September 8, 2023

VIA ELECTRONIC MAIL
Sherry Tabesh-Ndreka
Director, Registration
Canadian Investment Regulatory Organization
Suite 2000, 121 King Street West
Toronto, Ontario
M5H-3T9

Email: Stabesh@iiroc.ca

Re: CIRO Consultation Paper on Proficiency Model

Dear Ms. Tabesh-Ndreka:

I am writing on behalf of the Investments and Wealth Institute f/k/a Investment Management Consultants Association, Inc. ("IWI") to provide comments to the Canadian Investment Regulatory Organization on the Consultation Paper – Proposed Proficiency Model – approved Persons Under the Investment Dealer and Partially Consolidated Rules, published July 7, 2023. ("Consultation Paper")

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II. BACKGROUND-IWI

IWI is a non-profit certification body and education provider that serves advanced financial services professionals located worldwide, although principally in the United States. IWI offers three certification schemes, CERTIFIED INVESTMENT MANAGEMENT ANALYST® ("CIMA®"), CERTIFIED PRIVATE WEALTH ADVISOR® ("CPWA®"), and RETIRMENT MANAGEMENT ADVISOR® ("RMA®").

We have previously provided information on IWI's programs in our letters of July 20, 2020 to Richard Korble and May 5, 2022 to Martina Ripoche seeking to have the CIMA designation approved as an alternative to the current proficiency requirements for Approval as a Portfolio Manager or Associate Portfolio Manager, and in our responses to IIROC's Request for

Comments on Competency Profiles and Request for Expressions of Interest in December, 2022. I will not repeat the information provided in those letters.

III. Comments in the Consultation Paper

1. General Proficiency Model

We support an assessment-based proficiency model using exams supplemented by specific training requirements, continuing education and in some cases experience requirements. We believe that model will provide a high degree of proficiency while opening the program to healthy competition amongst educational providers.

2. Equivalencies with other PM/APM educational programs

We also support the acceptance of equivalencies for Portfolio Manager and Associate Portfolio Manager categories for the following reasons:

1. Those taking extensive programs on portfolio management such as those listed in the paper have already passed in-depth examinations. It would be excessive to require them to pass yet another one when they have already completed recognized programs on the knowledge and skills required to manage client portfolios.
2. Many portfolio managers are employed in registered firms outside CIRO, and in other firms outside the regulated securities industry such as pension funds. Where people in those positions have completed the programs recognized as equivalent, requiring that they pass an additional examination to move from a non-CIRO firm to a CIRO firm would not only be excessive, it would discourage the movement of highly qualified portfolio managers into CIRO Dealer Members and therefore deprive the clients of those CIRO firms offering portfolio management of benefitting of the skills of those portfolio managers.
3. From our own experience, examinations without recognized education leave applicants without a path to completion. Recognition of equivalencies is the necessary bridge to an examination-based focus on licensing.

However, to the extent that the Consultation Paper suggests in section 4.2.3.2 the development of a method for recognizing the courses that are currently recognized in the CIRO Dealer Member and Partially Consolidated Rules and National Instrument 31-103 as equivalent to the proposed examination for PMs and APMs, the process should provide an opportunity for other courses and designations to be recognized as equivalent, including the CIMA® designation.

There is value in diversification of recognized equivalencies, to ensure that the profession evolves in a manner that improves the professionalism and ethics of the licensed individual. Recognition of other programs and certifications ensures that the Canadian securities industry evolves effectively. Monopolies tend to hamper advancement, as the Canadian authorities have recognized in coming to these proposed changes.

In addition, recognition of other courses and certifications is a matter of fairness. The currently recognized equivalencies were first approved decades ago. Many other valid and equivalent programs and certifications have since been established, and providing no mechanism to reexamine the list of equivalencies so that these valid other programs and certifications can be granted similar recognition would do a disservice to the securities industry and the investing public.

Attached as examples are

1. A comparison chart of the CIMA content to the IMT and PMT courses in the CIM Program and the CFA designation that are the currently acceptable equivalencies that were previously provided to you with our letter of July 7, 2020.
2. A comparison chart between the proposed competency profiles published for comment in 2022 and the content of the CIMA program, which we provided with our comment letter dated December 6, 2022 on the proposed proficiency profiles.

These attachments demonstrate that CIMA is a valid other certification that warrants consideration as an additional equivalency. We would expect that other programs might also warrant consideration as recognized equivalencies. We therefore recommend that CIRO develop a set of equivalency criteria to enable providers such as IWI to know what is required to obtain equivalency. Such criteria would also assist CIRO Staff to make equivalency determinations.

3. Conduct and Practices Examination for Securities Industry Professionals (CPH)

We have no difficulty with the concept of a requirement to pass a regulation-specific examination like the CPH to ensure that those occupying positions at CIRO Dealer Members are familiar with the rules applicable to them.

However, programs like the CIMA program already include extensive sections on general matters such as ethical practices, professional standards and client discovery that are part of the CPH curriculum. We suggest having an exam for those having the equivalent courses/designations, many of whom will also have extensive experience dealing with clients on suitability matters, that would focus instead on CSA and CIRO requirements and practices specific to PMs and APMs.

4. Timing

IWI has been attempting for over three years to obtain equivalency status with CIRO and its predecessor IIROC and the Canadian Securities Administrators. At each attempt we have been told that the matter is under study, and it is currently part of CIRO's much larger proficiency program, aimed at completion no later than another two and one-quarter years from now.

Furthermore, as the recognition of equivalencies will necessarily involve the CSA because of the recognition of specific programs in National Instrument 31-103, the acceptance of criteria and a process for recognizing equivalents could take even longer.

We respectively suggest that the development of equivalency criteria and a process for review of applicant courses could be separated from the larger project and implemented more quickly, as it does not involve the development of exams. For that reason, we suggest that work could begin immediately, including discussions with the CSA to make sure there is agreement on equivalency recognition.

Very truly yours,

Robert E. Frankel, JD, AIF®
General Counsel

IMT-PMT-CIMA Comparison

A comparison of topic lists shows that all of the IMT topics and most of the PMT topics are included among the core topics of the CIMA certification.

IMT	PMT	CIMA
1. Investment Policy -Investment Management Process • The Seven Steps of the Investment Management Process • Information Required by Regulation and Law • How Investment Advisors can Learn About Their Clients • How Investment Advisors can Determine Investment Objectives and Constraints • How an Investment Advisor can Craft an Investment Policy Statement • Communication Skills an Investment Advisor Needs	Chapter 1 Portfolio Management Overview • What is a Portfolio Manager? • Registration Categories Under NI 31-103 • Investment Industry Regulations • Best Practices Discretionary Manage • ment Within an IIROC Dealer Member Chapter 2 Ethics and Portfolio Management • Ethics • Codes of Ethics • Trust and Fiduciary Duty Chapter 3 The Institutional Investor • Financial Intermediation • Governance Chapter 10 Creating New Portfolio Management Mandates • New Product Development Process • Investment Guidelines and Restrictions	See CIMA Exam Detailed Content Outline at V. Portfolio Construction and Consulting Process. Specific subtopics include: V.A IWI's Code of Professional Responsibility §V.A.1 (Investments & Wealth Institute *Code of Professional Responsibility* [which incorporates an advisors' actual legal and regulatory requirements in practice into the knowledge that such advisor needs to know]) and V.B Client Discovery §V.B.1 (Investment management models such as goals-based investment management [including accumulation and decumulation] and liability-driven strategies [e.g., portfolio immunization, cash-flow matching]) and §V.B.2 (Relationship between time horizon and expected return vs. terminal value result of investment management models) and V.C Investment Policy §V.C.1 (Asset allocation methodology [e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return]) and §V.C.2 (Client-specific concepts to cover in an investment policy statement [e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return]) and §V.C.3 (Investment-related concepts to cover in an investment policy statement [e.g., investment and tax management strategies, rebalancing

		approach, passive to active spectrum, location of assets]) and §V.C.4 (Governance and ethics-related concepts to cover in an investment policy statement [e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements]) and V.D Portfolio Construction §V.D.1 (Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies) and §V.D.2 (Uses/advantages/disadvantages of Value-at-Risk [VaR] and Monte Carlo simulations of investment management models) and §V.D.3 (Scenario and stress testing methodologies [e.g., historical simulation and prospective simulation]) and V.E Manager Search, Selection, and Monitoring §V.E.1 (Components of manager due diligence) and §V.E.2 (Active share) and §V.E.3 (Manager styles and asset class structures) and §V.E.4 (The benefits and caveats of manager structuring including a multi-manager approach) and V.F Portfolio Review and Revisions §V.F.1 (Rebalancing methodologies and considerations).
2. Understanding a Client's Risk Tolerance • What Is Behavioural Finance? • The Relevance of Behavioural Finance to the Investment Advisor • Risk Tolerance Questionnaires and Their Limitation • What Are Investor Biases? • What Are Investor Personality Types? • How An Investment Advisor can Apply Bias Diagnoses When		CIMA Exam Detailed Content Outline at III. Portfolio Theory and Behavioral Finance Relevant subtopics include III.B Behavioral Finance Theory §III.B.1 (Cognitive biases and mental heuristics related to existing beliefs and information processing concepts) and

structuring an Asset Allocation program		§III.B.2 (Biases and mental heuristics [e.g., loss aversion, overconfidence, self-control, status quo, endowment, regret aversion, affinity]) and §III.B.3 (Portfolio construction based on behavioral bias) and §III.B.4 (Common behavioral investor types [e.g., preservers, followers, independents, accumulators] and how to work with each effectively in practice) and §III.B.5 (Methods of overcoming cognitive and emotional bias)
3. Asset Allocation and Investment Strategies • The Definition of An Asset Class *** • The Asset Allocation process and its Benefits • The Three Asset Allocation Strategies • Asset Location • Equity Investment Strategies		CIMA Exam Detailed Content Outline at II. Investments. Relevant subtopics include Sections on Asset vehicles (II.A) and the asset classes including equity (II.B), fixed income (II.C), Alternatives (II.D), Options, Futures, and Derivatives (II.E), and Real Assets (II.F) *** CIMA Exam Detailed Content Outline at III. Portfolio Theory and Behavioral Finance Relevant subtopics include III.A Portfolio Theories and Models §III.A.1 (Modern portfolio theory [MPT] assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio allocation) and §III.A.2 (Efficient market hypothesis: weak, semi-strong, and strong) and §III.A.3 (Capital asset pricing model [CAPM], including systematic [market risk], non-systematic [idiosyncratic risk] and security market line [SML]) and §III.A.4 (Arbitrage pricing theory [APT] explanatory models regions) and §III.A.5 (Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies) and III.C Investment Philosophies and Styles

		§III.C.1 (Factor-based indexing [e.g., smart beta, fundamental indexing], including factors [Fama and French, etc.]) and §III.C.2 (Benefits/risks of multi- and single- factor portfolios) and §III.C.3 (Factor-based investing in active management and risk management) and §III.C.4 (Responsible investing [e.g., socially responsible investing {SRI}; environmental, social, and governance {ESG}; sustainable; impact] benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy]) and §III.C.5 (Tax-aware investment strategies [e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location]) and §III.C.6 (Investment styles [e.g., active, passive] and the conventional rationale for each) and III.D Tools and Strategies §III.D.1 (Market trends [time cycles], continuation, and corrections) and §III.D.2 (Technical analysis [e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators]) and §III.D.3 (Tactical and dynamic asset allocation strategies) and V.B Client Discovery §V.B.1 (Investment management models such as goals-based investment management [including accumulation and decumulation] and liability-driven strategies [e.g., portfolio immunization, cash-flow matching]) and §V.B.2 (Relationship between time horizon and expected return vs. terminal value result of investment management models) and V.C Investment Policy §V.C.1 (Asset allocation methodology [e.g., spending policy and its implications on asset allocation,

		strategic vs. tactical asset allocation, core and satellite strategy, total return]) and §V.C.2 (Client-specific concepts to cover in an investment policy statement [e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return]) and V.D Portfolio Construction §V.D.1 (Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies) and §V.D.2 (Uses/advantages/disadvantages of Value-at-Risk [VaR] and Monte Carlo simulations of investment management models) and §V.D.3 (Scenario and stress testing methodologies [e.g., historical simulation and prospective simulation]) and
4. Equity Securities -Equity Securities • Factors to Consider When Deciding Between Individual Equity Securities and Managed Products • The Characteristics and Features of Equity Securities • Canadian and U.S. Equity Markets -Analysis of Equity Securities I: Economic and Industry Analysis • Economic Analysis • How Economic Analysis Drives the Development of Investment Strategies • Economic Forecasts • Key Economic Metrics • Industry Analysis -Analysis of Equity Securities II: Company Analysis and Valuation • The Difference Between IFRS and GAAP? • Company Analysis • Models for Valuing Stocks	Chapter 7 Managing Equity Portfolios • Bottom-Up and Top-Down Approaches • Portfolio Management Styles • The Use of Derivatives in Equity Portfolio Management • Tax Considerations • The Use of Exchange-Traded Funds (ETFs) in Equity Portfolio Management	CIMA Exam Detailed Content Outline at I. Fundamentals. Relevant subtopics include I.A Statistics and Methods §I.A.1 (Basic statistical measures [e.g., measures of central tendency, dispersion, variability, skewness, kurtosis]) and §I.A.2 (Basic statistical concepts [e.g., the normal distribution, probability, sampling from a population, significance testing]) and §I.A.3 (Interpretation of potential investment outcomes of statistical results from probabilistic models [e.g., Monte Carlo simulation]) and §I.A.4 (Correlation, regression, and multiple regression concepts, methods, and interpretation) and §I.A.5 (Time series and trend analysis concepts, methods, and interpretation [e.g., seasonality, mean reversion, multi-period forecasting, smoothing]) and

