 3: Beyond Black-Scholes

- Limited Range of Options
- The Perfect Market
- The Volatility Surface

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
Lending – An Introduction

Tutorial Level: Introductory
Tutorial Duration: 60 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
Onjectives
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 Management – An Introduction

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

- Explain how a bank is a 'risk factory' and how regulators are concerned about survival in the face of these risks
- Describe the fundamentals of the risk management process in a bank
- Outline the major categories of risk that banks must address

Tutorial Overview
Banks are in business in order to generate returns for their stakeholders. To achieve this, they must take risks and embed them in the products and services they provide. Risk management has become ever more important as the complexity of banking has increased and regulators attempt to more closely match capital with risk profiles. From a regulator's point of view, the most desirable aspect of banking is survivability rather than profitability – and the key to survivability is risk management.

This tutorial looks at the links between risk, return, and survival, in addition to outlining the main types of risk that banks face and the key elements of an effective framework for the management of these risks.

Prerequisite Knowledge
Financial Markets – An Introduction

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Risk Return and Survival
- What is Risk
- What is a Bank?
- Banking is Risk Management
- Moral Hazard
- Capital and Survival
- The Capital Conundrum

Topic 2: Risk Management Framework
- Organizing Risk Management
- Risk Police?
- Identifying, Measure, Manage
    - Risk Identification
    - Risk Measurement
    - Risk Management

Topic 3: Risk Types
- Where Does the Risk Come from?
    - Interest Rate Risk
        - Interest Rate Risk – Example
        - Case Study – S&Ls
    - Credit Risk
        - Case Study- WorldCom
    - Market Risk
    - Foreign Exchange Risk
        - Case Study – The Subprime Lending Crisis
    - Liquidity Risk
        - Liquidity Risk vs Solvency Risk
        - Liquidity Risk – Example
        - Case Study – Northern Rock
    - Operational Risk
        - Operational Risk – Key Categories
        - Case Study – Rogue Traders

Risk Management for Senior Executives

Tutorial Description
Objectives
Topics covered in this tutorial include:

- How risks arise in banking; certain risks are specific to financial institutions, while others are generated by any large organization
- Why it is not clear that quantitative techniques alone give sufficient guidance to senior executives when assessing the extent of various risks
- What the key roles and responsibilities of senior executives are in ensuring that an institution conducts its business in accordance with the appropriate risk tolerance parameters
- How the viewpoint of regulators often contrasts with that of banks, and places an increasing burden on banks' risk management teams

Tutorial Overview
This tutorial is designed to identify the most important aspects of bank risk management processes and show how senior executives are central both to the construction of an appropriate framework and to the leadership that generates a risk management culture.

Note that the tutorial is emphatically not a detailed description of individual risk management issues – as a senior executive, you may be comfortable with most of these issues already (if not, the detailed information is located in separate, specific tutorials). The approach in this tutorial is to provide an overview of where the key risks arise and the core management issues contained in these risks.

Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: What is Risk Management?

- Avoiding Russian Roulette!
- The Risk Management Process
- Banking *is* Risk Management

Topic 2: Where Does the Risk Come From? (Identify)

- Sources of Risk
  - Interest Rate Risk
  - Credit Risk
  - Liquidity Risk
  - Market Risk
  - Operational Risk
- Major Risks – Case Studies

Topic 3: How Much Risk Is There? (Measure)

- Risk & Uncertainty
- Probability Distributions
  - The Prize
  - The Attractions
  - The Problems
- Quantitative vs Qualitative Approaches
- Data Collection

Topic 4: How is Risk Navigated? (Manage)

- Navigating Risk
- The Importance of Leadership
- Risk Culture
- Risk Appetite
- Monitoring and Governance
- Risk Committees
  - Membership
  - Meetings

    - Objective
    - Responsibilities
- Risk Management Policies
- Risk Limits
- Risk Monitoring
- Risk Mitigation

Topic 5: Why are Banks Regulated?

