

Chartered Wealth Manager Qualification

Portfolio Construction Theory

Edition 9, December 2021

This workbook relates to syllabus
version 7 and will cover the exam on
17 June 2022 and 1 December 2022



APPROVED WORKBOOK

Welcome to the Chartered Institute for Securities & Investment's Portfolio Construction Theory study material.

This workbook has been written to prepare you for the Chartered Institute for Securities & Investment's Portfolio Construction Theory examination.

Candidates sitting the Chartered Wealth Manager titles will be provided with an Information Pack along with the question paper for the exam. This contains taxation rates and allowances for the relevant tax year and tables of gilt market prices.

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A learning map, which contains the full syllabus, appears at the end of this workbook. The syllabus can also be viewed on cisi.org and is also available by contacting the Customer Support Centre on +44 20 7645 0777. Please note that the examination is based upon the syllabus. Candidates are reminded to check the Candidate Update area details (cisi.org/candidateupdate) on a regular basis for updates as a result of industry change(s) that could affect their examination.

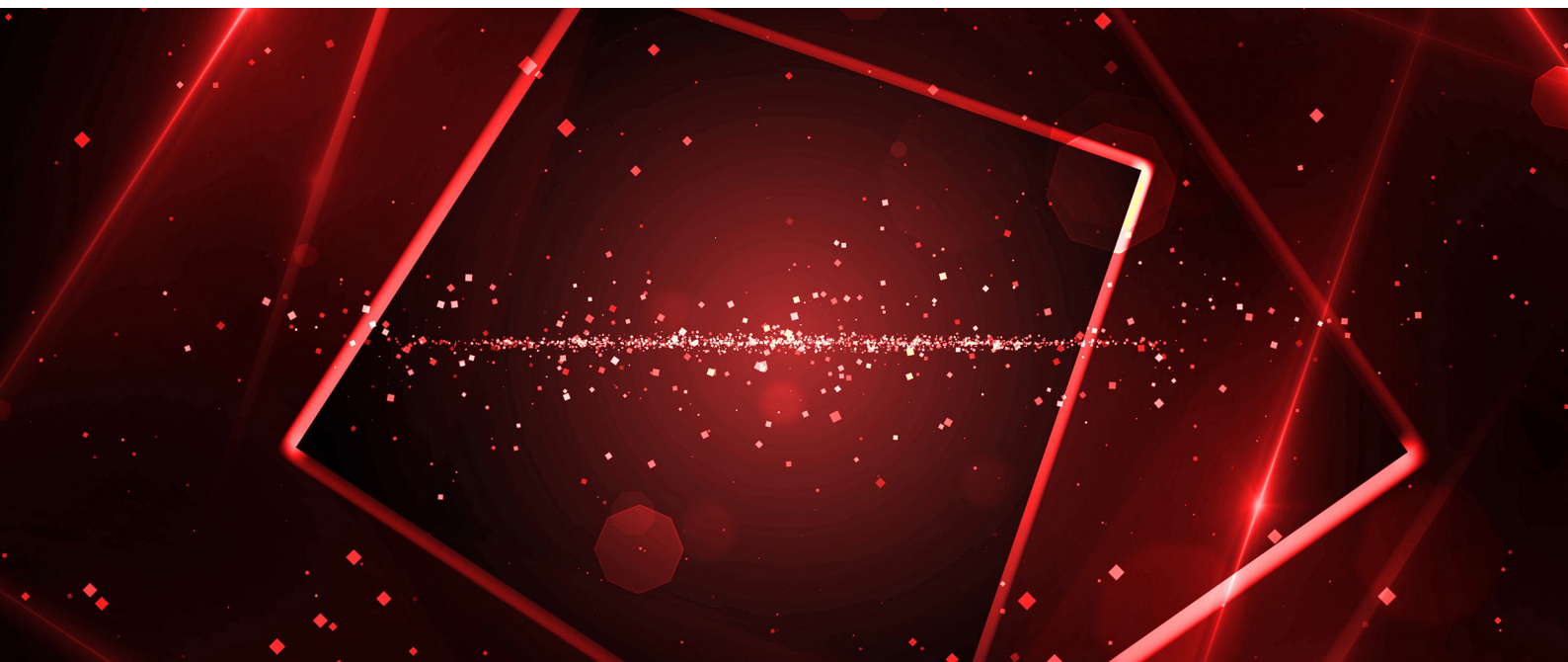
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It is estimated that candidates will require approximately 200 hours of study time, including study of this workbook, any formal tuition and wider reading in order to be successful in the examination.