• How to Analyze Resource Companies • The Limits of Accounting Data -Technical Analysis • What Are the Basics of Technical Analysis? • What Is Chart Analysis? • What Is Statistical Analysis? • What Are Sentiment Indicators? • What Is Intermarket Analysis? • How Can Technical Analysis Be Used? • How Can Technical Analysis and Fundamental Analysis Be Used Together?		I.B Applied Finance and Economics §I.B.1 (Methods and concepts pertaining to calculation of time value of money [e.g., nominal and effective interest rates, compounding, discounting, rate of return, present and future value]) and §I.B.2 (Major areas of economic thought, including Keynesian economics, Austrian School economics, and monetarism) and §I.B.3 (Economic concepts and principles [e.g., supply and demand, equilibrium through graphical representation, micro- and macroeconomic theory]) and §I.B.4 (Monetary and fiscal policy [e.g., role of central banks, interest rates {determination of, nominal and real}, yield spreads and curve, velocity of money, taxation, government spending]) and §I.B.5 (Stages of a business/economic cycle, including expansion, peak, contraction, and trough; price level environments/ concepts, including inflation, deflation, stagnation; business cycle dating; and the effect of monetary and fiscal policy on business cycles) and §I.B.6 (Macroeconomic measurements, including leading, coincident, and lagging gross domestic product [GDP] indicators and price level indicators) and §I.B.7 (Demographic effects on economies) and §I.B.8 (Global economics, theory, and trade [e.g., comparative and absolute advantage; balance of payments; roles of the International Monetary Fund, World Bank, and World Trade Organization]) and §I.B.9 (Global currency valuation [global exchange-rate system, spot and forward exchange rates, dollarization, currency pegs, fixed and floating rates, reject purchasing power parity, special drawing rights])

		and I.C Global Capital Markets §I.C.1 (Interest rates and inflation in developed and emerging markets, including history of government and corporate defaults and the gold standard) and §I.C.2 (Equity valuation in developed, emerging, and frontier markets [e.g., cyclical and secular bull and bear markets, extremes of equity valuation over time and within various secular market cycles]) and §I.C.3 (Linkages between economic growth and capital market return) and CIMA Exam Detailed Content Outline at II. Investments. Relevant subtopics include II.A Investment Vehicles §II.A.1 (Differences between investment vehicles [e.g., exchange-traded products {ETPs}, mutual funds, closed-ends, mandates, separately managed accounts {SMAs}, unit investment trusts, individual securities, annuities]) and §II.A.2 (Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics) and §II.A.3 (Trends in the use of exchange-traded products [ETPs] and the impact of their wide adoption on markets) and §II.A.4 (Cost, transparency, and liquidity of various investment vehicles [e.g., exchange-traded products {ETP}, limited partnerships {LP}, fund of funds, mutual funds, closed-end funds, annuities]) and II.B Equity §II.B.1 (Equity characteristics by size [capitalization], style [growth or value)] volatility [defensive vs. cyclical], capital structure [preferred stock]), domestic vs. international, developed vs. emerging vs. frontier, Global/American Depositary Receipts [GDRs/ ADRs] vs. ordinary shares) and

		§II.B.2 (Equity valuation methods [i.e., security analysis, economic analysis, fundamental analysis]) and §II.B.3 (Global indices of equity [e.g., price-weighted, cap-weighted, fundamentally weighted, equal-weighted]) and §II.B.4 (Potential benefits and risks of international equity diversification in a portfolio) and §II.B.5 (Changes in correlations of investment returns over time across sectors, countries, and regions) and §II.B.6 (Equity market valuation methods [i.e., price-earnings ratio {P/E ratio}, growth rate, book-to-market ratio, Q ratio]) and §II.B.7 (Individual equity security analysis [e.g., fundamental analysis, valuation techniques, screening techniques]).and II.E Options, Futures, and Other Derivatives §II.E.1 (Characteristics and concepts regarding options [e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants]) and §II.E.2 (Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio) and §II.E.3 (Differences between hedging and speculating). and CIMA Exam Detailed Content Outline at III. Portfolio Theory and Behavioral Finance Relevant subtopics include III.A Portfolio Theories and Models Relevant subtopics include

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5. Debt Securities -Debt Securities • Reasons for Investing In Debt Securities? • Characteristics of Debt Securities • Risk Factors of Debt Securities • Mechanics of Debt Market Trading -Analysis of Debt Securities I: Valuation, Term Structure and Pricing • How to Value Debt Securities • The Term Structure of Interest Rates • Determining the Prices of Debt Securities -Analysis of Debt Securities II: Price Volatility and Investment Strategies • The Key Concepts of Bond Price Volatility	Chapter 8 Managing Fixed Income Portfolios • Fixed-Income Trading Operations • Bond Management Styles • Box Trades • Other Techniques In Bond Portfolio Construction • High Yield (Junk) Bonds • Fixed Income Exchange-Traded Funds (ETFs)	CIMA Exam Detailed Content Outline at II. Investments. Relevant subtopics include II.A Investment Vehicles §II.A.1 (Differences between investment vehicles [e.g., exchange-traded products {ETPs}, mutual funds, closed-ends, mandates, separately managed accounts {SMAs}, unit investment trusts, individual securities, annuities]) and §II.A.2 (Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics) and §II.A.3 (Trends in the use of exchange-traded products [ETPs] and the impact of their wide adoption on markets) and §II.A.4 (Cost, transparency, and liquidity of various investment vehicles [e.g., exchange-traded products {ETP}, limited partnerships {LP}, fund of funds, mutual funds, closed-end funds, annuities]) and II.C Fixed Income §II.C.1 (Types of fixed income securities [e.g., government, municipal, corporate, money-market instruments, convertibles, high-yield]) and §II.C.2 (Characteristics of fixed income investments including basic features [priority of claims with capital structure], coupon structures, payment methods, and options based on several parameters [i.e., quality; maturity, duration, and convexity; issue size; fixed or floating rate coupons; call features; yield to maturity {YTM} and yield to worst {YTW}]) and

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<tr><td></td><td></td><td>§II.C.3 (Pricing of fixed income securities [e.g., relative rates, discounts and premiums, inflation-adjusted valuation, duration]) and

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§II.C.6 (Individual fixed income security analysis [e.g., fundamental analysis, valuation techniques, screening techniques]).</td></tr>
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		§II.B.2 (Equity valuation methods [i.e., security analysis, economic analysis, fundamental analysis]) and §II.B.3 (Global indices of equity [e.g., price-weighted, cap-weighted, fundamentally weighted, equal-weighted]) and §II.B.4 (Potential benefits and risks of international equity diversification in a portfolio) and §II.B.5 (Changes in correlations of investment returns over time across sectors, countries, and regions) and §II.B.6 (Equity market valuation methods [i.e., price-earnings ratio {P/E ratio}, growth rate, book-to-market ratio, Q ratio]) and §II.B.7 (Individual equity security analysis [e.g., fundamental analysis, valuation techniques, screening techniques]).and II.C Fixed Income §II.C.1 (Types of fixed income securities [e.g., government, municipal, corporate, money-market instruments, convertibles, high-yield]) and §II.C.2 (Characteristics of fixed income investments including basic features [priority of claims with capital structure], coupon structures, payment methods, and options based on several parameters [i.e., quality; maturity, duration, and convexity; issue size; fixed or floating rate coupons; call features; yield to maturity {YTM} and yield to worst {YTW}]) and §II.C.3 (Pricing of fixed income securities [e.g., relative rates, discounts and premiums, inflation-adjusted valuation, duration]) and §II.C.4 (Common fixed income indices and benchmarks) and §II.C.5 (Potential benefits and risks in international fixed income diversification) and

		§II.C.6 (Individual fixed income security analysis [e.g., fundamental analysis, valuation techniques, screening techniques]). II.D Alternative Investments §II.D.1 (Distinction between alternative investment strategy [e.g., long-short, merger arbitrage] and structure [e.g., limited partner {LP}, mutual fund, exchange-traded products {ETP}]) and §II.D.2 (Difference in liquid and illiquid strategies) and §II.D.3 (Differences in alternative investments [e.g., real estate, commodities, private equity, venture capital, private debt, infrastructure], characteristics, risks, tax ramifications, and expected returns) and §II.D.4 (Alternative investment structural considerations [e.g., transparency, liquidity, leverage, compensation/fee structures; significance of third-party custodianship and independent auditing; funds of funds; heightened due diligence; hedge fund vs. marketable vs. redeemable security structures]) and §II.D.5 (Use of alternative investment strategies in asset allocation design) and §II.D.6 (Concepts in evaluating alternative investment strategies [e.g., absolute return, arbitrage, long/short, managed futures, dedicated short bias, market neutral, event-driven, reinsurance, global macro]) and §II.D.7 (Alternative investment indices and benchmarks) and §II.D.8 (Share classes and their implications for various investment vehicles).and II.E Options, Futures, and Other Derivatives §II.E.1 (Characteristics and concepts regarding options [e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency

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7. International Investing and Taxation -International Investing • The Theoretical Basis for International Investing • The Size of the Global Equity Market • The Major International Equity Benchmarks • The Primary Advantages of International Investing • the Primary Disadvantages and Risks of International Investing • Foreign Investment Vehicles • The Skills Necessary for Effective International Investing • Do Asset Allocation Models Correctly Assess International Investment Opportunities? -International Taxation • International Tax Conflicts and Double Taxation • Sources of International Tax Law and How They Interrelate • Jurisdiction to Tax		CIMA Exam Detailed Content Outline at I. Fundamentals. Relevant subtopics include I.B Applied Finance and Economics §I.B.8 (Global economics, theory, and trade [e.g., comparative and absolute advantage; balance of payments; roles of the International Monetary Fund, World Bank, and World Trade Organization]) and §I.B.9 (Global currency valuation [global exchange-rate system, spot and forward exchange rates, dollarization, currency pegs, fixed and floating rates, reject purchasing power parity, special drawing rights]) and I.C Global Capital Markets §I.C.1 (Interest rates and inflation in developed and emerging markets, including history of government and corporate defaults and the gold standard) and

• Source Country Taxation • Residence Country Taxation		§I.C.2 (Equity valuation in developed, emerging, and frontier markets [e.g., cyclical and secular bull and bear markets, extremes of equity valuation over time and within various secular market cycles]) and §I.C.3 (Linkages between economic growth and capital market return) and CIMA Exam Detailed Content Outline at II. Investments. Relevant subtopics include CIMA Exam Detailed Content Outline at II. Investments. Relevant subtopics include II.A Investment Vehicles §II.A.2 (Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics) and II.B Equity §II.B.1 (Equity characteristics by size [capitalization], style [growth or value)] volatility [defensive vs. cyclical], capital structure [preferred stock]), domestic vs. international, developed vs. emerging vs. frontier, Global/American Depositary Receipts [GDRs/ ADRs] vs. ordinary shares) and §II.B.3 (Global indices of equity [e.g., price-weighted, cap-weighted, fundamentally weighted, equal-weighted]) and §II.B.4 (Potential benefits and risks of international equity diversification in a portfolio) and §II.B.5 (Changes in correlations of investment returns over time across sectors, countries, and regions) and II.C Fixed Income §II.C.5 (Potential benefits and risks in international fixed income II.D Alternative Investments §II.D.6 (Concepts in evaluating alternative investment strategies [e.g., absolute return, arbitrage, long/short, managed futures, dedicated short bias, market neutral, event-driven, reinsurance, global macro]) and

		II.E Options, Futures, and Other Derivatives §II.E.1 (Characteristics and concepts regarding options [e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants])
8. Managing Your Client's Investment Risk • What Are Investment Risks? • Measuring Investment Risk • How Diversification can Reduce Investment Risk • How to use Options to Reduce Investment Risk • How to use Futures Contracts to Reduce Investment Risk • How to use Contracts for Difference to Reduce Investment Risk • How to use Principal-Protected Notes to Reduce Investment Risk		CIMA Exam Detailed Content Outline at II. Investments. Relevant subtopics include II.E Options, Futures, and Other Derivatives §II.E.1 (Characteristics and concepts regarding options [e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants]) and §II.E.2 (Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio) and §II.E.3 (Differences between hedging and speculating) and IV. Risk and Return §IV.A.1 (Tools and techniques to leverage investments in a portfolio, including margin) and §IV.A.2 (Concepts of risk and uncertainty) and §IV.A.3 (Types of risk [e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit, reinvestment, shortfall, sequencing]) and §IV.B.1 (Knowledge of statistical concepts and metrics related to risk [e.g., standard deviation, tail risk, downside risk, beta]) and

		§IV.B.2 (Differences between volatility and downside risk) and §IV.C.1 (Investment return calculation [e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-weighted and dollar-weighted rates of return, arithmetic and geometric average returns]) and §IV.C.2 (Strengths and weaknesses of different types of risk-adjustment analysis [e.g., alpha, R-squared coefficient])) and §IV.C.3 (Benchmarking methods [e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization]) and §IV.C.4 (Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk) and §IV.C.5 (Universe biases [e.g., survivorship, reporting bias]) and III.A Portfolio Theories and Models §III.A.1 (Modern portfolio theory [MPT] assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio allocation) and §III.A.2 (Efficient market hypothesis: weak, semi-strong, and strong) and §III.A.3 (Capital asset pricing model [CAPM], including systematic [market risk], non-systematic [idiosyncratic risk] and security market line [SML])and §III.A.4 (Arbitrage pricing theory [APT] explanatory models regions) and §III.A.5 (Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies) and III.C Investment Philosophies and Styles §III.C.1 (Factor-based indexing [e.g., smart beta, fundamental indexing],

		including factors [Fama and French, etc]) and §III.C.2 (Benefits/risks of multi- and single- factor portfolios) and §III.C.3 (Factor-based investing in active management and risk management) and §III.C.4 (Responsible investing [e.g., socially responsible investing {SRI}; environmental, social, and governance {ESG}; sustainable; impact] benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy]) and §III.C.5 (Tax-aware investment strategies [e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location]) and §III.C.6 (Investment styles [e.g., active, passive] and the conventional rationale for each) and III.D Tools and strategies §III.D.1 (Market trends [time cycles], continuation, and corrections) and §III.D.2 (Technical analysis [e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators]) and §III.D.3 (Tactical and dynamic asset allocation strategies) and V.C Investment Policy §V.C.2 (Client-specific concepts to cover in an investment policy statement [e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return])
9. Impediments to Wealth Accumulation • The Burdens of Wealth Accumulation • Tax-Minimization Portfolio Management Strategies • Tax-Efficient Investments • Inflation-Sensitive Assets • Cost-Efficient Investments		CIMA Exam Detailed Content Outline at II. Investments. Relevant subtopics include II.A Investment Vehicles §II.A.1 (Differences between investment vehicles [e.g., exchange-traded products {ETPs}, mutual funds, closed-ends, mandates, separately managed accounts {SMAs}, unit

		investment trusts, individual securities, annuities]) and §II.A.2 (Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics) and §II.A.3 (Trends in the use of exchange-traded products [ETPs] and the impact of their wide adoption on markets) and §II.A.4 (Cost, transparency, and liquidity of various investment vehicles [e.g., exchange-traded products {ETP}, limited partnerships {LP}, fund of funds, mutual funds, closed-end funds, annuities]) and III.B Behavioral Finance Theory §III.B.1 (Cognitive biases and mental heuristics related to existing beliefs and information processing concepts) and §III.B.2 (Biases and mental heuristics [e.g., loss aversion, overconfidence, self-control, status quo, endowment, regret aversion, affinity]) and §III.B.3 (Portfolio construction based on behavioral bias) and §III.B.4 (Common behavioral investor types [e.g., preservers, followers, independents, accumulators] and how to work with each effectively in practice) and §III.B.5 (Methods of overcoming cognitive and emotional bias) and III.C Investment Philosophies and Styles §III.C.1 (Factor-based indexing [e.g., smart beta, fundamental indexing], including factors [Fama and French, etc]) and §III.C.2 (Benefits/risks of multi- and single- factor portfolios) and §III.C.3 (Factor-based investing in active management and risk management) and