- The Regulatory Perspective
- Basel Requirements
- What is Capital Anyway?
- Regulation – A Growing Burden

Risk – Measurement & Management

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

- Explain how risk measurements are used in and across different business areas and outline the major difficulties faced in measuring risk
- Describe the organizational challenges facing a bank as it deals with risk management and measurement issues and outline the key processes of risk management
- Explain how regulatory risk management affects the process for an individual bank

Tutorial Overview
Banks in recent years had been feeling increasingly sanguine about their ability to deal with risk. However, the events between 2007 and 2009 eradicated any complacency in the area. The complexities and subtleties of financial risk generated some unpleasant surprises, despite the extensive advances in the quantitative and qualitative work performed in the area. This tutorial examines the foundations of both risk measurement and management, and analyzes the increasing need for banks to pay attention to the regulatory context.

Prerequisite Knowledge
Risk Management – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Risk Measurement

- Quantitative Measurements
- Sensitivity
- Basis Risk
- Introducing Volatility
- Comparing Volatility in Different Time Periods
- Volatility Conversion Formulas
- Value at Risk (VaR) – The Whole Picture?
- VaR – The Objective
- Problems
    - Distributions
    - Time and Historical Data
    - Prices/Fair Values
    - Correlation Risk
    - Data Collection
- The Problems of Abstraction
- Qualitative Vs. Quantitative Measurement

Topic 2: Managing Risk

- Responding to Risk – Organization
- Responding to Risk – Techniques
    - Pricing (Rationing)
        - Risk-Adjusted Performance Measurement (RAPM)
    - Limits
    - Hedge/Transfer
- Risk Mitigation

Topic 3: Regulatory Context

- Big Brother is Watching
- Risk-Weighted Assets (RWAs)
- Basel I, II,..III?
- More Reports for Regulators

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
Bonds - 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/ Ussier
- 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 – CDOs - An Introduction

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

- Identify the main features of collateralized debt obligations
- Differentiate between the variants of collateralized debt obligations
- Explain issuer and investor motivations in relation to collateralized debt obligations

Tutorial Overview
A collateralized debt obligation (CDO) is a security backed by a pool of loans, bonds or other securities. A CDO deal is broken into multiple tranches, each with separate maturity and credit risk, appealing to different classes of investors. Various forms of credit enhancement are used and CDO tranches are rated by the main credit rating agencies. CDOs represented the fastest growing segment of the securitization market in the years leading up to the global financial crisis of 2007/9.

This tutorial explains how CDOs are issued and structured, and outlines the common issuer and investor motivations for entering CDO deals.

Prerequisite Knowledge
Securitization - An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Basics of Collateralized Debt Obligations
- Collateralized Debt Obligations
- The History of CDOs up to the Financial Crisis
- Issuing CDOs
- Payment Structure
- Credit Enhancement
- CDO Credit Ratings
- CDOs and Asset-Backed Securities

Topic 2: CDO Structures
- Balance Sheet and Artbitrage CDOs
- Static and Dynamic CDOs
- Cash Flow and Market Value CDOs
- Cash and Synthetic CDOs

Topic 3: Issuer and Investor Mitivations
- Issuer Motivations
- Investor Motivations
- Risks of Investing in CDOs

Securitization – Commercial Mortgage-Backed Securities

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

- Outline the structure of commercial mortgage-backed securities and describe the dynamics of the commercial mortgage-backed securities market
- Analyze the collateral characteristics of a commercial mortgage-backed security (CMBS)
- Outline the rating process for CMBS transactions

Tutorial Overview
Mortgage-backed securities can be classified as residential or commercial mortgage-backed securities (CMBS). This tutorial focuses on the CMBS market, which is more varied and complex than its residential mortgage-backed equivalent. The CMBS market grew tremendously in the years leading up to the global financial crisis, as investor appetite for real estate products increased and interest rates remained relatively low. CMBS products were pivotal in distributing risk across a wide variety of investors.

This tutorial will cover the mechanics and structures of CMBSs, the analysis of CMBS collateral, and the rating of CMBSs. As with the RMBS market, the CMBS market in the US developed much earlier, and has traditionally been the innovator of new products. In this tutorial, descriptions refer to the US CMBS market, unless otherwise stated.