Chapter One

Fundamentals of Investment Theory

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Learning Outcome 01

Be able to determine client risk characteristics and establish investment objectives and strategy

1. Introduction to Wealth Management

The Portfolio Construction Theory workbook examines the fundamentals of **investment theory** and best practice for investment managers to construct a portfolio of investments to achieve desired objectives. The focus is on **wealth management** practices, where the professional relationship between the wealth manager and their client is of even greater importance than for a money manager working in a traditional investment management firm. This relationship continues to evolve, and has been subject to some significant changes over the years, including:

- the **Fair Treatment of Customers (FTOC)** initiative (launched in July 2006)
- the **Retail Distribution Review (RDR)** that came into effect in 2012, and
- when the **Financial Conduct Authority (FCA)** took over supervision of consumer protection from the Financial Services Authority (FSA), its 2013 Risk Outlook outlined the new conduct risk regime, which looks at the **risks** of banks' controls and operations failing. The FCA has referred to conduct risk in terms of '*consumer detriment arising from the wrong products ending up in the wrong hands, and the detriment to society of people not being able to get access to the right products*'.

The increased regulatory focus on adviser conduct continues, with further consultations and advice reviews planned. In wealth management there is a personal aspect to the transactions, because portfolios are customised to the precise needs of individual clients.

This chapter examines the process involved in developing, implementing and reviewing portfolios. The chapter also covers the theoretical foundations to understanding the risk and return aspects of modern investment theory. The approach taken in this book is focused on the application of techniques, with a level of mathematics used consistent with the material being covered.

In addition to investment skills, managers operating in wealth management need to have highly developed client relationship skills, requiring a commitment to the long-term goals of their clients. Representative clients are often **high-net-worth individuals (HNWIs)**, entrepreneurs and their families, and wealthy retail clients. They seek bespoke solutions to their investment and financial planning problems. The entry bar for investment is usually set high, although some firms do provide financial planning and wealth management advisory services to individuals with a net worth in the range from £100,000 to £1 million. Regardless of portfolio size, retail investors (ie, private individuals) may not necessarily be educated in areas of finance, unlike institutional investors. Such clients will likely be heavily reliant on the guidance, education and advisory capacities of wealth managers and their teams.

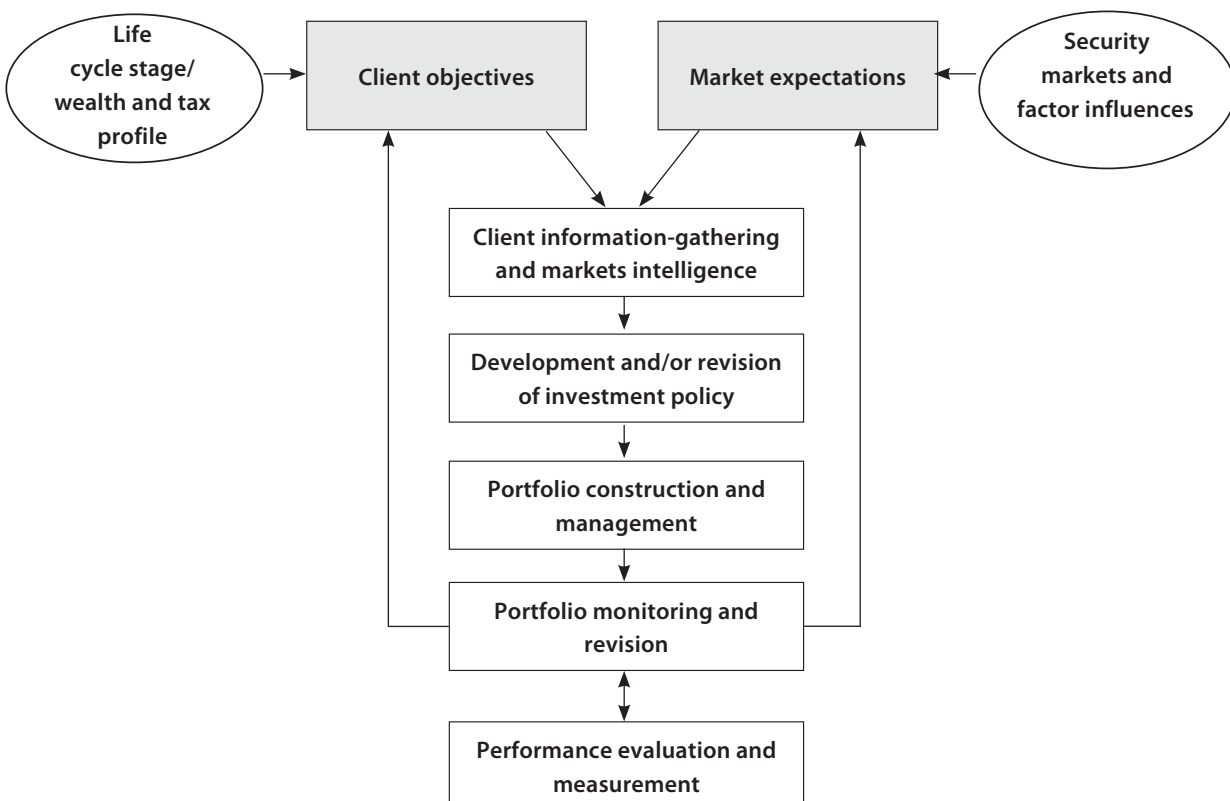
The process of meeting client goals starts with an extensive **data-gathering** exercise that is specifically designed to understand the needs of the individual. This intelligence will serve as valuable input for developing well-defined investment solutions matched to client objectives. Knowledge and experience of the market's behaviour and characteristics then creates opportunities to select the appropriate