		§III.C.4 (Responsible investing [e.g., socially responsible investing {SRI}; environmental, social, and governance {ESG}; sustainable; impact] benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy]) and §III.C.5 (Tax-aware investment strategies [e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location]) and §III.C.6 (Investment styles [e.g., active, passive] and the conventional rationale for each) and III.D Tools and strategies §III.D.1 (Market trends [time cycles], continuation, and corrections) and §III.D.2 (Technical analysis [e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators]) and §III.D.3 (Tactical and dynamic asset allocation strategies) and IV. Risk and Return IV.A Risk §IV.A.1 (Tools and techniques to leverage investments in a portfolio, including margin) and §IV.A.2 (Concepts of risk and uncertainty) and §IV.A.3 (Types of risk [e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit, reinvestment, shortfall, sequencing]) and IV.B Risk Measurements §IV.B.1 (Knowledge of statistical concepts and metrics related to risk [e.g., standard deviation, tail risk, downside risk, beta]) and §IV.B.2 (Differences between volatility and downside risk) and IV.C Performance Measurement and Attribution §IV.C.1 (Investment return calculation [e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-

		weighted and dollar-weighted rates of return, arithmetic and geometric average returns]) and §IV.C.2 (Strengths and weaknesses of different types of risk-adjustment analysis [e.g., alpha, R-squared coefficient])) and §IV.C.3 (Benchmarking methods [e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization]) and §IV.C.4 (Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk) and §IV.C.5 (Universe biases [e.g., survivorship, reporting bias]) and V.D Portfolio Construction §V.D.1 (Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies) and §V.D.2 (Uses/advantages/disadvantages of Value-at-Risk [VaR] and Monte Carlo simulations of investment management models) and §V.D.3 (Scenario and stress testing methodologies [e.g., historical simulation and prospective simulation])
10. Portfolio Monitoring and Performance • Portfolio Monitoring • Portfolio Performance Evaluation		See CIMA Exam Detailed Content Outline at V. Portfolio Construction and Consulting Process. Specific subtopics include: V.A IWI's Code of Professional Responsibility §V.A.1 (Investments & Wealth Institute *Code of Professional Responsibility* [which incorporates an advisors' actual legal and regulatory requirements in practice into the knowledge that such advisor needs to know]) and V.B Client Discovery

		§V.B.1 (Investment management models such as goals-based investment management [including accumulation and decumulation] and liability-driven strategies [e.g., portfolio immunization, cash-flow matching]) and §V.B.2 (Relationship between time horizon and expected return vs. terminal value result of investment management models) and V.C Investment Policy §V.C.1 (Asset allocation methodology [e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return]) and §V.C.2 (Client-specific concepts to cover in an investment policy statement [e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return]) and §V.C.3 (Investment-related concepts to cover in an investment policy statement [e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets]) and §V.C.4 (Governance and ethics-related concepts to cover in an investment policy statement [e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements]) and V.D Portfolio Construction §V.D.1 (Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies) and §V.D.2 (Uses/advantages/disadvantages of Value-at-Risk [VaR] and Monte Carlo simulations of investment management models) and §V.D.3 (Scenario and stress testing methodologies [e.g., historical

		simulation and prospective simulation]) and V.E Manager Search, Selection, and Monitoring §V.E.1 (Components of manager due diligence) and §V.E.2 (Active share) and §V.E.3 (Manager styles and asset class structures) and §V.E.4 (The benefits and caveats of manager structuring including a multi-manager approach) and V.F Portfolio Review and Revisions §V.F.1 (Rebalancing methodologies and considerations).
	Chapter 12. Client Portfolio Reporting and Performance Attribution • Client Portfolio Reporting • Portfolio Management Reports • Performance Attribution	See CIMA Exam Detailed Content Outline at IV. Risk and Return. Specific subtopics include: IV. Risk and Return IV.A Risk §IV.A.1 (Tools and techniques to leverage investments in a portfolio, including margin) and §IV.A.2 (Concepts of risk and uncertainty) and §IV.A.3 (Types of risk [e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit, reinvestment, shortfall, sequencing]) and IV.B Risk Measurements §IV.B.1 (Knowledge of statistical concepts and metrics related to risk [e.g., standard deviation, tail risk, downside risk, beta]) and §IV.B.2 (Differences between volatility and downside risk) and IV.C Performance Measurement and Attribution §IV.C.1 (Investment return calculation [e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-weighted and dollar-weighted rates of return, arithmetic and geometric average returns]) and

<table>
<tr><td></td><td></td><td>§IV.C.2 (Strengths and weaknesses of different types of risk-adjustment analysis [e.g., alpha, R-squared coefficient])) and

§IV.C.3 (Benchmarking methods [e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization]) and

§IV.C.4 (Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk) and

§IV.C.5 (Universe biases [e.g., survivorship, reporting bias])</td></tr>
<tr><td></td><td>Chapter 4 The Investment Management Firm
• Ownership and Compensation Structures
• Regulations and Licensing
• Organizational Structure
• Investor Types
• Service Channels
• Investment Mandates
• Roles and Responsibilities of Institutional Investment Managers
• Investment Management Fees
• Industry Challenges
• Corporate Governance

Chapter 5 The Front Office
• Overview of the Front Office
• The Four Areas of the Front Office
• Information Flow Among Front-Office Staff
• Best Practices of the Front Office
• Getting Clients
• Losing Clients

Chapter 6 The Middle and Back Offices
• Overview of the Middle Office
• The Middle Office
• The Back Office</td><td>These topics per se are not part of the CIMA program. However, three years of financial services experience is required to become certified. This means CIMA certificants would naturally have knowledge of his or her investment management firm and all of the sub-issues listed thereunder. Moreover, the ethics requirement requires knowledge of the legal and regulatory requirements in one's practice, which means CIMA certified persons would, by the experience and ethics requirement and continuing requirements, would be required to have knowledge of these topics and to practice this knowledge.</td></tr>
</table>

CIMA-CFA Comparison

The table below compares the content outlines of CIMA® certification with CFA topics.

CFA Program (taken from Candidate Body of Knowledge Topic Outline available on CFA Institute's website at http://www.cfainstitute.org/programs/cfaprogram/courseofstudy/Pages/cbok.aspx	CIMA Program (taken from Core Topic Outline for CIMA Certification)
I. Ethical and Professional Standards A. Professional Standards of Practice B. Ethical Practices	CIMA Exam Detailed Content Outline at §V.A.1 IWI's Code of Professional Responsibility (requiring CIMA certificants to know the Code and his or her legal and regulatory requirements)
II. Quantitative Methods A. Time Value of Money	CIMA Exam Detailed Content Outline at §I.B.1 (Methods and concepts pertaining to calculation of time value of money [e.g., nominal and effective interest rates, compounding, discounting, rate of return, present and future value])
II. Quantitative Methods * * * B. Probability C. Probability Distributions and Descriptive Statistics D. Sampling and Estimation E. Hypothesis Testing F. Correlation Analysis and Regression G. Time Series Analysis H. Simulation Analysis	CIMA Exam Detailed Content Outline at §I.A.1 (Basic statistical measures [e.g., measures of central tendency, dispersion, variability, skewness, kurtosis]) and §I.A.2 (Basic statistical concepts [e.g., the normal distribution, probability, sampling from a population, significance testing]) and §I.A.3 (Interpretation of potential investment outcomes of statistical results from probabilistic models [e.g., Monte Carlo simulation]) and §I.A.4 (Correlation, regression, and multiple regression concepts, methods, and interpretation) and §I.A.5 (Time series and trend analysis concepts, methods, and interpretation [e.g., seasonality, mean reversion, multi-period forecasting, smoothing])
III. Economics A. Market Forces of Supply and Demand B. The Firm and Industry Organization C. Measuring National Income and Growth D. Business Cycles E. The Monetary System F. Inflation G. International Trade and Capital Flows H. Currency Exchange Rates I. Monetary and Fiscal Policy J. Economic Growth and Development K. Effects of Government Regulation L. Impact of Economic Factors on Investment Markets	CIMA Exam Detailed Content Outline at I.B Applied Finance and Economics §I.B.1 (Methods and concepts pertaining to calculation of time value of money [e.g., nominal and effective interest rates, compounding, discounting, rate of return, present and future value]) and §I.B.2 (Major areas of economic thought, including Keynesian economics, Austrian School economics, and monetarism) and §I.B.3 (Economic concepts and principles [e.g., supply and demand, equilibrium through graphical representation, micro- and macroeconomic theory]) and §I.B.4 (Monetary and fiscal policy [e.g., role of central banks, interest rates {determination of, nominal and real}, yield spreads and curve, velocity of money, taxation, government spending]) and §I.B.5 (Stages of a business/economic cycle, including expansion, peak, contraction, and trough; price level environments/ concepts,

CFA Program (taken from Candidate Body of Knowledge Topic Outline available on CFA Institute's website at http://www.cfainstitute.org/programs/cfaprogram/courseofstudy/Pages/cbok.aspx	**CIMA Program** (taken from Core Topic Outline for CIMA Certification)
	including inflation, deflation, stagnation; business cycle dating; and the effect of monetary and fiscal policy on business cycles) and §I.B.6 (Macroeconomic measurements, including leading, coincident, and lagging gross domestic product [GDP] indicators and price level indicators) and §I.B.7 (Demographic effects on economies) and §I.B.8 (Global economics, theory, and trade [e.g., comparative and absolute advantage; balance of payments; roles of the International Monetary Fund, World Bank, and World Trade Organization]) and §I.B.9 (Global currency valuation [global exchange-rate system, spot and forward exchange rates, dollarization, currency pegs, fixed and floating rates, reject purchasing power parity, special drawing rights]) and I.C Global Capital Markets §I.C.1 (Interest rates and inflation in developed and emerging markets, including history of government and corporate defaults and the gold standard) and §I.C.2 (Equity valuation in developed, emerging, and frontier markets [e.g., cyclical and secular bull and bear markets, extremes of equity valuation over time and within various secular market cycles]) and §I.C.3 (Linkages between economic growth and capital market return)
CFA Program focusses on assessment of individual equities IV. Financial Reporting and Analysis A. Financial Reporting System (IFRS and GAAP) B. Principal Financial Statements C. Financial Reporting Quality D. Analysis of Inventories E. Analysis of Long-Lived Assets F. Analysis of Taxes G. Analysis of Debt H. Analysis of Off-Balance-Sheet Assets and Liabilities I. Analysis of Pensions, Stock Compensation, and Other Employee Benefits J. Analysis of Inter-Corporate Investments K. Analysis of Business Combinations L. Analysis of Global Operations M. Ratio and Financial Analysis	***CIMA Certification focusses more on selecting appropriate asset managers as opposed to analyzing individual companies*** See CIMA Exam Detailed Content Outline at V. Portfolio Construction and Consulting Process. Specific subtopics include: V.A IWI's Code of Professional Responsibility §V.A.1 (Investments & Wealth Institute *Code of Professional Responsibility* [which incorporates an advisors' actual legal and regulatory requirements in practice into the knowledge that such advisor needs to know]) and V.B Client Discovery §V.B.1 (Investment management models such as goals-based investment management [including accumulation and decumulation] and liability-driven strategies [e.g., portfolio immunization, cash-flow matching]) and §V.B.2 (Relationship between time horizon and expected return vs. terminal value result of investment management models) and

CFA Program (taken from Candidate Body of Knowledge Topic Outline available on CFA Institute's website at http://www.cfainstitute.org/programs/cfaprogram/courseofstudy/Pages/cbok.aspx	**CIMA Program** (taken from Core Topic Outline for CIMA Certification)
V. Corporate Finance A. Corporate Governance B. Dividend Policy C. Capital Investment Decisions D. Business and Financial Risk E. Long-Term Financial Policy F. Short-Term Financial Policy G. Mergers and Acquisitions and Corporate Restructuring	V.C Investment Policy §V.C.1 (Asset allocation methodology [e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return]) and §V.C.2 (Client-specific concepts to cover in an investment policy statement [e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return]) and §V.C.3 (Investment-related concepts to cover in an investment policy statement [e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets]) and §V.C.4 (Governance and ethics-related concepts to cover in an investment policy statement [e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements]) and V.D Portfolio Construction §V.D.1 (Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies) and §V.D.2 (Uses/advantages/disadvantages of Value-at-Risk [VaR] and Monte Carlo simulations of investment management models) and §V.D.3 (Scenario and stress testing methodologies [e.g., historical simulation and prospective simulation]) and V.E Manager Search, Selection, and Monitoring §V.E.1 (Components of manager due diligence) and §V.E.2 (Active share) and §V.E.3 (Manager styles and asset class structures) and §V.E.4 (The benefits and caveats of manager structuring including a multi-manager approach) and V.F Portfolio Review and Revisions §V.F.1 (Rebalancing methodologies and considerations).

