

# Managing Equity Portfolios

## Why Attend

- This course is specifically designed to cover the key elements of portfolio construction for equities and equity-related products. It includes an analysis of the relative suitability of the wide variety of equity instruments available for investors with various risk appetites and investment horizons.
- A core focus of the course is a comprehensive review of the different kinds of strategic and tactical allocation strategies, returns forecasting and portfolio optimization approaches. In addition, there is an emphasis on performance attribution and numerous real-world examples of how risk management and hedging techniques can be applied to equity portfolios.

## Course Methodology

- This course utilizes presentations with abundant opportunities for collective exercises and discussions of the topics raised. Modelling tools in Excel will also be offered to participants and several case studies and research material will be provided.

## Course Objectives

By the end of the course, participants will be able to:

- Demonstrate a deep understanding of equities as an asset class
- Determine the “fair value” of equities through analyzing the different models that have been used for deriving corporate valuations
- Apply analytical skills to the value of fundamental analysis of corporate performance and equity valuation using financial statements
- Recognize the key principles and lessons from different styles of asset allocation and portfolio management, including innovative approaches following the 2007/8 financial crisis
- Demonstrate competence with equity-based derivatives and know how to benefit from their use as hedging tools

## Target Audience

- The course is ideal for those who are engaged in both the buy side and sell side of asset management and trading, and who wish to expand and refine their knowledge of global equities, the markets/platforms upon which they are traded and techniques for portfolio construction and management. It is also highly useful for fund managers whose mandate entails a significant risk exposure to emerging market equities.

## Target Competencies

- Analytical Skills
- Portfolio Management
- Asset Allocation
- Portfolio Construction

### Overview of Equities as an Asset Class

- How does equity ownership compare to other financial claims?
- Position of equity vis à vis other elements in corporate capital structure
- Review of equity capital from an accounting perspective
- Characteristics of ordinary, bearer and registered shares
- Cumulative, participating, and convertible preference shares
- Ranking for dividends and liquidation
- Overview of the primary issuance of Equity Securities
- Equity Markets and Trade Execution
- Order driven/quote driven platforms
- Warrants and Covered warrants
- Contracts for Difference (CFD's)
- Overview of equity based collective investment vehicles

### Primary Issuance, Clearing, Custody and Trading Of Equity Securities

- Listing securities – the regulatory framework, investor disclosures
- Structure and stages of an initial public offering (IPO)
- Role of intermediaries, book building, pricing
- Benefits for the issuer and investors
- Underwritten versus best efforts
- Oversubscribed issues and greenshoe options
- Role of exchanges in providing secondary market facilities, platforms
- Alternative Trading Venues
- Multilateral Trading Facilities and dark pools
- The meaning of 'books closed', 'ex-div' and 'cum div', cum, special ex, special cum, and ex rights
- Explanation of the nature and objectives of High Frequency Trading (HFT)
- Principles of Delivery versus Payment (DVP) and Free Delivery

## Global Equities Markets/Indices

- Principal indices/exchanges
- Emerging and frontier markets
- Classification systems of global equity markets – MSCI, FTSE
- Historical survey of performance of main global equity indices
- Historical P/E ratios
- Regulatory and supervisory environment
- Shareholder protections etc.
- Structure and size of markets, volumes
- Liquidity and transparency
- Trading characteristics e.g. prevalence of off exchange activities

## Financial Statement Analysis

- Purpose, structure and use of balance sheets, income statements and cash flow statements
- Key classes of Financial ratios:
- Profitability, Liquidity, Asset turnover, Gearing
- Key Investor ratios
- Earnings Per Share (EPS), P/E Ratios (historic and prospective), Price/Earnings-to-Growth (PEG) ratio
- Dividend yield, Dividend/interest cover
- Advantages and challenges of performing financial analysis
- Comparing companies across and within sectors
- Accounting for Corporate Actions
- Stock and cash dividends
- Rights issues, open offers, offers for subscription and for sale
- Calculation of theoretical effect on the issuer's share price of bonus/scrip, consolidation, rights issues

## Corporate Valuation Methods

- Fundamental equity valuation – Discounted Cash Flow (DCF) techniques
- Models based on calculating the Present Value of future dividend flows
- Simple Model
- Multi-stage model
- Comparing valuations across different sectors
- What discount rate should be used in DCF models?
- Determining the Weighted Average Cost of Capital (WACC)
- What multiples should be used for individual companies, for overall market?
- How to value high growth enterprises with no dividends
- Sustainability of profits and commercial disruptions
- Relationship of corporate valuations to underlying interest rate environment
- Return on Equity (ROE) measurements – including Risk-adjusted return on capital (RAROC)
- Risk Adjusted valuations – incorporating beta into valuation methods
- Importance of changes in the regulatory environment on valuation forecasting

## Equity Allocation and Performance Attribution

- Criteria for determining the relative allocations for equities, fixed income, alternative assets etc.
- Contribution of each to overall portfolio return
- Strategic versus tactical
- Core versus satellite holdings
- Active equity allocation – stock selection vs. passive investment
- Relative performance of active managers to benchmarks
- Performance attribution – allocation to specific securities vs. overall exposure to benchmarks
- Examination of contrasting styles of Growth vs. Value investing
- Warren Buffet's investment philosophy