securities and to construct a bespoke portfolio that can meet the client’s future income and wealth needs. Wealth management firms provide the financial planning that is required to meet long-term goals, potentially in a tax-efficient wrapper (eg, if the client is eligible).

Any portfolio that is created must be monitored continuously and adjusted to adapt to the client and security market conditions. The manager should revise the composition of the portfolio if it does not deliver the desired outcomes. In the short term, these revisions will predominantly be influenced by market changes and trends. Over a longer term, revisions will be necessary to progressively meet the changing needs of the individual over stages of their life cycle. Completion of the data-gathering stage allows client objectives to be clearly identified. At the same time, there will also be an assessment of the **capital markets**, in order to develop capital market expectations (views about return and risk of the securities and assets to be used in the portfolio). A customised **investment policy statement** will be created. This is a document that both the client and the wealth manager sign to demonstrate their mutual agreement to the investment approach to be adopted.

At the construction phase, decisions will be based on choices about security selection and timing, ie, which securities should be included in a portfolio and how they should be combined. Later, at the monitoring stage, performance of the portfolio will be compared with the set objectives. On the basis of unexpected changes in markets, some securities may have underperformed, and others outperformed. Divergences in the overall portfolio performance from expectations will prompt the manager to review those securities. Thus a feedback loop is created, whereby the construction, monitoring and management aspects will be locked into a cyclical process. Ultimately, this process is designed to meet the changing needs of the client over their entire lifetime.

Figure 1.1 – The Wealth Management Process



The key steps in the **wealth management process** are shown in figure 1.1. As will be seen, the decisions which need to be made are very much concerned with balancing or, as it is sometimes expressed, a trade-off, between the likely rewards or returns from the chosen investments and the risks associated with them, and with their manner of combination within a portfolio.

2. Investment Objectives

Learning Outcome

- 1.3 Determine investment objectives and strategies appropriate to the client: establish investment objectives and investment strategy; incorporate client circumstances key to investment objective or strategy; appraise the optimal portfolio based on the client risk profile

Wealth management puts the client first. Determining the client's circumstances and objectives accurately is a thorough process where the wealth management team will cover several aspects to gather as much information as they can. Managers acting in an advisory capacity should be prepared to educate their clients in areas of finance, particularly on matters related to risks and underlying return-generating processes that affect security markets.

An outline of the information required is as follows:

1. Determining client goals and setting objectives

This focuses on an assessment to establish future wealth needs to meet future liabilities. These can include quantitative analyses such as detailed cash-flow modelling to estimate the value of sums required today to meet specific future liabilities (eg, house deposit, school or university fees, pension planning, or paying off capital on an interest-only **mortgage**).

Once plans have been put in place to meet necessary requirements, a more qualitative approach can be used to consider other savings and investments with less essential objectives or investment in a more general portfolio for wealth accumulation.

Client objectives can often be expressed in terms of returns (such as nominal, real, absolute and relative), either with some particular target in mind or with the aim of maximising returns subject to the client's risk tolerance and other constraints. Contemporary wealth management also focuses on risk management. Consequently, clients are often offered customised solutions designed to generate the best outcomes in risk-adjusted return terms, although reports suggest that the use of model portfolios is increasing¹.

2. Risk tolerance

This is assessed in qualitative and quantitative terms. Clients will have different attitudes towards risk, and the same client may also have different attitudes to risk for different pots of money (see also chapter 6 on mental accounting). For example, a client who has many years to retirement may be willing to accept more risk for their pension investments; but may be more cautious with, say, a short-term savings pot.