VI. Equity Investments A. Types of Equity Securities and Their Characteristics B. Equity Markets: Characteristics, Institutions, and Benchmarks C. Fundamental Analysis (Sector, Industry, Company) and the Valuation of Individual Equity Securities D. Equity Market Valuation and Return Analysis E. Special Applications of Fundamental Analysis (Residual Earnings) F. Equity of Hybrid Investment Vehicles	CIMA Exam Detailed Content Outline at II. Investments. Relevant subtopics include II.A Investment Vehicles §II.A.1 (Differences between investment vehicles [e.g., exchange-traded products {ETPs}, mutual funds, closed-ends, mandates, separately managed accounts {SMAs}, unit investment trusts, individual securities, annuities]) and §II.A.2 (Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics) and §II.A.3 (Trends in the use of exchange-traded products [ETPs] and the impact of their wide adoption on markets) and §II.A.4 (Cost, transparency, and liquidity of various investment vehicles [e.g., exchange-traded products {ETP}, limited partnerships {LP}, fund of funds, mutual funds, closed-end funds, annuities]) and II.B Equity §II.B.1 (Equity characteristics by size [capitalization], style [growth or value)] volatility [defensive vs. cyclical], capital structure [preferred stock]), domestic vs. international, developed vs. emerging vs. frontier, Global/American Depositary Receipts [GDRs/ADRs] vs. ordinary shares) and §II.B.2 (Equity valuation methods [i.e., security analysis, economic analysis, fundamental analysis]) and §II.B.3 (Global indices of equity [e.g., price-weighted, cap-weighted, fundamentally weighted, equal-weighted]) and §II.B.4 (Potential benefits and risks of international equity diversification in a portfolio) and §II.B.5 (Changes in correlations of investment returns over time across sectors, countries, and regions) and §II.B.6 (Equity market valuation methods [i.e., price-earnings ratio {P/E ratio}, growth rate, book-to-market ratio, Q ratio]) and §II.B.7 (Individual equity security analysis [e.g., fundamental analysis, valuation techniques, screening techniques]).and
VII. Fixed Income A. Types of Fixed-Income Securities and Their Characteristics B. Fixed-Income Markets: Characteristics, Institutions, and Benchmarks C. Fixed-Income Valuation (Sector, Industry, Company) and Return Analysis D. Term Structure Determination and Yield Spreads E. Analysis of Interest Rate Risk F. Analysis of Credit Risk G. Valuing Bonds with Embedded Options	II.C Fixed Income §II.C.1 (Types of fixed income securities [e.g., government, municipal, corporate, money-market instruments, convertibles, high-yield]) and §II.C.2 (Characteristics of fixed income investments including basic features [priority of claims with capital structure], coupon structures, payment methods, and options based on several parameters [i.e., quality; maturity, duration, and convexity; issue size; fixed or floating rate coupons; call features; yield to maturity {YTM} and yield to worst {YTW}]) and

H. Structured Products	§II.C.3 (Pricing of fixed income securities [e.g., relative rates, discounts and premiums, inflation-adjusted valuation, duration]) and §II.C.4 (Common fixed income indices and benchmarks) and §II.C.5 (Potential benefits and risks in international fixed income diversification) and §II.C.6 (Individual fixed income security analysis [e.g., fundamental analysis, valuation techniques, screening techniques]).
IX. Alternative Investments A. Types of Alternative Investments and Their Characteristics B. Real Estate C. Private Equity/Venture Capital D. Hedge Funds E. Closely Held Companies and Inactively Traded Securities F. Distressed Securities/Bankruptcies G. Commodities H. Tangible Assets with Low Liquidity	II.D Alternative Investments §II.D.1 (Distinction between alternative investment strategy [e.g., long-short, merger arbitrage] and structure [e.g., limited partner {LP}, mutual fund, exchange-traded products {ETP}]) and §II.D.2 (Difference in liquid and illiquid strategies) and §II.D.3 (Differences in alternative investments [e.g., real estate, commodities, private equity, venture capital, private debt, infrastructure], characteristics, risks, tax ramifications, and expected returns) and §II.D.4 (Alternative investment structural considerations [e.g., transparency, liquidity, leverage, compensation/fee structures; significance of third-party custodianship and independent auditing; funds of funds; heightened due diligence; hedge fund vs. marketable vs. redeemable security structures]) and §II.D.5 (Use of alternative investment strategies in asset allocation design) and §II.D.6 (Concepts in evaluating alternative investment strategies [e.g., absolute return, arbitrage, long/short, managed futures, dedicated short bias, market neutral, event-driven, reinsurance, global macro]) and §II.D.7 (Alternative investment indices and benchmarks) and §II.D.8 (Share classes and their implications for various investment vehicles).and II.F Real Assets §II.F.1 (How specialty assets perform differently from traditional assets) and §II.F.2 (Types of investment market access [e.g., direct and indirect ownership, listed and unlisted]) and §II.F.3 (Real asset market valuation methods, cycles, and dynamics) and §II.F.4 (How real estate, infrastructure, commodities, and other real assets fit into client overall asset allocation [including different sectors, benchmarking, and investment strategies]) and
VIII. Derivatives	II.E Options, Futures, and Other Derivatives

A. Types of Derivative Instruments and Their Characteristics B. Forward Markets and Instruments C. Futures Markets and Instruments D. Options Markets and Instruments E. Swaps Markets and Instruments F. Credit Derivatives Markets and Instruments	§II.E.1 (Characteristics and concepts regarding options [e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants]) and §II.E.2 (Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio) and §II.E.3 (Differences between hedging and speculating)
X. Portfolio Management and Wealth Planning A. The Investment Policy Statement B. Modern Portfolio Management Concepts C. Investment Vehicles D. Behavioral Finance E. Technical Analysis F. Environmental, Social, and Governance (ESG) Investing G. Management of Individual/Family Investor Portfolios H. Management of Institutional Investor Portfolios I. Investment Manager Selection J. Economic Analysis and Setting Capital Market Expectations K. Tax Impact of Investment Decisions L. Asset Allocation M. Portfolio Construction and Revision N. Risk Management O. Market Indexes P. Execution of Portfolio Decisions (Trading) Q. Performance Evaluation R. Presentation of Performance Results •	CIMA Exam Detailed Content Outline at III. Portfolio Theory and Behavioral Finance III.A Portfolio Theories and Models §III.A.1 (Modern portfolio theory [MPT] assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio allocation) and §III.A.2 (Efficient market hypothesis: weak, semi-strong, and strong) and §III.A.3 (Capital asset pricing model [CAPM], including systematic [market risk], non-systematic [idiosyncratic risk] and security market line [SML]) and §III.A.4 (Arbitrage pricing theory [APT] explanatory models regions) and §III.A.5 (Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies) and III.B Behavioral Finance Theory §III.B.1 (Cognitive biases and mental heuristics related to existing beliefs and information processing concepts) and §III.B.2 (Biases and mental heuristics [e.g., loss aversion, overconfidence, self-control, status quo, endowment, regret aversion, affinity]) and §III.B.3 (Portfolio construction based on behavioral bias) and §III.B.4 (Common behavioral investor types [e.g., preservers, followers, independents, accumulators] and how to work with each effectively in practice) and §III.B.5 (Methods of overcoming cognitive and emotional bias) and III.C Investment Philosophies and Styles §III.C.1 (Factor-based indexing [e.g., smart beta, fundamental indexing], including factors [Fama and French, etc.]) and §III.C.2 (Benefits/risks of multi- and single- factor portfolios) and §III.C.3 (Factor-based investing in active management and risk management) and §III.C.4 (Responsible investing [e.g., socially responsible investing {SRI}; environmental, social, and governance {ESG}; sustainable;

	impact] benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy]) and §III.C.5 (Tax-aware investment strategies [e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location]) and §III.C.6 (Investment styles [e.g., active, passive] and the conventional rationale for each) and III.D Tools and Strategies §III.D.1 (Market trends [time cycles], continuation, and corrections) and §III.D.2 (Technical analysis [e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators]) and §III.D.3 (Tactical and dynamic asset allocation strategies) and IV. Risk and return §IV.A.1 (Tools and techniques to leverage investments in a portfolio, including margin) and §IV.A.2 (Concepts of risk and uncertainty) and §IV.A.3 (Types of risk [e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit, reinvestment, shortfall, sequencing]) and §IV.B.1 (Knowledge of statistical concepts and metrics related to risk [e.g., standard deviation, tail risk, downside risk, beta]) and §IV.B.2 (Differences between volatility and downside risk) and §IV.C.1 (Investment return calculation [e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-weighted and dollar-weighted rates of return, arithmetic and geometric average returns]) and §IV.C.2 (Strengths and weaknesses of different types of risk-adjustment analysis [e.g., alpha, R-squared coefficient])) and §IV.C.3 (Benchmarking methods [e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization]) and §IV.C.4 (Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk) and §IV.C.5 (Universe biases [e.g., survivorship, reporting bias]) and V. Portfolio Construction and Consulting Process. V.A IWI's Code of Professional Responsibility §V.A.1 (Investments & Wealth Institute *Code of Professional Responsibility* [which incorporates an advisors' actual legal and regulatory requirements in practice into the knowledge that such advisor needs to know]) and V.B Client Discovery

	§V.B.1 (Investment management models such as goals-based investment management [including accumulation and decumulation] and liability-driven strategies [e.g., portfolio immunization, cash-flow matching]) and §V.B.2 (Relationship between time horizon and expected return vs. terminal value result of investment management models) and V.C Investment Policy §V.C.1 (Asset allocation methodology [e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return]) and §V.C.2 (Client-specific concepts to cover in an investment policy statement [e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return]) and §V.C.3 (Investment-related concepts to cover in an investment policy statement [e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets]) and §V.C.4 (Governance and ethics-related concepts to cover in an investment policy statement [e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements]) and V.D Portfolio Construction §V.D.1 (Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies) and §V.D.2 (Uses/advantages/disadvantages of Value-at-Risk [VaR] and Monte Carlo simulations of investment management models) and §V.D.3 (Scenario and stress testing methodologies [e.g., historical simulation and prospective simulation]) and V.E Manager Search, Selection, and Monitoring §V.E.1 (Components of manager due diligence) and §V.E.2 (Active share) and §V.E.3 (Manager styles and asset class structures) and §V.E.4 (The benefits and caveats of manager structuring including a multi-manager approach) and V.F Portfolio Review and Revisions §V.F.1 (Rebalancing methodologies and considerations).

1. Regulatory Environment and Ethics

1.1 Regulatory and operating environments		
Knowledge	**Behaviour and Skills**	**CIMA**

• Regulatory requirements, including:
o Business conduct
o Trade conduct
o Know Your Client (KYC)
o Know Your Product (KYP)
o Conflicts of interest, including prohibited personal financial dealings with clients
o Disclosures to clients
o Differences between the role of APMs and PMs
o Anti money laundering (AML) and terrorist financing requirements
o Dealer and regulatory restrictions regarding external communication
o Investment management fees, fee structures and applicable guidelines for compensation
• Changes to the regulatory landscape, including:
o Fee-based account trends
o Online advice
o Organizational structure, key roles, and responsibilities of others in servicing a managed account client:
  • Relationship managers
  • Sub-advisors
  • Fund managers
	• Consider fundamental regulatory and industry knowledge
	• Keep up to date with industry trends and changes to regulatory requirements as it applies to discretionary managed business
	• Exercise discretionary authority on managed accounts while abiding by regulatory requirements, keeping in mind the difference in the roles of APMs and PMs
	• Identify the key internal employees and Approved Persons (Aps) to support the role as a PM
	• Build relationships with the different areas at the firm
	• Identify the difference between servicing retail clients compared to institutional clients
	• Identify the key internal roles and how information flows to help foster investor protection
	• Identify the different types of communications for clients and adhere to dealer's best practices and regulatory rules and guidelines regarding social media and other external communication
	• Adhere to investment mandates and regulatory requirements when dealing with various types of clients
	• Consider regulatory trading requirements for various marketplaces, including stock exchanges and alternative trading systems (ATS)
		-CIMA Detailed Content Outline §V.A.1 Code of Professional Responsibility (Code)
		
		-Code of Professional Responsibility:
		1. Act in the best interest of the client.
		2. Disclose services to be offered and provided, related charges, and compensation.
		3. Disclose the existence of actual, potential, and/or perceived conflicts of interest and relevant financial relationships, direct and/or indirect. Take appropriate action to resolve or manage any such conflicts.
		4. Provide clients information needed to make informed decisions.
		5. Respond to client inquiries and instructions appropriately, promptly, completely, and truthfully.
		6. Maintain confidentiality of client information, however acquired, consistent with legal and regulatory requirements and firm policies.
		7. Provide competent service by truthful representation of competency, maintenance and/or development of professional capabilities, and, when appropriate, the recommendation of other professionals.
		8. Comply with legal and regulatory requirements related to one's practice of his or her profession.
		9. Maintain a high level of ethical conduct.