Prerequisite Knowledge
Securitization - Mortgage-Backed Securities (MBS)
Securitization - European Mortgage-Backed Securities

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Mechanics & Structure of CMBS Transactions
- CMBS Transactions
- Call Protection
- CMBS Structure
- Servicing the Loans
- CMBS Market Development

Topic 2: Analyzing CMBS Collateral
- Analyzing a CMBS
- Multi-Borrower Transaction Credit Assessment
    - Weighted Average LTV Ratio
    - Debt Service Coverage Ratio
    - Lease Expiry
    - Average Tenant Quality
    - Origination & Servicing
    - Seasoning
    - Level of Diversification
- Single Property Transaction Credit Assessment
    - Cash Flow & Leverage
    - Property Valuation or Marketability
    - Capital Expenditure Requirements
    - Environment & Planning Issues
    - Loan Structure
    - Senior & Subordinated Positions

Topic 3: CMBS Ratings
- Rating Agency
    - Loan Level Analysis
    - Pool Level Analysis

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) an Principal-Only (PO) Securities
- Non-US MBS Markets
- Different Currencies
- UK Master Trust Structure
- Pool Terminology

Singapore 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 Singapore market
- Describe the listing, trading, and settlement procedures for equities in Singapore

Tutorial Overview
Singapore is one of the key financial centers in Asia, being recognized in particular as the leading global foreign exchange trading hub outside London, New York, and Tokyo. It is also a major wealth management center in the Asia-Pacific region.

Leading financial institutions and other market participants regard Singapore as a springboard to capture regional opportunities. Located at the heart of Southeast Asia, it is strategically well placed to serve the fast-growing markets of the Asia-Pacific region.

This tutorial provides a detailed introduction to the various aspects of equity securities traded in Singapore, including the history and development of the market, the different securities traded, leading stock indexes, listing requirements and procedures, and trading operations.

Prerequisite Knowledge
Equities – An Introduction
Equities – Issuing

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Market Overview
- History
- Market Capitalization
- Singapore Markets
    - Mainboard
    - Second-tier
    - Other Markets
- Securities Traded
- Stock Market Indexes
    - Straits Times Index
    - All-Sing Equities Index Series
    - MSCO Singapore Free Index)SiMCSI)
    - FTSE/ASEAN Indexes
    - FTSE ST Indexes
    - FTSE ST Indexes (new suite)
- Market Regulation

Topic 2: Listing, Trading & Settlement Procedures
- Listing Sponsors
- Listing Timeline
- Listing Requirements
- Trading Infrastructure
- Trading Hours
- Trading Rules
- Charges, Fees & Taxes
- Clearing & Settlement

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 Tarde 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 – Asset Swaps – An Introduction

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

- Define an asset swap
- Differentiate between the different types of asset swap
- Outline the different uses of asset swaps

Tutorial Overview
Asset swap is a generic term for the repackaging of an interest-bearing security using one or more interest rate swaps. The asset swap adds value for investors because it allows the repackaging of bonds issued under different market conditions, giving them par prices and floating rate coupons more or less at the current market rate. The result is a synthetic security that presents the characteristics uniquely sought by the investor.

In this tutorial, we will explain the structure of asset swaps and outline some of their uses and applications.

Prerequisite Knowledge
Swaps – An Introduction

Tutorial Level: Intermediate
Tutorial Duration: 50 mins

Tutorial Outline
Topic 1: Asset Swap Basics
- Definition of Asset Swaps
- Asset Swaps and Cross-Currency Swaps
- Typed of Asset Swap
- Risks of Asset Swaps

Topic 2: Uses & Applications of Asset Swaps
- Transforming Cash Flows
- Creating Synthetic Assets
- Credit Arbitrage
- Tax Arbitrage

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 – Differential Swaps

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

- Describe the features and characteristics of differential swaps
- Outline the main considerations in the pricing of differential swaps

Tutorial Overview
A differential swap – also known as diff swap, index differential swap, cross currency interest rate swap or quanto swap – is a variation of an interest rate swap, distinguished by the fact that at least one (and possibly both) of the payment rates refers to a currency different from that of the notional principal. By using a differential swap, a counterparty can exploit the interest rate differential between two currencies without directly incurring any exchange rate risk.

This tutorial looks at differential swaps in detail, examining their features and characteristics and showing how to price these structures.