1 <https://www.businesswire.com/news/home/20210218005649/en/Model-Portfolios-on-the-Rise-as-Financial-Advisory-Firms-Emphasize-Client-Experience-Finds-Natixis-Survey>

Moreover, **risk appetite** will change over different stages of the life cycle. Hence, it is necessary to conduct a review based on past behaviour, questionnaires, and interviews with the client, as well as developing an understanding of a person's lifestyle choices and spending patterns.

Traditional investment theory considers all investors to be risk averse. Relationship to risk can be assessed by observing behavioural and emotional responses to past losses. Clients can also be subjected to hypothetical situations and scenarios where their reactions to losses can be assessed. Studies of this kind can provide the essential inputs to gauge the client's risk tolerance. Qualitative and emotive factors are also considered because they will undoubtedly have a significant or an overriding impact on investment choices in the portfolio construction process.

Questionnaires can help provide a more quantitative assessment of a client's risk tolerance; however, there is always a risk that the client's hypothetical attitude to risk (as captured in a questionnaire) may not reflect their reaction when faced with real-life losses. To attempt to address this, questionnaires will often ask related questions in different ways to try and gauge a client's true feelings about the level of risk they are prepared to accept. Discussion with the client can also help a wealth manager to determine whether, in their qualitative judgement, the risk appetite expressed in the questionnaire appears consistent with what they would expect.

Although much of the information collected in questionnaires tends to be qualitative in nature, very often the output from a **risk-profiling** questionnaire is intended to be quantitative, with a client assigned a risk score, from low to high risk, typically expressed on a scale of 1 (low risk) to 10 (high risk). Decisions around the sorts of assets they can invest in will then be based on this numerical score.

3. **Constraints**

Elements include **liquidity** needs, the client's legal and tax position (the latter of which may make some assets more cost effective than others, particularly in relation to income versus capital gains), and any unique circumstances. Although constraints are considered lower down in the list of priorities, in many cases, these elements can have a significant overriding influence on guiding investment policy.

Clients will need adequate cash (liquidity) to meet short-term needs or to tide them over in unforeseen circumstances, so as not to be put at risk of becoming forced sellers of assets. For example, sale of shares when equity markets are low, or causing them to incur unnecessary transaction costs.

If clients find they have a need for liquidity rapidly, the need to achieve sales quickly can also lead to them realising low sales prices for assets. Such circumstances could result in net losses on investments. If funds are likely to be required on a relatively short time horizon, perhaps within three years or so, it might be unwise to expose the sums involved to fluctuations in value from **market risk** or other sources.

For these reasons, it is extremely important that clients maintain a certain minimum level of liquidity, dependent on their circumstances.

The task for a wealth manager will not be made any easier as the client passes through different stages of their life cycle. Their risk tolerance and their capital market expectations may change dramatically during such transitions. For example, at the stages of life when clients need additional income

(decumulation or retirement), clients need tax-efficient vehicles and they may need cash to meet the contingent needs of a family member who has become ill and needs long-term support.

Understanding all of these client needs is one of the main inputs into the development of the **investment policy statement**. The second main input into the investment decision process will involve developing accurate capital market expectations (views). Investment will take place in a multi-stage time process. The returns and the wealth generated in one period being rolled over with contributions to another. At the end of each target date, the constructed portfolio will need to deliver at least a floor-level return (or wealth) to match the final desired income and terminal wealth needs of the client. Some analysts see this aspect of matching the potential gains from the asset portfolio to a client's wealth needs in the future as an **asset/liability management** exercise. In this case, the target date requirement is a liability that must be met.

As market conditions change, securities and instruments that initially met the client's objectives may not remain so in the future. Therefore, it is imperative that the portfolio is adjusted at regular intervals to stay focused on the objectives. Otherwise, market expectations developed at the construction stages may have changed and may not bear any relation to the reality of the situation when the portfolio is ultimately liquidated. Further, a client's requirements will change over time, not just as they pass through different stages of their life cycle, but also because their own risk appetite may change, or events may cause them to focus on different priorities. This makes it essential to regularly discuss objectives with clients to ensure that their requirements are still being met.

The process is designed with the objective of seeking to achieve an investor's desired return (future wealth need), whilst also meeting all the relevant **regulations**. It is a balancing act where the performances of the assets in the underlying investment pool need to be monitored against the stated objectives. Undesirable differences between expected and realised returns will trigger revisions to the portfolio to correct imbalances and wealth shortfalls.

2.1 The Role of the Investment Policy Statement (IPS) in the Wealth Management Process

Traditionally in money management, an investment policy statement (IPS) is a document that is an essential guide for the wealth manager on the investment side of the strategy, and also provides information to the client to outline the plan's expectations. It sets out clearly the **investment objectives** of the fund in terms of risk and return, constraints and outcomes, and other important pieces of relevant information for use both internally (management team) and externally (clients and their advisers), thus it serves as a primary guide for all aspects of the portfolio management process. It is then signed by both parties.