1.1 Regulatory and operating environments

Knowledge	Behaviour and Skills	CIMA
▪ Back office and head office functions ▪ Chief Investment Officer (CIO) ▪ Head of equities ▪ Head of fixed income ▪ Investment analysts ▪ Trade execution ▪ Sales and marketing ▪ Client service staff • Canadian Securities Administrators (CSA) o National instruments o Soft dollar arrangements • Client privacy requirements o Personal Information Protection and Electronic Documents Act (PIPEDA) requirements • Canadian Investor Protection Fund (CIPF) • Role of Office of the Superintendent of Financial Institutions (OSFI) • Types of communications with clients • Industry challenges • Corporate governance o Regulatory trading requirements for various marketplaces, including stock exchanges and alternative trading systems (ATS)		

1.2 Ethics

Knowledge	Behaviour and Skills	CIMA
• Importance of ethics • Ethical principles • Individual values and awareness • Ethical dilemmas • Framework for ethical decision making • Critical thinking skills • Importance of independence and objectivity • Unethical practices in securities trading • Written code of ethics and standards of conduct, including: o Loyalty to clients o Trading o Risk management, compliance, and support o Performance reporting and valuation, and disclosure	• Demonstrate behaviour that conforms to high standards of ethics and conduct • Apply critical thinking to identify and address ethical dilemmas and making ethical decisions • Apply high standards of ethics and conduct when dealing with clients and engaging in other professional activities, and promoting such behaviour with coworkers and employees • Act with independence and objectively • Carry out professional responsibilities in a thoughtful and objective manner, free from any personal Demonstrate behaviour that conforms to high standards of ethics and conduct • Apply critical thinking to identify and address ethical dilemmas and making ethical decisions • Apply high standards of ethics and conduct when dealing with clients and engaging in other professional activities, and promoting such behaviour with coworkers and employees • Act with independence and objectively Carry out professional responsibilities in a thoughtful and objective manner, free from any personal obligations, encumbrances, or biases, such as gifts or relationships that may influence judgement • Escalate matters of non-compliance and unethical behaviour as appropriate	-CIMA Detailed Content Outline §V.A.1 Code of Professional Responsibility (Code) -Code of Professional Responsibility: 1. Act in the best interest of the client. 2. Disclose services to be offered and provided, related charges, and compensation. 3. Disclose the existence of actual, potential, and/or perceived conflicts of interest and relevant financial relationships, direct and/or indirect. Take appropriate action to resolve or manage any such conflicts. 4. Provide clients information needed to make informed decisions. 5. Respond to client inquiries and instructions appropriately, promptly, completely, and truthfully. 6. Maintain confidentiality of client information, however acquired, consistent with legal and regulatory requirements and firm policies. 7. Provide competent service by truthful representation of competency, maintenance and/or development of professional capabilities, and, when appropriate, the recommendation of other professionals. 8. Comply with legal and regulatory requirements related to one's practice of his or her profession. 9. Maintain a high level of ethical conduct.

1.3 Fiduciary Duty

Knowledge	Behaviour and Skills	CIMA
• Principles of fiduciary relationships, including: o Relationship of trust o Duty of care o Duty of loyalty o Duty of good faith	• Uphold the principles of fiduciary relationships in all dealings with clients • Build and foster a relationship of trust • Serve the best interests of	-CIMA Detailed Content Outline §V.A.1 Code of Professional Responsibility (Code) -Code of Professional Responsibility: 1. Act in the best interest of the client.

o Acting in the best interest of clients • Management of conflicts of interest: o Address o Disclose o Avoid	clients • Act with independence and objectively with prudence • Act honestly and in good faith in dealings with clients • Avoid conflicts of interest, or disclose and address as appropriate • Consider client's needs and circumstances including those of vulnerable clients	2. Disclose services to be offered and provided, related charges, and compensation. 3. Disclose the existence of actual, potential, and/or perceived conflicts of interest and relevant financial relationships, direct and/or indirect. Take appropriate action to resolve or manage any such conflicts. 4. Provide clients information needed to make informed decisions. 5. Respond to client inquiries and instructions appropriately, promptly, completely, and truthfully. 6. Maintain confidentiality of client information, however acquired, consistent with legal and regulatory requirements and firm policies. 7. Provide competent service by truthful representation of competency, maintenance and/or development of professional capabilities, and, when appropriate, the recommendation of other professionals. 8. Comply with legal and regulatory requirements related to one's practice of his or her profession. 9. Maintain a high level of ethical conduct.

1.4 Managed Accounts

Knowledge	Behaviour and Skills	CIMA
• Dealer's policies and procedures regarding client information, new accounts, and updates to material client information • IIROC managed account requirements, including: o Suitability o Account appropriateness o Opening a managed account o Account approval o Managed account agreement o Supervision o Managed account committee o Managed account review o Fair allocation of investments • Relationship disclosure	• Develop a business and marketing plan to build and maintain a book of managed accounts within dealer and regulatory requirements • Use effective communication skills and inform clients about the necessary disclosures and nature of the discretionary relationship and managed accounts • Ensure team members, including APMs, use effective communication consistent with the regulatory requirements when dealing with clients • Ensure that matters are delegated appropriately	-CIMA Detailed Content Outline §V.A.1 Code of Professional Responsibility (Code) -Code of Professional Responsibility: 1. Act in the best interest of the client. 2. Disclose services to be offered and provided, related charges, and compensation. 3. Disclose the existence of actual, potential, and/or perceived conflicts of interest and relevant financial relationships, direct and/or indirect. Take appropriate action to resolve or manage any such conflicts. 4. Provide clients information needed to make informed decisions. 5. Respond to client inquiries and instructions appropriately, promptly, completely, and truthfully.

requirements • Primary responsibility over clients and restrictions on delegation • Confidentiality and Privacy legislation requirements		6. Maintain confidentiality of client information, however acquired, consistent with legal and regulatory requirements and firm policies. 7. Provide competent service by truthful representation of competency, maintenance and/or development of professional capabilities, and, when appropriate, the recommendation of other professionals. 8. Comply with legal and regulatory requirements related to one's practice of his or her profession. 9. Maintain a high level of ethical conduct.

1.5 Compliance and Supervision

Knowledge	Behaviour and Skills	CIMA
• Key roles and information flow • Role of the Supervisor of managed accounts • Role of managed account committee • Managed account review • Compliance, including: o Licensing and regulatory reporting o Sales and marketing o Advertising guidelines o Investment guidelines and restrictions • Best practices for risk control and securities trading, including: o Performance measurement o Signing authority matrix o Employee personal trading practices o Investment management agreement o Investment guidelines and restrictions	• Adhere to regulatory requirements and dealer's best practices for risk control and securities trading as it relates to portfolio management • Escalate situations of non-compliance to the appropriate Supervisor or compliance staff including Chief Compliance Officer (CCO)	-CIMA Detailed Content Outline §V.A.1 Code of Professional Responsibility (Code) -Code of Professional Responsibility: 1. Act in the best interest of the client. 2. Disclose services to be offered and provided, related charges, and compensation. 3. Disclose the existence of actual, potential, and/or perceived conflicts of interest and relevant financial relationships, direct and/or indirect. Take appropriate action to resolve or manage any such conflicts. 4. Provide clients information needed to make informed decisions. 5. Respond to client inquiries and instructions appropriately, promptly, completely, and truthfully. 6. Maintain confidentiality of client information, however acquired, consistent with legal and regulatory requirements and firm policies. 7. Provide competent service by truthful representation of competency, maintenance and/or development of professional capabilities, and, when appropriate, the recommendation of other professionals.

		8. Comply with legal and regulatory requirements related to one's practice of his or her profession. 9. Maintain a high level of ethical conduct.

2. Investment Policy

2.1 Investment Policy Statement		
Knowledge	**Behaviour and Skills**	**CIMA**
• Scope, purpose, and details of an investment policy statement (IPS) • KYC and KYP requirements • Investment objectives • o Return, including: ■ Measuring the return objective ■ Required return ■ Benchmarks ■ Retirement needs analysis o Risk, including: ■ Client's willingness to take on risk ■ Client's ability to take on risk ■ Establishing a risk tolerance and risk capacity ■ Defining a risk objective • Investment constraints and portfolio restrictions, including: o Time horizon o Liquidity requirements o Tax management o Legal and regulatory requirements o Environment, social, and governance (ESG) considerations and other personal values • Concentration and liquidity requirements • Leverage use and restrictions • Correlation, beta, and alpha • Multi-factor risk exposures • Asset mix categories • Types of financial instruments and their benefits and risks	• Formulate and draft a clear IPS, taking into consideration KYC, KVP and financial profile of a client • Ensure the IPS is tailored to the client and is suitable considering their investment objectives, constraints, and restrictions • Review the IPS with the client, use effective communication to explain the documented IPS, and make changes as necessary • Provide financial investment advice and recommendations to clients • Make investment decisions on managed accounts that are consistent with the IPS including constraints and concentration limits and use of leverage • Consider the limitations of the APM role before making changes to the portfolio	-CIMA Detailed Content Outline §V. Portfolio Construction and Consulting Process A. Code of Professional Responsibility 1. IWI Code of Professional Responsibility B. Client Discovery 1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching) 2. Relationship between time horizon and expected return vs. terminal value result of investment management models C. Investment Policy 1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return) 2. Client-specific concepts to cover in an investment policy statement (e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return) 3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets) 4. Governance and ethics-

		related concepts to cover in an investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements) D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models 3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation) E. Manager Search, Selection, and Monitoring 1. Components of manager due diligence 2. Active share 3. Manager styles and asset class structures 4. The benefits and caveats of manager structuring including a multi-manager approach F. Portfolio Review and Revisions 1. Rebalancing methodologies and considerations

2.2 Asset Allocation

Knowledge	Behaviour and Skills	CIMA
• Strategic asset allocation, including: o Mean-variance analysis o Human capital state variable sensitivity analysis o Equal-weighted vs. market-cap weighted o Home country bias o Portfolio allocation models such as Black-Litterman model • Typical asset allocation composition considering factors such as age, employment	• Develop and recommend a strategic asset allocation and ongoing asset allocation plan for a client account • Conduct portfolio rebalancing if necessary • For an APM, obtain the necessary pre-approval from a PM before: o Constructing an asset allocation and providing it to a client o Providing a new or revised	-CIMA Detailed Content Outline §V. Portfolio Construction and Consulting Process A. Code of Professional Responsibility 1. IWI Code of Professional Responsibility B. Client Discovery 1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching) 2. Relationship between

characteristics, time diversification and ad hoc approach • Dynamic asset allocation, including: o Temporal rebalancing o Weight-based rebalancing • Tactical asset allocation, including: o Value-based approach o Cyclical approach • The distinction between mechanical re-balancing and strategic re-balancing and when the APM needs pre-approval of the PM • Risks and benefits of using an asset allocation strategy • Model portfolios • Key aspects in selecting a rebalancing strategy o Benefits and costs of a rebalancing strategy	IPS or similar document that contains an asset allocation o Selecting a model portfolio for a client o Conducting rebalancing of a client's account that is not mechanical in nature	time horizon and expected return vs. terminal value result of investment management models C. Investment Policy 1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return) 2. Client-specific concepts to cover in an investment policy statement (e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return) 3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets) 4. Governance and ethics-related concepts to cover in an investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements) D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models 3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation) E. Manager Search, Selection, and Monitoring 1. Components of manager due diligence 2. Active share 3. Manager styles and asset class structures 4. The benefits and caveats of manager structuring

		including a multi-manager approach F. Portfolio Review and Revisions 1. Rebalancing methodologies and considerations

2.3 Transaction Costs, taxation and inflation

Knowledge	Behaviour and Skills	CIMA
• Impact of householding • Transaction costs, including: o Management fees o Trailer fees o Commission o Trading expense ratio (TER) • Tax treatments on different investment, including: o Interest income o Capital gains o Return of capital o Canadian source dividends o Foreign source income, dividends, and other types of distributions • Inflation • Portfolio management strategies to minimize tax, including: o Tax-loss harvesting o Crystallization o Reducing the yield of securities o Reducing the turnover of securities o Purchasing a put option • Characteristics of tax efficient investments • Efficiency ratios, including: o Capture ratio o Relative wealth measure o Morningstar tax cost ratio • Inflation-sensitive assets • Tax deferral plans	• Consider impact of householding and the appropriate transaction costs and fee structures in line with stated client agreements • Consider inflation and tax implications and other impediments to wealth accumulation when putting together suitable client portfolios • Assess the tax efficiency of investments using efficiency ratios • Implement portfolio management strategies to minimize the tax burden for client accounts • Implement fee structures in line with stated client agreements	-CIMA Detailed Content Outline §V. Portfolio Construction and Consulting Process A. Code of Professional Responsibility 1. IWI Code of Professional Responsibility B. Client Discovery 1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching) 2. Relationship between time horizon and expected return vs. terminal value result of investment management models C. Investment Policy 1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return) 2. Client-specific concepts to cover in an investment policy statement (e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return) 3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach,

2.3 Transaction Costs, taxation and inflation		
Knowledge	**Behaviour and Skills**	**CIMA**
		passive to active spectrum, location of assets) 4. Governance and ethics-related concepts to cover in an investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements) D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models 3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation) E. Manager Search, Selection, and Monitoring 1. Components of manager due diligence 2. Active share 3. Manager styles and asset class structures 4. The benefits and caveats of manager structuring including a multi-manager approach F. Portfolio Review and Revisions 1. Rebalancing methodologies and considerations

2.4 Trade Strategy and Execution		
Knowledge	**Behaviour and Skills**	**CIMA**
• Motivations to trade • Types of trades • Benchmarks for trade execution • Trading and settlement procedures • Bundled trades and fair allocation according to IIROC Rules • Trading procedures	• Consider the appropriate trading strategy and communicate as needed with the trade desk • Consider trade cost measurements	-CIMA Detailed Content Outline §V. Portfolio Construction and Consulting Process A. Code of Professional Responsibility 1. IWI Code of Professional Responsibility

• Best execution requirements • Mechanics of exchange and over-the-counter (OTC) market trading • Trade cost measurement	• Consider best execution if/when responsible for executing the trade	B. Client Discovery 1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching) 2. Relationship between time horizon and expected return vs. terminal value result of investment management models C. Investment Policy 1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return) 2. Client-specific concepts to cover in an investment policy statement (e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return) 3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets) 4. Governance and ethics-related concepts to cover in an investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements) D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo

		simulations of investment management models 3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation) E. Manager Search, Selection, and Monitoring 1. Components of manager due diligence 2. Active share 3. Manager styles and asset class structures 4. The benefits and caveats of manager structuring including a multi-manager approach F. Portfolio Review and Revisions 1.Rebalancing methodologies and considerations