Prerequisite Knowledge
Swaps – An Introduction
Swaps – Pricing & Valuation (Part I)
Swaps – Pricing & Valuation (Part II)

Tutorial Level: Intermediate
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Basics of Differential Swaps
- Definition of Differential Swaps
- Characteristics of Diff Swaps
- Investor View
- Diff Swap Cash Flows

Topic 2: Pricing Differential Swaps
- Basics of Diff Swap Pricing
- Hedging a Diff Swap
- Foreign Exchange Risk Management
- Hedging Strategies
- Static Hedging
- Dynamic Hedging

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 – 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

Syndicated Lending

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

- Understand the basic principles of syndicated lending
- Outline the syndication process and the players involved
- Describe the secondary market for syndicated loans

Tutorial Overview
The syndicated loan market in its current form was originally developed in the US in the 1980s as a means of financing leveraged buyouts (LBOs). Since then, the global syndicated lending market has since grown significantly, rising to USD 4.5 trillion in 2007. For lenders, syndicating a loan agreement splits the lending risk among a number of participants. It also allows for a diversification of the lending portfolio from both a geographical and sectoral point of view. For borrowers, syndicated loans are an efficient way to raise larger amounts of capital and extend their banking relationships.

This tutorial looks at the fundamentals of syndicated lending, including the syndication process, players involved, fees, and the history of the syndicated lending market.

Prerequisite Knowledge
Lending – An Introduction

Tutorial Level: Introductory
Tutorial Duration: 75 mins

Tutorial Outline
Topic 1: What is Syndicated Lending?

- Why Syndicate?
- Types of Borrower
- Investors in a Syndicated Loan
- Types of Syndicated Loan
  - Term Loan
  - Revolving Credit Facility
- Pricing
- Syndicated Lending – Main Players
- Benefits of Syndication for Borrowers and Lenders
- The History and Development of Syndicated Lending

Topic 2: The Syndicated Lending Process

- The Three Phases
  - Pre-mandate Phase
  - Post-mandate Phase
  - Post-closure Phase
- Types of Syndicated Deal
  - Underwritten Deal
  - Best-efforts Deal
  - Club Deal
- Repayment
  - Amortization
  - Balloon repayment
  - Bullet repayment
- Prepayment
- Fee income
  - Front-end fees
  - Regular fees

Topic 3: The Secondary Market for Syndicated Loans

- Why a Secondary Market?
- Secondary Market Participants
  - Market Makers
  - Active Traders/ Investors
- Types of Purchase
  - Novation
  - Assignment
  - Participation

The Lending Cycle

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

- Describe the various stages in the lifecycle of a typical loan

Tutorial Overview
The lending cycle refers to the period from the time a loan is first negotiated to when it is fully paid off. The lending cycle could be as short as one month or as long as 40 years. This tutorial takes a detailed look at the various stages of the lending cycle. It covers topics such as loan origination, negotiation and structuring, documentation, disbursement/drawdown, administration, and review. The focus is primarily on commercial/corporate lending, but retail and real estate loan examples are also provided where appropriate.

Prerequisite Knowledge
Lending – An Introduction

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Stages of the Lending Cycle

- Lending Cycle – Corporate Loan
  - Identification of Target Market
  - Loan Origination
  - Credit Analysis
  - Loan Negotiation and Structuring
  - Loan Approval
  - Documentation
  - Disbursement / Drawdown
  - Loan Administration and Review
  - Loan Repayment
- Lending Cycle – Retail Loan
  - Loan Origination
  - Loan Processing
  - Loan Underwriting
  - Loan Approval / Rejection
  - Loan Closing / Disbursement
  - Loan Servicing and Monitoring
  - Loan Repayment

Time Value of Money

Tutorial Description

Objectives

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

- Calculate the future value of an investment for a given present value and a given interest rate
- Recognize the relationship between the present value, future value, and discount factor
- Calculate the value of a perpetuity and an annuity - use the present value and future value formulas to solve for an unknown rate or number of periods, and distinguish between nominal and real interest rates

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. Similarly, a cash flow today has a value in the future known as the future value. Present value and future value are determined by the interest rate and the time period elapsed. They are crucial concepts in finance. For example, the price of a bond is the sum of the present value of all the cash flows expected to be generated by the bond in the future, the mark-to-market value of an interest swap is the sum of the present values of all the cash inflows and outflows from the swap in the future, and the value of an option is the present value of the expected payoff of the option at the exercise date.

This tutorial describes the concepts of present value and future value, and the relationship between them. It is essential for understanding the way in which securities and derivatives are priced, and how decisions are made in financial markets.