Examples of information included in the IPS are:

- client names and appropriate information on their personal circumstances
- outline of the service relationship between the client and the wealth manager
- general investment goals and objectives of the client, including investment performance and risk objectives and investment risk objectives
- client priorities (eg, liquidity preferences)
- residence and tax status of the client
- base currency of the client, any liabilities they may have and the currency of the liabilities

Absolute Performance

Performance of an investment in absolute terms, rather than relative to some benchmark index.

Absolute Return Objective

A target return that an investment, typically a fund or portfolio may be expected to attain. May be expressed as a number, eg 5% pa, or relative to cash, eg, cash + 3% pa.

Accountable Persons

In general terms, the 'accountable person' rules are designed to place the primary reporting and payment obligations upon an involved financial intermediary, such as a broker.

Accrued Interest

Interest that has been earned, but not yet paid.

Active Equity Investing

Investment in equities in which the manager holds a selection of shares different from the constituents of some index, selecting specific stocks or by timing their purchases, with the aim of out-performing that index.

Advisory Portfolio Management

A firm acts as the investment manager for the client and accepts responsibility on a continuing basis for advising on the composition of the account or portfolio.

Alpha (α)

The outperformance of a portfolio against the benchmark attributable to the manager's strategy. The outperformance may be calculated in a number of ways. For example, some may be risk-adjusted, while others may not be, with the alpha calculated by subtracting a benchmark return from a fund return.

American Depositary Receipt (ADR)

An ADR represents a share, or a defined number of shares, of a non-US company. A depositary bank holds the shares and issues the depositary receipt.

Anchoring

People faced with having to make a decision or judgment start with an implicitly suggested reference point, which can be likened to an 'anchor'.

Anomaly Switching

A switch between two bonds with very similar characteristics, but whose prices or yields are out of line with each other.

Appraisal Ratio

A ratio for appraising any active management within a portfolio by reference to the performance of a passive tracker fund. It compares the fund's alpha to the portfolio's unsystematic risk or residual standard deviation.

Arbitrage

A strategy used by market traders to exploit the price difference between similar assets.

Arithmetic Mean

The average of a series of numbers obtained by summing the numbers and dividing by their number. For n numbers x_1, x_2, \dots, x_n , the arithmetic mean, m is given by:

$$m = \frac{1}{n} \sum_{i=1}^n x_i$$

Asset Allocation

The distribution of investments across categories of assets, such as equities, bonds and cash. Active managers will change asset allocation to improve a fund's performance based on their forecast returns for each asset class.

Asset/Liability Management (ALM)

Comparing the (projected) value of assets with the (projected) value of liabilities.

Authorised Corporate Director (ACD)

Fund manager for an OEIC.

Learning Outcome 01 Be able to determine client risk characteristics and establish investment objectives and strategy		Chapter 1
1.1	Apply client circumstances and objectives: <ul style="list-style-type: none"> • assess a client's quantitative and qualitative financial circumstances: age, wealth, stage of life cycle, time horizon, need for liquidity, tax position, jurisdiction, location and ethical preferences 	Chapter 1, Sections 5
1.2	Evaluate client risk profile: <ul style="list-style-type: none"> • explain risk profiling of clients • calculate client risk tolerance, appetite for risk and establish the optimal portfolio • explain and interpret utility/indifference curves according to risk profile • review investment objectives 	Chapter 1, Section 6
1.3	Determine investment objectives and strategies appropriate to the client: <ul style="list-style-type: none"> • establish investment objectives and investment strategy • incorporate client circumstances key to investment objective or strategy • appraise the optimal portfolio based on the client risk profile 	Chapter 1, Section 2

Learning Outcome 02 Be able to explain, construct, implement, and evaluate asset allocation strategies and management		Chapter 4 and 10
2.1	Explain and appraise the importance of asset allocation: <ul style="list-style-type: none"> • principles of asset allocation • empirical evidence on the role of asset allocation within a portfolio • risk, return, correlation, diversification, cost of access, and liquidity of the main asset classes; base currency considerations (US\$, EUR, £) • liquidity, time horizon, liabilities and religious and ethical preferences of clients as constraints to asset allocation 	Chapter 4, Section 1
2.2	Explain correlation: <ul style="list-style-type: none"> • its nature and usage • historic long-run averages of asset classes, strategies, and markets 	Chapter 1, Section 4 and Chapter 5, Section 1.2
2.3	Appraise the properties of a portfolio's asset mix: <ul style="list-style-type: none"> • definition of portfolio asset mix • the link between the asset mix and the frontier of possible portfolios • the link between the asset mix and the asset allocation strategy 	Chapter 4, Section 1
2.4	Explain different types of asset allocation strategy: <ul style="list-style-type: none"> • long-term strategic asset allocation • constant proportion portfolio insurance (CPPI) • asset-liability model • risk parity • risk budgeting 	Chapter 4, Section 2