3. Research and Analysis

3.1 Research		
Knowledge	**Behaviour and Skills**	**CIMA**
• Data collection • Sources of research, including: o Academic journals o Recommended lists o Internal research reports o Third party research reports o Analyst reports o Offering documents and/or prospectus o Annual reports and financial documents o Continuous disclosure o Economic reports o Other data sources • Regulatory requirements for research reports	• Consider various sources of available research and data to evaluate the economy, industry sector, and individual companies, as needed	- CIMA Detailed Content Outline §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) B.-F. Various Investment Vehicles, along with due diligence with regard to each such vehicle (Equity, Fixed Income, Alternatives, Options, Futures, Derivatives, and

		Real Assets)

3.2 Economic and Industry Analysis

Knowledge	Behaviour and Skills	CIMA
• Macroeconomic analysis, including: o Macroeconomic factors that affect investor expectations and the price of securities o Economic principles that have an impact on capital markets and the needs of clients o Capital market expectations in the portfolio management process o Economic growth trend analysis o Major approach to economic forecasting o Business cycles and long and short-term expectations o Inflation and the business cycle o Causes and impacts of inflation, disinflation, and deflation on an economy • Implications of inflation for various investments o Effects of monetary and fiscal policy on business cycles and the economy o Key economic indicators o Cyclical trends o Secular trends o Economic forecasts o Consensus forecasts o Keynesian, monetarist, and supply-side theories o Theories of interest rate determination and how interest rates affect the economy o International trade, balance of payments and their impacts on the economy o Exchange rates and their	• Perform economic and industry analysis to help determine individual security selection in a portfolio • Consider impact of economic indicators, trends, and forecasts on portfolio strategy • Consider economic principles that have an impact on capital markets and the needs of clients • Consider how industries can be classified and the impact on investment approach	-CIMA Detailed Content Outline §I. Fundamentals A. Statistics and Methods 1. Basic statistical measures (e.g., measures of central tendency, dispersion, variability, skewness, kurtosis) 2. Basic statistical concepts (e.g., the normal distribution, probability, sampling from a population, significance testing) 3. Interpretation of potential investment outcomes of statistical results from probabilistic models (e.g., Monte Carlo simulation) 4. Correlation, regression, and multiple regression concepts, methods, and interpretation 5. Time series and trend analysis concepts, methods, and interpretation (e.g., seasonality, mean reversion, multi-period forecasting, smoothing) B. Applied Finance and Economics 1. Methods and concepts pertaining to calculation of time value of money (e.g., nominal and effective interest rates, compounding, discounting, rate of return, present and future value) 2. Major areas of economic thought, including Keynesian economics, Austrian School economics, and monetarism 3. Economic concepts and principles (e.g., supply and demand, equilibrium through graphical representation, micro- and macroeconomic theory) 4. Monetary and fiscal policy (e.g., role of central banks, interest rates [determination of, nominal and real], yield spreads and curve, velocity of money, taxation, government spending) 5. Stages of a business/economic cycle, including expansion, peak, contraction, and trough; price level environments/ concepts, including inflation, deflation, stagnation; business cycle dating; and the effect of monetary and fiscal policy

impacts on the economy o Valuation techniques and models o Economic reports and other relevant sources of information, including the assumptions and valuation approach used • Industry analysis and impact on a company's security valuation, including: o Industry classifications o Global industry classification system o Life cycle stages and their different growth rates and risks o Industry performance during different stages of the economic cycle o Differences in how companies are analysed and valued within the industry • Key industry characteristics o Industry reports and other relevant sources of information, including the assumptions and valuation approach used		on business cycles 6. Macroeconomic measurements, including leading, coincident, and lagging gross domestic product (GDP) indicators and price level indicators 7. Demographic effects on economies 8. Global economics, theory, and trade (e.g., comparative and absolute advantage; balance of payments; roles of the International Monetary Fund, World Bank, and World Trade Organization) 9. Global currency valuation (global exchange-rate system, spot and forward exchange rates, dollarization, currency pegs, fixed and floating rates, reject purchasing power parity, special drawing rights) C. Global Capital Markets and Valuation 1. Interest rates and inflation in developed and emerging markets, including history of government and corporate defaults and the gold standard 2. Equity valuation in developed, emerging, and frontier markets (e.g., cyclical and secular bull and bear markets, extremes of equity valuation over time and within various secular market cycles) 3. Linkages between economic growth and capital market return

3.3 Company and financial analysis

Knowledge	Behaviour and Skills	CIMA
• Regulatory filings • Other sources of information • Factors involved in performing company analysis to determine whether a company represents a good investment • Company reports and other relevant sources of information, including the assumptions and valuation approach used • Takeover process and takeover legislation • Insider bids and issuer bid regulations • The rules for public company disclosure and statutory rights of investors • Qualitative company analysis,	• Perform company and financial statement analysis to help determine individual security selection in a portfolio • Calculate the intrinsic value of a stock and determine if a stock is undervalued or overvalued • Conduct due diligence of mutual funds, hedge funds, real estate, and private equity within the context of the portfolio under review	- CIMA Detailed Content Outline §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and

including: o Management and corporate governance o Competitive advantage o Business model • Financial statement analysis, including: o Income statements o Balance sheets o Cash flow statements o Notes and auditor's report o Intrinsic value o Expected return o Dividend discount model o Discounted cash flow model o Relative valuation models and ratios o Limitations of accounting data and financial statement analysis		liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) B.-F. Various Investment Vehicles, along with due diligence with regard to each such vehicle (Equity, Fixed Income, Alternatives, Options, Futures, Derivatives, and Real Assets)

3.4 Technical and statistical analysis

Knowledge	Behaviour and Skills	CIMA
• Market theories explaining stock market behavior • Chart analysis • Evidence on the (lack of) efficacy of chart analysis • Types of price charts, including: o Bar charts o Line charts o Candlestick charts • Types of chart patterns, including: o Trendlines o Support and resistance levels o Reversal formations o Continuation patterns • Statistical analysis • Multi-factor regression analysis • Trend-following indicators such as moving averages • Momentum indicators, including: o Momentum oscillator o Moving average convergence-divergence (MACD) o Stochastic o Relative strength index (RSI) • Sentiment indicators, including		-CIMA Detailed Content Outline §I. Fundamentals A. Statistics and Methods 1. Basic statistical measures (e.g., measures of central tendency, dispersion, variability, skewness, kurtosis) 2. Basic statistical concepts (e.g., the normal distribution, probability, sampling from a population, significance testing) 3. Interpretation of potential investment outcomes of statistical results from probabilistic models (e.g., Monte Carlo simulation) 4. Correlation, regression, and multiple regression concepts, methods, and interpretation 5. Time series and trend analysis concepts, methods, and interpretation (e.g., seasonality, mean reversion, multi-period forecasting, smoothing) III. Portfolio Theory and Behavioral Finance A. Portfolio Theories and Models 1. Modern portfolio theory (MPT) assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio

o Investor expectations o Contrarian indicators o Bullish and bearish consensus indicators o Public short ratio o Intermarket analysis		allocation 2. Efficient market hypothesis: weak, semi-strong, and strong 3. Capital asset pricing model (CAPM), including systematic (market risk), non-systematic (idiosyncratic risk) and security market line (SML) 4. Arbitrage pricing theory (APT) explanatory models regions 5. Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies B. Behavioral Finance theory 1. Cognitive biases and mental heuristics related to existing beliefs and information processing concepts 2. Biases and mental heuristics (e.g., loss aversion, overconfidence, self-control, status quo, endowment, regret aversion, affinity) 3. Portfolio construction based on behavioral bias 4. Portfolio construction based on behavioral bias 5. Methods of overcoming cognitive and emotional bias C. Investment Philosophies and Styles 1. Factor-based indexing (e.g., smart beta, fundamental indexing), including factors (Fama and French, etc.) 2. Benefits/risks of multi- and single- factor portfolios 3. Factor-based investing in active management and risk management 4. Responsible investing (e.g., socially responsible investing [SRI]; environmental, social, and governance [ESG]; sustainable; impact) benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy) 5. Tax-aware investment strategies (e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location) 6. Investment styles (e.g., active, passive) and the conventional rationale for each D. Tools and Strategies 1. Market trends (time cycles), continuation, and corrections 2. Technical analysis (e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators)

		3. Tactical and dynamic asset allocation strategies

3.5 Financial technology (fintech)		
Knowledge	**Behaviour and Skills**	**CIMA**
• Use of fintech in investment management • Big data projects • Artificial intelligence tools • Machine learning	• Stay up to date with the use of fintech in investment management processes, as appropriate or needed	

4. Portfolio Construction and Strategies

4.I Portfolio Construction		
Knowledge	**Behaviour and Skills**	**CIMA**
• Principles of portfolio construction • Product due diligence process • Various investment products in a portfolio • Correlation, beta, and alpha • Multi-factor asset pricing models • Risk and return relationships of investment products • Overall risk budget for the portfolio and subdivision over the sources of investment return • Diversification and concentration • Asset classes • Capital market expectations • Backtesting and simulation analysis • Sensitivity analysis • Portfolio management styles • Ongoing consideration of account appropriateness • Overall costs, including embedded fees • Factors affecting rebalancing policy	• Consider the investment products available, their correlation, and risk and return relationship, when constructing a portfolio suitable for the client based on their IPS • Ensure investment strategies are appropriate • Consider impact of concentration and diversification and evaluate it within context of the IPS • Consider the use of backtesting and simulation analysis and the use of sensitivity analysis to see how an investment strategy may perform • Consider overall costs when constructing portfolios • Evaluate the ongoing appropriateness of the portfolio construction for a client and rebalance as needed • Consider the limitations of the APM role before making changes to the portfolio	-CIMA Detailed Content Outline §I. Fundamentals A. Statistics and Methods 1. Basic statistical measures (e.g., measures of central tendency, dispersion, variability, skewness, kurtosis) 2. Basic statistical concepts (e.g., the normal distribution, probability, sampling from a population, significance testing) 3. Interpretation of potential investment outcomes of statistical results from probabilistic models (e.g., Monte Carlo simulation) 4. Correlation, regression, and multiple regression concepts, methods, and interpretation 5. Time series and trend analysis concepts, methods, and interpretation (e.g., seasonality, mean reversion, multi-period forecasting, smoothing) §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and

		liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) B.-F. Various Investment Vehicles, along with due diligence with regard to each such vehicle (Equity, Fixed Income, Alternatives, Options, Futures, Derivatives, and Real Assets) III. Portfolio Theory and Behavioral Finance A. Portfolio Theories and Models 1. Modern portfolio theory (MPT) assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio allocation 2. Efficient market hypothesis: weak, semi-strong, and strong 3. Capital asset pricing model (CAPM), including systematic (market risk), non-systematic (idiosyncratic risk) and security market line (SML) 4. Arbitrage pricing theory (APT) explanatory models regions 5. Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies B. Behavioral Finance theory 1. Cognitive biases and mental heuristics related to existing beliefs and information processing concepts 2. Biases and mental heuristics (e.g., loss aversion, overconfidence, self-control, status quo, endowment, regret aversion, affinity) 3. Portfolio construction based on behavioral bias 4. Portfolio construction based on behavioral bias 5. Methods of overcoming cognitive and emotional bias C. Investment Philosophies and Styles 1. Factor-based indexing (e.g., smart beta, fundamental indexing), including factors (Fama and French, etc.) 2. Benefits/risks of multi- and single- factor portfolios 3. Factor-based investing in active management and risk management 4. Responsible investing (e.g., socially responsible investing [SRI]; environmental, social, and governance [ESG]; sustainable; impact) benefits/risks of strategies; history, trends, and the

		challenges investors face when implementing such a strategy) 5. Tax-aware investment strategies (e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location) 6. Investment styles (e.g., active, passive) and the conventional rationale for each D. Tools and Strategies 1. Market trends (time cycles), continuation, and corrections 2. Technical analysis (e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators) 3. Tactical and dynamic asset allocation strategies IV. Risk and Return A. Risk 1. Tools and techniques to leverage investments in a portfolio, including margin 2. Concepts of risk and uncertainty 3. Types of risk (e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit, reinvestment, shortfall, sequencing) B. Risk Measurements 1. Knowledge of statistical concepts and metrics related to risk (e.g., standard deviation, tail risk, downside risk, beta) 2. Differences between volatility and downside risk C. Performance Measurement and Attribution 1. Investment return calculation (e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-weighted and dollar-weighted rates of return, arithmetic and geometric average returns) 2. Strengths and weaknesses of different types of risk-adjustment analysis (e.g., alpha, R-squared coefficient) 3. Benchmarking methods (e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization) 4. Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk

		5. Universe biases (e.g., survivorship, reporting bias) V. Portfolio Construction and Consulting Process D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models 3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation) F. Portfolio Review and Revisions 1. Rebalancing methodologies and considerations

4.2 Behavioural Finance

Knowledge	Behaviour and Skills	CIMA
• Principles of behavioural finance • Efficient market hypotheses: o Weak form o Semi-strong form o Strong form • Irregularities in the overall market, including: o Fundamental o Technical o Calendar o Behavioral and risk-based explanations for anomalies o Limits of arbitrage • Behavioural biases of individual investors, including: o Investor biases o Cognitive biases o Emotional biases o Implications for financial decision making • Investor personality types and dimensions, including: o Uses o Limitations o Limits of arbitrage • Behavioural biases of individual investors, including: o Investor biases o Cognitive biases o Emotional biases	• Consider behavioural finance and how it may cause irregularities to a market's efficiency • Identify behavioural biases in clients and how it can affect their decision making • Apply bias diagnoses when structuring asset allocation	-CIMA Detailed Content Outline §III. Portfolio Theory and Behavioral Finance A. Portfolio Theories and Models 1. Modern portfolio theory (MPT) assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio allocation 2. Efficient market hypothesis: weak, semi-strong, and strong 3. Capital asset pricing model (CAPM), including systematic (market risk), non-systematic (idiosyncratic risk) and security market line (SML) 4. Arbitrage pricing theory (APT) explanatory models regions 5. Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies B. Behavioral Finance theory 1. Cognitive biases and mental heuristics related to

o Implications for financial decision making • Investor personality types and dimensions, including: o Uses o Limitations		existing beliefs and information processing concepts 2. Biases and mental heuristics (e.g., loss aversion, overconfidence, self-control, status quo, endowment, regret aversion, affinity) 3. Portfolio construction based on behavioral bias 4. Portfolio construction based on behavioral bias 5. Methods of overcoming cognitive and emotional bias C. Investment Philosophies and Styles 1. Factor-based indexing (e.g., smart beta, fundamental indexing), including factors (Fama and French, etc.) 2. Benefits/risks of multi- and single- factor portfolios 3. Factor-based investing in active management and risk management 4. Responsible investing (e.g., socially responsible investing [SRI]; environmental, social, and governance [ESG]; sustainable; impact) benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy) 5. Tax-aware investment strategies (e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location) 6. Investment styles (e.g., active, passive) and the conventional rationale for each D. Tools and Strategies 1. Market trends (time cycles), continuation, and corrections 2. Technical analysis (e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators) 3. Tactical and dynamic asset allocation strategies