Prerequisite Knowledge

Interest Calculations

Tutorial Level: Introductory

Tutorial Duration: 60 mins

Tutorial Outline

Topic 1: Future Value

- Future Value & Time Value of Money
- Future Value – Example
- Future Value – Simple vs. Compound Interest
- Future Value – A Historical Example

Topic 2: Present Value

- Calculating Present Value from Future Value
- Present Value – Continuous Compounding
- Present Value – Continuous Compounding – Example
- Present Value of Multiple Cash Flows
    - Example 1
    - Example 2

Topic 3: Perpetuities & Annuities

- Definition of an Annuity & a Perpetuity
- Valuing Perpetuities
- Valuing Perpetuities - Another Example
- Valuing Annuities
- Valuing Annuities – Example
- Annuities – Calculating Future Value
- Relationship between Perpetuities & Annuities
- Relationship between Perpetuities & Annuities – Example

Topic 4: Present Value & Future Value – Other Considerations

- Solving for the Interest Rate and the Number of Periods
- Solving for the Rate
- Solving for the Number of Periods

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)

Trade Processing - Foreign Exchange

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

- Describe the different ways in which FX trades can be executed in the market
- Recognize the requirement for FX trades to be enriched and validated prior to settlement
- Explain the methods by which trade agreement can be reached between FX trading parties
- Describe how an FX trade is settled on the value date and the implications of settlement failure
- Recognize the need for ongoing position and trade management in relation to FX trading

Tutorial Overview
A foreign exchange (FX) transaction represents the sale of one currency against the purchase of another. The FX market is the largest and most liquid sector of the global financial markets and is the primary mechanism for making cross-border payments, transferring funds, and determining exchange rates between different currencies. This tutorial focuses on the processing of FX trades and examines the key aspects of the trade lifecycle from trade execution right through to ongoing position and trade management tasks.

Prerequisite Knowledge
Prior to studying this tutorial, you should have a fundamental understanding of trade processing as outlined in the tutorial on Trade Processing – An Introduction. You should also be familiar with FX markets and instruments as described in the course on Foreign Exchange.

Tutorial Level: Introductory
Tutorial Duration: 75 mins
Author/Reviewer: David Weiss

Tutorial Outline
Topic 1: Trade Enrichment & Validation

- Trade Enrichment
- Trade Enrichment in an Automated Environment
- Trade Figuration
- Trade Validation

Topic 2: Trade Agreement & Reporting

- Confirmation/Affirmation & Comparison/Matching
- Trade Confirmations
- Trade Reporting

Topic 3: Trade Settlement

- Settlement of FX Transactions
- Settlement & Payment Systems
    - CLS Bank
    - TARGET
    - Euro Banking Association
- Settlement Failure
- Reasons for Settlement Failure
- Netting
- Netting- Types
    - Bilateral Netting
    - Multilateral Netting
    - Netting by Novation
    - Close-Out Netting

Topic 4: Ongoing Position & Trade Management

- Nostro Account Reconciliation
- Cash Management
- Accounting

Topic 5: Trade Execution & Capture

- Foreign Exchange Transactions
- Trade Execution – Types of Order
- Trade Execution – Order Flow
- Trade Execution – Markets
- Trade Capture
- Trade Capture – From Front to Back Office

Understanding Financial Reports

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

- Identify some fundamental considerations underpinning the use of financial statements
- Recognize the significance of the notes to financial statements and other supplementary information
- Understand the value of analyst and industry reports

Tutorial Overview
Those without a financial background commonly misunderstand the reality of financial reports and tend to assume that they are statements of unquestionable fact. In practice, financial reports are very often subjective in nature in that they allow latitude to those who prepare them. Different accounting treatments allow companies to 'window dress' their financial performance, thereby portraying a healthier picture of their financial position and performance.

The focus of this tutorial is to examine the primary financial statements in context with other sources of information and beyond the pure mechanics of their creation. Only with a rounded view of the spectrum of available information can an interested party make an informed view on a company.

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

Tutorial Level: Introductory
Tutorial Duration: 60 mins

Tutorial Outline
Topic 1: Interpreting the Basic Financial Statements

- Financial Statements
  - Balance Sheets
  - Income Statement
  - Cash Flow Statement
- Earnings Management

Topic 2: Notes & Supplementary Information

- Key Areas
- Specific Reports
  - Notes to Financial Statements
  - Auditor's Report
  - Management's report
  - Annual Report

Topic 3: Analyst Reports

- Company-Specific Reports
- Sectoral/Industry Reports
- Credit Risk/Rating Reports

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
Equities – 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