2.5	Appraise and calculate by use of narrative and numeric illustration: <ul style="list-style-type: none"> • long-term strategic asset allocation • constant proportion portfolio insurance (CPPI) • asset-liability model • risk parity • risk budgeting 	Chapter 4, Section 3
2.6	Appraise tactical asset allocation: <ul style="list-style-type: none"> • principles of tactical asset allocation • empirical evidence on tactical asset allocation • measures used to determine when to tactically rebalance 	Chapter 4, Section 4
2.7	Evaluate collective investments for use in a portfolio: <ul style="list-style-type: none"> • collective investment vehicles as building blocks to gain asset class exposure • advantages and disadvantages of physical and synthetic ETFs • suitability for the client and selection of appropriate funds • characteristics of main collective investment vehicles within an investment portfolio • buying and selling collective investment vehicles 	Chapter 3, Sections 1 and 2
2.8	Appraise the use of alternative investments in structuring a portfolio	Chapter 2, Sections 5 and 6 and Chapter 3, Section 2.11

Learning Outcome 03		Chapters 2 and Chapter 10, Section 1
Be able to apply the techniques and concepts of a risk-free asset, inflation, foreign currency, and time periods to investment risk and return		
3.1	Explain types of investment return: <ul style="list-style-type: none"> • risk-free rate of return • beta • alpha 	Chapter 10, Section 7
3.2	Explain risk premium: <ul style="list-style-type: none"> • its nature and usage • the Taylor rule • historic long-run averages of asset classes, strategies, and markets 	Chapter 1, Section 7

3.3	<p>Explain the concepts and measurement of investment risk, including:</p> <ul style="list-style-type: none"> • types, metrics and measures • risk of the main asset classes and strategies • probability • standard deviation (volatility) • semi standard deviation • Value at Risk • conditional Value at Risk • beta • tracking error • drawdown • runs tests • non parametric measures 	Chapter 1, Section 3 and Chapter 10, Section 6
3.4	<p>Evaluate the effects of exchange rates and foreign currencies on investment returns:</p> <ul style="list-style-type: none"> • the nature of foreign exchange products and markets • calculate nominal domestic return and foreign currency return 	Chapter 1, Section 4.7 and Chapter 10, Section 4.2
3.5	<p>Evaluate the effects of inflation on returns:</p> <ul style="list-style-type: none"> • the nature of inflation • calculate real domestic return and foreign currency return 	Chapter 2, Section 2.3
3.6	<p>Evaluate the effects of pound cost averaging within the context of risk, inflation, and exchange rate movements</p>	Chapter 1, Section 4.6
3.7	<p>Evaluate an appropriate risk-free asset according to an investor's time horizon and investment strategy</p>	Chapter 2, Sections 2 and 7
3.8	<p>Select, apply, and calculate discounted and compounded investment risk and return for:</p> <ul style="list-style-type: none"> • periods of less than one year • periods of more than one year 	Chapter 10, Section 2
3.9	<p>Calculate and critique time-weighted, money-weighted, and internal rate of return:</p> <ul style="list-style-type: none"> • via numeric illustration and narrative illustration • holding period return • internal rate of return and the uses and limits of interpolation • discounting cash flows for dividend valuation model 	Chapter 10, Section 3

Learning Outcome 04		Chapter 5
Be able to evaluate Modern Portfolio Theory (MPT) and asset pricing models		
4.1	Evaluate the uses of MPT by description, illustration, and numeric application: <ul style="list-style-type: none"> • the principle of diversification • the impact of correlation upon portfolio risk and return • Markowitz portfolio risk • frontier of possible portfolios • efficient frontier • capital market line • systematic and unsystematic risk • the market portfolio • the interaction of indifference curves, the efficient frontier, and the capital market line 	Chapter 5, Section 1
4.2	Evaluate the uses of asset pricing models by description, illustration, and numeric application: <ul style="list-style-type: none"> • security market line • Capital Asset Pricing Model (CAPM) • zero beta CAPM • CAPM extensions • arbitrage pricing theory • multi factor models • the use and application of betas • the limits of asset pricing models and the efficient frontier 	Chapter 5, Section 2
4.3	Be able to discuss and appraise the use of annuities within portfolio construction: <ul style="list-style-type: none"> • variable • deferred • conventional • guaranteed 	Chapter 1, Section 2.2.1