4.3 Equity investments within portfolios

Knowledge	Behaviour and Skills	CIMA
• Bottom-up approaches: o Value-oriented approach	• Evaluate various strategies to create a portfolio with the goal	-CIMA Detailed Content Outline

o Growth-oriented approach • Top-down approaches: o Macro or micro-economic analysis of trends and market forecasts • Portfolio management strategies: o Passive ▪ Evidence supporting passive ▪ Replicating an index ▪ Tracking an index ▪ Fundamental indexing ▪ Risk budgeting and enhanced indexing o Systematic factors ▪ Multi-factor funds ▪ Size, value, profitability, investment, momentum o Active ▪ Evidence on the failure, on average, of managers to beat passive indexes ▪ Sector rotation ▪ Timing ▪ Growth investing ▪ Value/income investing ▪ Small-capitalization size investing • Active portfolio construction: o Long only portfolios o Enhanced active equity investing o Market neutral long-short investing o Portable alpha strategy • Equity valuation • Use of derivatives in managing equity portfolios o Hedging with equity index derivatives o Changing a portfolio's asset mix ▪ Stock index futures ▪ Equity swaps • Tax considerations • Concentration • Diversification • New issues	of maximizing overall investment return, controlling risk, and matching the investment strategy to the investment objectives, constraints, and risk profile for the client. • Consider impact of concentration and diversification and evaluate it within context of the IPS • Consider overall costs when constructing portfolios • Consider the costs with new issues including whether there is "double dipping" •	§II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) B. Equity 1. Equity characteristics by size (capitalization), style (growth or value), volatility (defensive vs. cyclical), capital structure (preferred stock), domestic vs. international, developed vs. emerging vs. frontier, Global/American Depositary Receipts (GDRs/ ADRs) vs. ordinary shares 2. Equity valuation methods (i.e., security analysis, economic analysis, fundamental analysis) 3. Global indices of equity (e.g., price-weighted, cap-weighted, fundamentally weighted, equal-weighted) 4. Potential benefits and risks of international equity diversification in a portfolio 5. Changes in correlations of investment returns over time across sectors, countries, and regions 6. Equity market valuation methods (i.e., price-earnings ratio [P/E ratio], growth rate, book-to-market ratio, Q ratio) 7. Individual equity security analysis (e.g.,

		fundamental analysis, valuation techniques, screening techniques) E. Options, Futures, and Other Derivatives 1. Characteristics and concepts regarding options (e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants) 2. Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio 3. Differences between hedging and speculating

4.4 Debt investments within portfolio

Knowledge	Behaviour and Skills	CIMA
• Active strategies, including: o Interest rate strategies o Yield curve strategies o Intermarket spread strategies o Intramarket spread strategies • Passive strategies, including: o Buy and hold Variable credit and term exposure/fixed income factor investing o Barbell portfolio o Indexation o Laddered portfolio • Dedicated strategies, including: o Cash-flow matching o Immunization o Contingent immunization • Evaluating different management techniques • Valuation and pricing • Bond financing and repo transactions	• Evaluate various strategies to create a portfolio with the goal of maximizing overall investment return, controlling risk, and matching the investment strategy to the investment objectives, constraints, and risk profile for the client • Evaluate and use the appropriate debt strategy to create a portfolio • Calculate the price and yield of debt securities • Analyze debt securities based on price volatility Calculate changes in bond prices due to duration or convexity • Evaluate the investment	-CIMA Detailed Content Outline §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) C. Fixed Income 1. Types of fixed income securities (e.g., government, municipal, corporate, money-market instruments, convertibles, high-yield) 2. Characteristics of fixed income investments including basic features

• Risk factors, including: o Default risk o Interest rate risk o Reinvestment rate risk • Bond duration, including: o Properties of duration o Calculate Macaulay duration o Calculate modified duration o Calculate a portfolio's modified duration o Matching duration o Assumptions • Bond's convexity • Structured notes • Marketplaces for different types of fixed income investments	quality, term structure and pricing of debt securities • Determine bond price volatility using duration and convexity • Evaluate and consider a company's capital structure • Consider marketplaces when purchasing and selling different types of fixed income investments	(priority of claims with capital structure), coupon structures, payment methods, and options based on several parameters (i.e., quality; maturity, duration, and convexity; issue size; fixed or floating rate coupons; call features; yield to maturity [YTM] and yield to worst [YTW]) 3. Pricing of fixed income securities (e.g., relative rates, discounts and premiums, inflation-adjusted valuation, duration) 4. Common fixed income indices and benchmarks 5. Potential benefits and risks in international fixed income diversification 6. Individual fixed income security analysis (e.g., fundamental analysis, valuation techniques, screening techniques) E. Options, Futures, and Other Derivatives 1. Characteristics and concepts regarding options (e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants) 2. Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio 3. Differences between hedging and speculating

4.5 Other bond portfolio construction techniques

Knowledge	Behaviour and Skills	CIMA
• Securitization • Asset-backed securities • Mortgage-backed securities • Collateralized debt obligations • Foreign denominated bonds • Real return bonds • Using derivatives in fixed income management o Forward rate agreements o Interest rate futures o Interest rate swaps o Credit derivatives • High-yield bonds, including: o Credit rating agencies and	• Evaluate other fixed income investments and strategies and consider their suitability when constructing a portfolio	-CIMA Detailed Content Outline §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets

methodology o Default risk and default rates o Recovery rates o Credit spread o Unique coupon structures • Fixed income exchange traded funds (ETFs)		4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) C. Fixed Income 1. Types of fixed income securities (e.g., government, municipal, corporate, money-market instruments, convertibles, high-yield) 2. Characteristics of fixed income investments including basic features (priority of claims with capital structure), coupon structures, payment methods, and options based on several parameters (i.e., quality; maturity, duration, and convexity; issue size; fixed or floating rate coupons; call features; yield to maturity [YTM] and yield to worst [YTW]) 3. Pricing of fixed income securities (e.g., relative rates, discounts and premiums, inflation-adjusted valuation, duration) 4. Common fixed income indices and benchmarks 5. Potential benefits and risks in international fixed income diversification 6. Individual fixed income security analysis (e.g., fundamental analysis, valuation techniques, screening techniques) E. Options, Futures, and Other Derivatives 1. Characteristics and concepts regarding options (e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants) 2. Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio 3. Differences between hedging and speculating

4.6 Derivatives within portfolios

Knowledge	**Behaviour and Skills**	**CIMA**
• Various derivative strategies and how they can be used in a client portfolio • Applications of derivative	• Consider correlation between the underlying interest, such as stocks,	-CIMA Detailed Content Outline §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products

investments including: o Hedging o Directional bets o Creating desired payoffs o Replicating an asset's return • Use of options strategies, including: o Covered calls o Protective puts o Spread strategies • Derivatives strategy selection o Options pricing models, including: o Intrinsic vs. time value o Black-Scholes-Merton o Binomial • Variable sensitivity metrics, including: o Delta o Gamma o Theta o Vega o Rho • Swaps, forwards, and futures strategies, including: o Currency o Interest rate o Equity	commodities, currencies, bonds, indices, and the derivative itself • Consider and evaluate the use of derivatives in a client portfolio, including using pricing models and variable sensitivity metrics	[ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) E. Options, Futures, and Other Derivatives 1. Characteristics and concepts regarding options (e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants) 2. Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio 3. Differences between hedging and speculating

4.7 Alternative investments within portfolios		
Knowledge	**Behaviour and Skills**	**CIMA**
• Types of alternative investments including: • Hedge funds and hedge fund strategies • Relative value • Event driven • Directional • Fund of hedge funds o Commodities o Real estate funds	• Evaluate alternative investments and consider their suitability when constructing a portfolio • Consider the use of alternative investments, including their valuation and correlation, within a portfolio	-CIMA Detailed Content Outline §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of

o Private equity o Liquid alternative funds o Insurance based investment products • Role of alternative investments in portfolios, including: o Ways to invest o Features and risks o Due diligence in selection of alternative investments o Advantages and challenges o Fees and costs and their impact on returns • Trends and developments, including: o Increased government regulation o Evidence of poor performance after costs o Institutionalization o Continued innovation o Cryptocurrency		exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) D. Alternative Investments 1. Distinction between alternative investment strategy (e.g., long-short, merger arbitrage) and structure (e.g., limited partner [LP], mutual fund, exchange-traded products [ETP]) 2. Differences between liquid and illiquid strategies 3. Differences in alternative investments (e.g., real estate, commodities, private equity, venture capital, private debt, infrastructure), characteristics, risks, tax ramifications, and expected returns 4. Alternative investment structural considerations (e.g., transparency, liquidity, leverage, compensation/fee structures; significance of third-party custodianship and independent auditing; funds of funds; heightened due diligence; hedge fund vs. marketable vs. redeemable security structures) 5. Use of alternative investment strategies in asset allocation design 6. Concepts in evaluating alternative investment strategies (e.g., absolute return, arbitrage, long/short, managed futures, dedicated short bias, market neutral, event-driven, reinsurance, global macro) 7. Alternative investment indices and benchmarks 8. Share classes and their implications for various investment vehicles E. Options, Futures, and Other Derivatives 1. Characteristics and concepts regarding options (e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants)

		2. Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio 3. Differences between hedging and speculating F. Real Assets 1. How specialty assets perform differently from traditional assets 2. Types of investment market access (e.g., direct and indirect ownership, listed and unlisted) 3. Real asset market valuation methods, cycles, and dynamics 4. How real estate, infrastructure, commodities, and other real assets fit into client overall asset allocation (including different sectors, benchmarking, and investment strategies)

4.8 Managed products within portfolios

Knowledge	Behaviour and Skills	CIMA
• Use of managed products, including: o Client's needs o Size of the client account o Transaction costs and management fees o Liquidity • Mutual funds, including: o Trust structure o Corporate class structure o Types of funds o Management o Philosophy and investing style o Process o Performance o Fees o Trading expenses • Closed-end funds and their use in client	• Conduct due diligence on managed products and evaluate whether they are suitable for a particular client portfolio • Consider and evaluate the pros and cons of the various techniques for obtaining overlay management, including fees and costs to the client • Consider and evaluate the best class of funds suitable for a client account	-CIMA Detailed Content Outline §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities)

portfolios • The use of ETFs and platform traded funds (PTFs), including: o Key features o Advantages and disadvantages • Wrap products, including: o Wrap funds o Wrap accounts o Fund of funds • Overlay management o Pros and cons o Separately managed accounts (SMA) o Unified managed accounts (UMA) o Unified managed household accounts (UMHA)		

4.9 International investing

Knowledge	Behaviour and Skills	CIMA
• Major international equity benchmarks • Advantages and disadvantages of international investing • Ways to invest internationally, including o Private placement o Publicly traded shares of individual foreign companies o American depository share (ADS) o Mutual funds o ETFs • Other considerations, including: o Additional costs and expenses o Implications of home country bias and Canadian market relative size o Foreign trading and settlement conventions o Foreign withholding taxes and implications based on account types and investment o Foreign currency exchange costs o Impact of conversion spreads o Foreign currency hedging costs	• Conduct due diligence and consider international investments into an asset allocation plan as suitable for the client	-CIMA Detailed Content Outline §II. Investments A. Investment Vehicles 1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities) 2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics 3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets 4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities) B. Equity 1. Equity characteristics by size (capitalization), style (growth or value), volatility (defensive vs. cyclical), capital structure (preferred stock), domestic vs. international, developed vs. emerging vs. frontier,

o Different volatility levels of international markets o Foreign regulatory restrictions • International tax conflicts and double taxation • Recoverable vs. unrecoverable foreign withholding tax costs in different account types (taxable, RRSP, TFSA, etc.) • Sources of international tax law and how they interrelate • Tax treaties • Jurisdictional tax requirements as they relate to residency • Source country taxation • Tax relief exemptions under domestic tax law		Global/American Depositary Receipts (GDRs/ ADRs) vs. ordinary shares 4. Potential benefits and risks of international equity diversification in a portfolio 5. Changes in correlations of investment returns over time across sectors, countries, and regions C. Fixed Income 5. Potential benefits and risks in international fixed income diversification E. Options, Futures, and Other Derivatives 1. Characteristics and concepts regarding options (e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants)

5. Portfolio Monitoring, Evaluation and Client Reporting

5.1 Portfolio monitoring		
Knowledge	**Behaviour and Skills**	**CIMA**
• Effective portfolio monitoring system, including: o Continuous monitoring for compliance with client's objectives and other financial circumstances o The importance of communication with clients about changes that have affected their portfolio	• Establish and implement an effective system to monitor client portfolios • Review for consistency with IPS, KYC and other relevant information • Consider the changes in economic environment • Communicate with clients as appropriate, utilizing the firm's contact management system • Consider the limitations of the APM role before making changes to the portfolio	-CIMA Detailed Content Outline §V. Portfolio Construction and Consulting Process A. Code of Professional Responsibility 1. IWI Code of Professional Responsibility B. Client Discovery 1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching) 2. Relationship between time horizon and expected return vs. terminal value result of investment management models C. Investment Policy 1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return) 2. Client-specific concepts to cover in an investment policy

		statement (e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return) 3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets) 4. Governance and ethics-related concepts to cover in an investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements) D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models 3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation) E. Manager Search, Selection, and Monitoring 1. Components of manager due diligence 2. Active share 3. Manager styles and asset class structures 4. The benefits and caveats of manager structuring including a multi-manager approach F. Portfolio Review and Revisions 1. Rebalancing methodologies and considerations
5.2 Evaluation of Investment Risks		
Knowledge	**Behaviour and Skills**	**CIMA**