## Portfolio Theory and the Risk/Return Trade Off

- Cornerstones of Capital Asset Pricing Model (CAPM)
- Securities market line (SML), beta, alpha, risk free rate etc.
- The concept of the efficient frontier
- Systematic Risk and idiosyncratic or specific Risk
- Modern Portfolio Theory (MPT) and diversification
- Markowitz model and covariance matrix analysis
- Risk Adjusted Return
- Sharpe Ratio, Sortino Ratio, Treynor Ratio, Calmar Ratio, Total Expense Ratio (TER), etc
- Risk-adjusted return on capital (RAROC)
- Difference between CAPM and Arbitrage Pricing Theory (APT)
- Active and passive strategies – index tracking, stock picking, transaction costs
- Hedging and use of derivatives in risk management
- Survivorship bias phenomenon

## Risk Budgeting

- Explanation of risk premia – excess return or compensation for not holding riskless assets
- Risk as a scarce resource and how to allocate exposures according to risk premia and expected returns
- Statistical distributions for modelling probability structures
- Benchmarks and tracking errors – active versus passive risk
- Recognizing importance of drawdowns - holding periods, needs for liquidity
- Expected returns from a risk-budgeting perspective
- Obligations to market – trading book, Basel III approaches
- Calculations and mechanics of standard deviation / tracking error/  $M^2$  / beta
- Risk/Return ratios and their implications in the risk budgeting process:
- Sharpe, Treynor, Information, Jensen's Alpha, Calmar, Martin Ratio, Sortino Ratio
- Value at Risk – methodologies, Expected Shortfall, Extreme Value Theory

## Exchange Traded Funds (ETF's)

- Compare availability and range of ETF's traded on US, European platforms
- Number of funds, assets under management, growth trajectories
- Contrast features of ETF's to other collective investment vehicles (CIV's)
- Fiduciary/trust architectures, role of sponsors, creation units
- Contrast passive index tracker ETF's (the majority) with actively managed funds
- Examination of MSCI geographical indices which many ETF's track
- Features of inverse ETF's, leveraged funds
- Contrast between funds which hold "physicals" versus those which are synthetic – hold futures, swaps, structured products.
- Replication strategies – stratified sampling vs. full replication, use of synthetics
- Examination of tracking error for exchange traded products
- Risks associated with ETF's, liquidity risk, risks with synthetic ETF's

## Special Risk Factors for Emerging Market Equities

- Examination of how capital flows into emerging markets are influenced by the intention of central banks especially Federal Reserve to push asset managers into risk assets
- Globalization of resourcing and capital flows has invalidated much traditional macro-economic theory regarding economic cycles
- Differentiation between EM economies which have trade surpluses/deficits
- Examination of negative feedback loops for EM markets when advanced economies reduce their accommodative monetary policy
- Examination of ETF's which provide exposure to emerging market equity and debt
- Analysis of correlation between emerging market equities and commodities
- Challenges and strategies for hedging and managing risk of emerging market equities because of lack of depth in markets for hedging exotic currencies

## Techniques For Forecasting Expected Returns

- Risk Factor Asset allocation strategies – reversing the trend of MPT and focusing on specific factors which "account" for asset class behaviour
- Identifying key risk factors as drivers of asset prices
- Insights from behavioural finance – risk seeking versus risk aversion
- Long term correlations amongst asset classes – mean reversion
- Contrarian indicators – sentiment, positioning of traders, hedge funds
- Is there any evidence of asset returns having cyclical behavior?

## Overview of Equity Based Derivatives

- Terminology – underlying, spot markets, options, futures, swaps
- Initial margin, variation margin, cost of carry, basis risk
- Equity index futures contracts
- Options on individual equities and equity indices
- American, European, Asian style
- Puts and calls – perspective of buyer and writer

- Risk elements of derivatives
- Counterparty risk, Market risk, Liquidity risk
- Risks to the buyer of futures/options
- Risks to the writer/seller of futures/options
- Explain the key contrasts between Exchange traded versus Over-the-counter (OTC) derivatives
- Central clearing versus counterparty risk
- Role of options/futures in hedging equity portfolios

## Managing Risk for Equity Portfolios

- Main types of portfolio risk
- Market risk – asset price volatility, currency, interest rates etc.
- Investment horizon and holding period
- Systemic and tail risk
- Principles used to mitigate portfolio risk:
- Seeking relatively uncorrelated assets
- Benefits/limitations of diversification
- Use of derivatives in hedging and risk management
- Modeling risk scenarios – stress testing, stress regression based on outlier values, tools of statistical analysis, Monte Carlo simulations, back testing
- Tail risk protection strategies

## Smart Beta Strategies

- Review of the logic behind smart beta – risk factor asset allocation models
- Examination of the performance of various widely used smart beta ETF's
- Crowding and herding issues with smart beta strategies
- Are the promises provided by smart beta ETF sponsors warranted?

## Concluding Themes

- The benefits of strategic investment vs. short term trading and market timing
- Recognition that investor behavior can be emotion driven in the short term but more calculated over longer term horizons
- Sources of bias in decision making and judgment in asset allocation
- Establishing investment objectives that can be defined, quantified, and achieved successfully
- Importance of periodic re-balancing and refreshment of portfolios
- Synthesis of different asset allocation approaches
- Macro-economic top-down allocation
- Micro-economic bottom-up allocation