Learning Outcome 05		Chapter 7
Be able to explain and evaluate the efficient market hypothesis (EMH), evidence, anomalies, and impact on investment approach		
5.1	Explain what is meant by efficient markets: <ul style="list-style-type: none"> • definition and key features • independent returns and random walks • informational efficiency • theory and evidence on the three classic forms of the EMH 	Chapter 7, Section 1

5.2	<p>Explain and evaluate efficient market anomalies:</p> <ul style="list-style-type: none"> • definition and key features • evidence on efficient market anomalies • links to investment management style • links to fund manager persistence • links to indices • links to portfolio theory and the efficient frontier • links to behavioural finance 	Chapter 7, Section 1
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Learning Outcome 06		Chapter 6
Be able to explain and evaluate theory and evidence about behavioural finance		
6.1	<p>Discuss and evaluate the evidence on behavioural finance:</p> <ul style="list-style-type: none"> • definition and key features • types of evidence and categories of tests • empirical evidence • prospect theory, loss aversion, and lotteries • implications for the wealth management sector • investment design techniques that may improve long-term investment outcomes • types of trader in the market: information traders, noise traders 	Chapter 6, Section 1

Learning Outcome 07		Chapter 7 and Chapter 8, Section 1
Be able to explain, examine, and evaluate fund management		
7.1	<p>Explain the key properties of the fund manager's role and evaluate evidence about investment management:</p> <ul style="list-style-type: none"> • definition and key features • costs and charges of accessing types of fund management • fund manager performance and persistence • buy and hold versus trading • factors to consider when selecting a fund manager 	Chapter 8, Section 2
7.2	<p>Evaluate the different approaches to fund management:</p> <ul style="list-style-type: none"> • investment strategy and style: active/indexation/passive and top down/bottom up • global and specialised fund management expertise • quantitative and qualitative based • scalability 	Chapter 8, Section 3
7.3	<p>Determine a strategy of active equity selection:</p> <ul style="list-style-type: none"> • valuation indicators for asset classes, markets, sectors, and securities • investment styles: value, growth, momentum, quality, beta • investment philosophy: fundamental analysis, technical analysis and quantitative analysis 	Chapter 7, Section 2

7.4	<p>Determine a strategy of equity indexation:</p> <ul style="list-style-type: none"> • active and passive indices • duplication • stratified sampling • factor matching • commingling • tracking error • subjectivity with indexation 	Chapter 7, Section 3
7.5	<p>Apply a strategy of active bond selection:</p> <ul style="list-style-type: none"> • duration switching • riding the yield curve • bond switching 	Chapter 7, Section 4
7.6	<p>Apply a strategy of bond indexation:</p> <ul style="list-style-type: none"> • active and passive indices • duration matching (immunisation) • cash flow matching • horizon matching (combination) 	Chapter 7, Section 5
7.7	<p>Discuss and explain investment stewardship:</p> <ul style="list-style-type: none"> • its nature and usage • the UK Stewardship Code • voting ownership rights attached to ordinary shares • stock lending • engagement • class actions 	Chapter 8, Section 4
7.8	<p>Discuss and explain responsible investment and the application of environmental, social, and governance factors within fund management:</p> <ul style="list-style-type: none"> • its nature and usage within investment • its nature and usage within fund manager selection and monitoring • the United Nations (UN) Principles for Responsible Investment (PRI) 	Chapter 9, Section 1
7.9	<p>Explain and analyse ethical investment:</p> <ul style="list-style-type: none"> • key features • taking an ethical approach to investment design • ex-ante and ex-post investment performance 	Chapter 9, Section 1

Learning Outcome 08		Chapter 4, Section 4.5
Be able to examine and appraise the application of derivatives at a portfolio level		
8.1	Explain the properties of derivatives applied at a portfolio level, and appraise their use and implement: <ul style="list-style-type: none"> • nature and usage • what risks to control • the hedge ratio • applicable derivatives • collateral and margin • risk register • availability and liquidity of derivatives 	Chapter 4, Section 4.5
8.2	Evaluate the use of derivatives in achieving risk control	Chapter 4, Section 4.5
8.3	Evaluate methods of protecting a portfolio against inflation	Chapter 4, Section 4.5
8.4	Evaluate hedging strategies to protect the value of a portfolio	Chapter 4, Section 4.5