• Capital asset pricing model • Arbitrage pricing theory/multi-factor asset pricing models • Systematic risk or market risk • Other priced risks (company size, relative price, etc.) • Unsystematic risk or non-market risk • Common risks faced by clients, including o Inflation or purchasing power o Credit risk o Liquidity risk o Currency risk • Measures of historic risk • Measures of expected risk • Measures of investment risk, including: o Standard deviation of returns o Beta, including multi-factor analysis of different forms of beta o Semi-deviation • Considerations to reduce a portfolio's investment risk, including: o Diversification strategy o Correlation coefficient o Efficient frontier o Options strategies o Use of futures contracts	• Evaluate a portfolio's investment risk using various measures • Assess and implement the appropriate strategies to reduce a portfolio's investment risk • Determine portfolio's exposure to known risk factors • Rebalance the portfolio's investment risk, as needed • For an APM, seek pre-approval from the PM as required prior to making any changes to the portfolio	-CIMA Detailed Content Outline §I. Fundamentals A. Statistics and Methods 1. Basic statistical measures (e.g., measures of central tendency, dispersion, variability, skewness, kurtosis) 2. Basic statistical concepts (e.g., the normal distribution, probability, sampling from a population, significance testing) 3. Interpretation of potential investment outcomes of statistical results from probabilistic models (e.g., Monte Carlo simulation) 4. Correlation, regression, and multiple regression concepts, methods, and interpretation 5. Time series and trend analysis concepts, methods, and interpretation (e.g., seasonality, mean reversion, multi-period forecasting, smoothing) III. Portfolio Theory and Behavioral Finance A. Portfolio Theories and Models 1. Modern portfolio theory (MPT) assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio allocation 2. Efficient market hypothesis: weak, semi-strong, and strong 3. Capital asset pricing model (CAPM), including systematic (market risk), non-systematic (idiosyncratic risk) and security market line (SML) 4. Arbitrage pricing theory (APT) explanatory models regions 5. Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies B. Behavioral Finance theory 1. Cognitive biases and mental heuristics related to existing beliefs and information processing concepts 2. Biases and mental heuristics (e.g., loss aversion, overconfidence, self-control, status

		quo, endowment, regret aversion, affinity) 3. Portfolio construction based on behavioral bias 4. Portfolio construction based on behavioral bias 5. Methods of overcoming cognitive and emotional bias C. Investment Philosophies and Styles 1. Factor-based indexing (e.g., smart beta, fundamental indexing), including factors (Fama and French, etc.) 2. Benefits/risks of multi- and single- factor portfolios 3. Factor-based investing in active management and risk management 4. Responsible investing (e.g., socially responsible investing [SRI]; environmental, social, and governance [ESG]; sustainable; impact) benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy) 5. Tax-aware investment strategies (e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location) 6. Investment styles (e.g., active, passive) and the conventional rationale for each D. Tools and Strategies 1. Market trends (time cycles), continuation, and corrections 2. Technical analysis (e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators) 3. Tactical and dynamic asset allocation strategies IV. Risk and Return A. Risk 1. Tools and techniques to leverage investments in a portfolio, including margin 2. Concepts of risk and uncertainty 3. Types of risk (e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit,

		reinvestment, shortfall, sequencing) B. Risk Measurements 1. Knowledge of statistical concepts and metrics related to risk (e.g., standard deviation, tail risk, downside risk, beta) 2. Differences between volatility and downside risk C. Performance Measurement and Attribution 1. Investment return calculation (e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-weighted and dollar-weighted rates of return, arithmetic and geometric average returns) 2. Strengths and weaknesses of different types of risk-adjustment analysis (e.g., alpha, R-squared coefficient) 3. Benchmarking methods (e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization) 4. Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk 5. Universe biases (e.g., survivorship, reporting bias)

5.3 Portfolio performance evaluation

Knowledge	Behaviour and Skills	CIMA
• Calculation of a portfolio's return using: o Dollar-weighted return o Time-weighted return o Pre-tax versus post-tax return o Pre-fee versus post-fee return • Performance appraisal and benchmark comparisons, including: o Characteristics of an appropriate benchmark o Classes of benchmarks o Advantages and disadvantages • Multi-factor benchmarking • Matching multi-factor benchmark to manager based on style • Use of comparison or performance universes	• Apply performance presentation guidelines and standards when presenting information and portfolio management reports to clients • Identify and reconcile any discrepancies in the portfolio management reports generated, and escalate as needed	-CIMA Detailed Content Outline §I. Fundamentals A. Statistics and Methods 1. Basic statistical measures (e.g., measures of central tendency, dispersion, variability, skewness, kurtosis) 2. Basic statistical concepts (e.g., the normal distribution, probability, sampling from a population, significance testing) 3. Interpretation of potential investment outcomes of statistical results from probabilistic models (e.g., Monte Carlo simulation) 4. Correlation, regression, and multiple regression concepts, methods, and interpretation 5. Time series and trend analysis concepts, methods, and

• Problems associated with comparison universes, including: o Poorly defined comparison universes o Survivorship bias • Evaluation of a portfolio's performance using: o Performance attribution analysis, including: ▪ Sector attribution factors ▪ Performance attribution styles • Risk-adjusted return measures o Jensen's alpha o Treynor ratio o Sharpe ratio o Multi-factor alpha		interpretation (e.g., seasonality, mean reversion, multi-period forecasting, smoothing) III. Portfolio Theory and Behavioral Finance A. Portfolio Theories and Models 1. Modern portfolio theory (MPT) assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio allocation 2. Efficient market hypothesis: weak, semi-strong, and strong 3. Capital asset pricing model (CAPM), including systematic (market risk), non-systematic (idiosyncratic risk) and security market line (SML) 4. Arbitrage pricing theory (APT) explanatory models regions 5. Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies B. Behavioral Finance theory 1. Cognitive biases and mental heuristics related to existing beliefs and information processing concepts 2. Biases and mental heuristics (e.g., loss aversion, overconfidence, self-control, status quo, endowment, regret aversion, affinity) 3. Portfolio construction based on behavioral bias 4. Portfolio construction based on behavioral bias 5. Methods of overcoming cognitive and emotional bias C. Investment Philosophies and Styles 1. Factor-based indexing (e.g., smart beta, fundamental indexing), including factors (Fama and French, etc.) 2. Benefits/risks of multi- and single- factor portfolios 3. Factor-based investing in active management and risk management 4. Responsible investing (e.g., socially responsible investing [SRI]; environmental, social, and

		governance [ESG]; sustainable; impact) benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy) 5. Tax-aware investment strategies (e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location) 6. Investment styles (e.g., active, passive) and the conventional rationale for each D. Tools and Strategies 1. Market trends (time cycles), continuation, and corrections 2. Technical analysis (e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators) 3. Tactical and dynamic asset allocation strategies IV. Risk and Return A. Risk 1. Tools and techniques to leverage investments in a portfolio, including margin 2. Concepts of risk and uncertainty 3. Types of risk (e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit, reinvestment, shortfall, sequencing) B. Risk Measurements 1. Knowledge of statistical concepts and metrics related to risk (e.g., standard deviation, tail risk, downside risk, beta) 2. Differences between volatility and downside risk C. Performance Measurement and Attribution 1. Investment return calculation (e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-weighted and dollar-weighted rates of return, arithmetic and geometric average returns) 2. Strengths and weaknesses of different types of risk-adjustment analysis (e.g., alpha, R-squared coefficient)

		3. Benchmarking methods (e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization) 4. Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk 5. Universe biases (e.g., survivorship, reporting bias) V. Portfolio Construction and Consulting Process A. Code of Professional Responsibility 1. IWI Code of Professional Responsibility B. Client Discovery 1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching) 2. Relationship between time horizon and expected return vs. terminal value result of investment management models C. Investment Policy 1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return) 2. Client-specific concepts to cover in an investment policy statement (e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return) 3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets) 4. Governance and ethics-related concepts to cover in an

		investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements) D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models 3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation) E. Manager Search, Selection, and Monitoring 1. Components of manager due diligence 2. Active share 3. Manager styles and asset class structures 4. The benefits and caveats of manager structuring including a multi-manager approach F. Portfolio Review and Revisions 1. Rebalancing methodologies and considerations
5.4 Client portfolio presentation		
Knowledge	**Behaviour and Skills**	**CIMA**
• Standardized performance presentation guidelines • Global Investment Performance Standards (GIPS) o Key aspects, including information about: • Firm and responsibilities of the firm • Composite requirements • Data used to determine performance calculations • Calculation methodologies • Presentation and	• Apply performance presentation guidelines and standards when presenting information and portfolio management reports to clients • Identify and reconcile any discrepancies in the portfolio management reports generated, and escalate as needed	-CIMA Detailed Content Outline § IV. Risk and Return A. Risk 1. Tools and techniques to leverage investments in a portfolio, including margin 2. Concepts of risk and uncertainty 3. Types of risk (e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit, reinvestment, shortfall, sequencing) B. Risk Measurements 1. Knowledge of statistical concepts and metrics related to risk (e.g., standard deviation, tail risk, downside risk, beta) 2. Differences between

reporting guidelines • Portfolio management reports: o Information included o Frequency o Tax implications • Discrepancies between portfolio manager reports and periodic regulatory client statements		volatility and downside risk C. Performance Measurement and Attribution 1. Investment return calculation (e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-weighted and dollar-weighted rates of return, arithmetic and geometric average returns) 2. Strengths and weaknesses of different types of risk-adjustment analysis (e.g., alpha, R-squared coefficient) 3. Benchmarking methods (e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization) 4. Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk 5. Universe biases (e.g., survivorship, reporting bias) V. Portfolio Construction and Consulting Process A. Code of Professional Responsibility 1. IWI Code of Professional Responsibility B. Client Discovery 1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching) 2. Relationship between time horizon and expected return vs. terminal value result of investment management models C. Investment Policy 1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return) 2. Client-specific concepts to cover in an investment policy statement (e.g., goals and objectives, risk tolerance, time

		horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return) 3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets) 4. Governance and ethics-related concepts to cover in an investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements) D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models 3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation) E. Manager Search, Selection, and Monitoring 1. Components of manager due diligence 2. Active share 3. Manager styles and asset class structures 4. The benefits and caveats of manager structuring including a multi-manager approach F. Portfolio Review and Revisions 1. Rebalancing methodologies and considerations

6. Servicing Institutions

6.1 Institutional portfolio management		
Knowledge	**Behaviour and Skills**	**CIMA**
• Service	• Identify the difference	-CIMA Detailed Content Outline §V. Portfolio Construction and

channels/Investment product structures, including pooled investment vehicles o Institutional Investor and client types, including o Pension plans o Mutual funds o Insurance companies o Endowments o Charitable foundations o Family trusts/estates o Corporate treasuries • KYC and suitability rules in dealing with institutional clients • Fiduciary duty and institutional investment funds, including: o The named fiduciary in the trust indenture or fund's documents o Fund's board of trustees o Fund's administrative committee o Carrying out duties prudently • Fiduciary duty and corporate pension plans, including: o Who is and can be a fiduciary o Business decision vs fiduciary action	between servicing retail clients compared to institutional clients • Adhere to investment mandates and regulatory requirements when dealing with various types of institutional clients • Consider the use of different asset classes including alternative investments, their valuation and correlation within a portfolio • Consider special fiduciary duty owed to investment funds and other institutional clients	Consulting Process A. Code of Professional Responsibility 1. IWI Code of Professional Responsibility B. Client Discovery 1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching) 2. Relationship between time horizon and expected return vs. terminal value result of investment management models C. Investment Policy 1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return) 2. Client-specific concepts to cover in an investment policy statement (e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return) 3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets) 4. Governance and ethics-related concepts to cover in an investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements) D. Portfolio Construction 1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies 2. Uses/advantages/ disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models 3. Scenario and stress testing methodologies (e.g.,

		historical simulation and prospective simulation) E. Manager Search, Selection, and Monitoring 1. Components of manager due diligence 2. Active share 3. Manager styles and asset class structures 4. The benefits and caveats of manager structuring including a multi-manager approach F. Portfolio Review and Revisions 1. Rebalancing methodologies and considerations

6.2 Management of funds

Knowledge	Behaviour and Skills	CIMA
• Regulatory requirements applicable to each type of fund including mutual funds, pooled funds, ETFs, and other similar funds • Fund compliance and risk control process and procedures • Creation and implementation of investment mandate • Investment monitoring procedures	• Assist or manage a Canadian Mutual Fund or pooled fund in compliance with regulatory requirements and the investment mandate • Assist with the implementation and maintenance of risk controls and monitoring procedures • Prepare investment and fund compliance reports to satisfy institutional investor needs and requirements • Consider how the fund may be reviewed by potential investors and other firms for their product due diligence process • Consider the difference in the regulatory requirements applicable to each type of fund	The CIMA program includes individuals who manages funds, but the skills taught in the program are more universal.

6.3 New investment products

Knowledge	Behaviour and Skills	CIMA
• New investment product development process, including:	• Consider the key factors in creating new investment products,	The CIMA program includes individuals who create new products, but the skills taught

o Key steps o New product development committee o Project management committee o Benchmark selection o Common design factors for investment guidelines and restrictions, including: ▪ Investment objectives ▪ Passive versus active management ▪ Portfolio management style ▪ Sector restrictions o Unique factors in equity mandate design, including: ▪ Capitalization ▪ Sector or industry specific funds ▪ Dividend yielding securities ▪ Cash and short-term investments ▪ Covered call writing o Short sales o Unique factors in fixed income mandate design, including: ▪ Sector-specific mandates ▪ Credit quality ▪ Term to maturity o Unique factors in balanced fund mandates, including: ▪ Target asset mix policy • Development of model portfolios o Strategic versus tactical asset mix strategy	funds, or model portfolios • Consider investment guidelines and restrictions of investment products	in the program are more universal.