Learning Outcome 09		Chapter 10
Be able to apply a range of techniques to measure portfolio performance		
9.1	Apply benchmarking techniques: <ul style="list-style-type: none"> • peer group benchmark • customised benchmark • benchmark index 	Chapter 10, Section 1.2
9.2	Evaluate performance attribution: <ul style="list-style-type: none"> • asset allocation • stock selection • currency 	Chapter 10, Section 4
9.3	Evaluate investment performance using: <ul style="list-style-type: none"> • total risk • Jensen measure • relative duration (bonds) • Sharpe ratio • M2 Measure • Treynor measure • appraisal ratio • information ratio • alpha • beta • semi-standard deviation • drawdown • runs test • Sortino ratio • Value at Risk • Conditional Value at Risk 	Chapter 10, Sections 5, 6 and 7

Learning Outcome 10 Be able to assess the impact of UK taxation on assets, investments, and strategies		Chapter 10, Chapter 11, Section 1, Chapter 12, Section 1 and Chapter 13, Section 1
10.1	Explain and calculate the taxation of: <ul style="list-style-type: none"> • equities • bonds • derivatives • income • capital gain 	Chapter 11, Section 4
10.2	Explain and calculate the taxation of direct investment holdings and indirect investment holdings via funds and wrappers.	Chapter 11, Section 4
10.3	Explain and calculate net of tax: <ul style="list-style-type: none"> • investment returns • valuations • asset pricing 	Chapter 11, Section 4
10.4	Explain and evaluate VAT in the investment process, portfolio construction and fund management.	Chapter 11, Section 8
10.5	Explain and determine the tax treatment of onshore and offshore collective investment funds: <ul style="list-style-type: none"> • onshore funds, including unit trusts, unauthorised unit trusts, OEICs and Investment Companies with Variable Capital (ICVCs) • distributor and non-distributing offshore funds • non-distributing hedge funds • government promoted funds and special reliefs 	Chapter 12, Sections 1, 2 and 3

Reading List

Periodicals and newspapers

1. Financial Times
2. FT Weekend
3. Risk Magazine
4. Journal of Derivatives
5. Journal of the Futures Market
6. Investors' Chronicle
7. Securities & Investment Review
8. Investment Week
9. Professional Investor (the quarterly journal of the CFA)
10. Money Management
11. What Investment?
12. Investment Adviser
13. Professional Adviser
14. Money Observer
15. Bloomberg Money

Books

1. Mastering Credit Derivatives; Andrew Kasapi; FT/Prentice Hall
2. Options, Futures and other Derivatives; John C. Hull; Prentice Hall
3. Investments: AND S&P; Bodie Z, Kane A, Marcus AJ; McGraw Hill Higher Education; 7th edn 2007
4. An Investor's Guide to Analysing Companies and Valuing Shares; Cahill M; FT Prentice Hall
5. The Intelligent Guide to Stockmarket Investment; Keasey, K; Hudson, R; Little, K; Wiley 1998
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Unit Summary

The objective of the examination is to enable candidates to think critically and communicate clearly in the context of:

- the theory of investment as applied to the management of funds for private clients
- the structuring of a portfolio of financial assets to suit the needs of a private client
- the tax planning measures to be considered when structuring a portfolio of financial assets to suit the needs of a private client.

NB The learning in this syllabus builds on the content of the previous unit in the qualification, Financial Markets, and candidates will be assessed on aspects of that unit in the Portfolio Construction Theory exam.

Assessment Structure

This is a three-hour examination of 100 marks comprising three sections:

- **Section A worth 20 marks**
 - candidates answer ALL parts of the multiple-choice questions in this section.
- **Section B worth 40 marks**
 - candidates answer ALL parts of the short answer questions in this section.
- **Section C worth 40 marks**
 - candidates answer TWO questions from THREE, worth 20 marks each.

Syllabus Structure

The syllabus is divided into learning outcomes. These are broken down into a series of assessment criteria.

Candidate Update

Candidates are reminded to check the 'Candidate Update' area of the Institute's website (www.cisi.org/masters) on a regular basis for updates that could affect their examination as a result of industry change.

Verb	CISI Definition requires the candidate to	Other Definition
analyse	review the information content in detail and draw conclusions	study or determine the nature and relationship of the parts by analysis
apply	be able to use knowledge in a given set of circumstances to present a clear and detailed explanation of a situation, rule or principle	
assess/ consider (critically)	review the information and content to make an informed judgment (<i>taking into account the strengths and weaknesses/advantages and disadvantages</i>)	
calculate	be able to determine by mathematical processes	
distinguish	be able to compare and contrast two or more issues, situations, rules or principles	perceive a difference in; to separate into kinds, classes or categories
evaluate	judge the significance, worth, or quality of information given	
interpret	review the information content and extract meaning from it	to explain or tell the meaning of; to present in understandable terms
understand	demonstrate comprehension of an issue, fact, rule or principle	
appraise	form an opinion about how successful or effective something is	

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