LEARNING OUTCOMES

Overview of Asset Allocation

The candidate should be able to:

- describe elements of effective investment governance and investment governance considerations in asset allocation
- formulate an economic balance sheet for a client and interpret its implications for asset allocation
- compare the investment objectives of asset-only, liability-relative, and goals-based asset allocation approaches
- contrast concepts of risk relevant to asset-only, liability-relative, and goals-based asset allocation approaches
- explain how asset classes are used to represent exposures to systematic risk and discuss criteria for asset class specification
- explain the use of risk factors in asset allocation and their relation to traditional asset class–based approaches
- recommend and justify an asset allocation based on an investor’s objectives and constraints
- describe the use of the global market portfolio as a baseline portfolio in asset allocation
- discuss strategic implementation choices in asset allocation, including passive/active choices and vehicles for implementing passive and active mandates
- discuss strategic considerations in rebalancing asset allocations
Principles of Asset Allocation

The candidate should be able to:

- describe and evaluate the use of mean–variance optimization in asset allocation
- recommend and justify an asset allocation using mean–variance optimization
- interpret and evaluate an asset allocation in relation to an investor’s economic balance sheet
- recommend and justify an asset allocation based on the global market portfolio
- discuss the use of Monte Carlo simulation and scenario analysis to evaluate the robustness of an asset allocation
- discuss asset class liquidity considerations in asset allocation
- explain absolute and relative risk budgets and their use in determining and implementing an asset allocation
- describe how client needs and preferences regarding investment risks can be incorporated into asset allocation
- describe the use of investment factors in constructing and analyzing an asset allocation
- describe and evaluate characteristics of liabilities that are relevant to asset allocation
- discuss approaches to liability-relative asset allocation
- recommend and justify a liability-relative asset allocation
- recommend and justify an asset allocation using a goals-based approach
- describe and evaluate heuristic and other approaches to asset allocation
- discuss factors affecting rebalancing policy

Asset Allocation with Real-World Constraints

The candidate should be able to:

- discuss asset size, liquidity needs, time horizon, and regulatory or other considerations as constraints on asset allocation
- discuss tax considerations in asset allocation and rebalancing
- recommend and justify revisions to an asset allocation given change(s) in investment objectives and/or constraints
- discuss the use of short-term shifts in asset allocation
- identify behavioral biases that arise in asset allocation and recommend methods to overcome them

Overview of Private Wealth Management

The candidate should be able to:

- contrast private client and institutional client investment concerns
- discuss information needed in advising private clients
- identify tax considerations affecting a private client’s investments
- identify and formulate client goals based on client information
- evaluate a private client’s risk tolerance
- describe technical and soft skills needed in advising private clients
- evaluate capital sufficiency in relation to client goals
- discuss the principles of retirement planning
- discuss the parts of an investment policy statement (IPS) for a private client
- prepare the investment objectives section of an IPS for a private client
- evaluate and recommend improvements to an IPS for a private client
- recommend and justify portfolio allocations and investments for a private client
- describe effective practices in portfolio reporting and review
- evaluate the success of an investment program for a private client
- discuss ethical and compliance considerations in advising private clients
Portfolio Management

- Discuss how levels of service and range of solutions are related to different private clients

Topics in Private Wealth Management

**The candidate should be able to:**
- Compare taxation of income, wealth, and wealth transfers
- Describe global considerations of jurisdiction that are relevant to taxation
- Discuss and analyze the tax efficiency of investments
- Analyze the impact of taxes on capital accumulation and decumulation in taxable, tax-exempt, and tax-deferred accounts
- Explain portfolio tax management strategies and their application
- Discuss risk and tax objectives in managing concentrated single-asset positions
- Describe strategies for managing concentrated positions in public equities
- Describe strategies for managing concentrated positions in privately owned businesses and real estate
- Discuss objectives—tax and non-tax—in planning the transfer of wealth
- Discuss strategies for achieving estate, bequest, and lifetime gift objectives in common law and civil law regimes
- Describe considerations related to managing wealth across multiple generations

Risk Management for Individuals

**The candidate should be able to:**
- Compare the characteristics of human capital and financial capital as components of an individual's total wealth
- Discuss the relationships among human capital, financial capital, and economic net worth
- Describe an economic (holistic) balance sheet
- Discuss risks (earnings, premature death, longevity, property, liability, and health risks) in relation to human and financial capital
- Describe types of insurance relevant to personal financial planning
- Describe the basic elements of a life insurance policy and how insurers price a life insurance policy
- Discuss the use of annuities in personal financial planning
- Discuss the relative advantages and disadvantages of fixed and variable annuities
- Discuss how asset allocation policy may be influenced by the risk characteristics of human capital
- Recommend and justify appropriate strategies for asset allocation and risk reduction when given an investor profile of key inputs

Portfolio Management for Institutional Investors

**The candidate should be able to:**
- Discuss common characteristics of institutional investors as a group
- Discuss investment policy of institutional investors
- Discuss the stakeholders in the portfolio, the liabilities, the investment time horizons, and the liquidity needs of different types of institutional investors
- Describe the focus of legal, regulatory, and tax constraints affecting different types of institutional investors
- Evaluate risk considerations of private defined benefit (DB) pension plans in relation to 1) plan funded status, 2) sponsor financial strength, 3) interactions between the sponsor's business and the fund's investments, 4) plan design, and 5) workforce characteristics
Portfolio Management

- evaluate the investment policy statement of an institutional investor
- evaluate the investment portfolio of a private DB plan, sovereign wealth fund, university endowment, and private foundation
- describe considerations affecting the balance sheet management of banks and insurers

Trade Strategy and Execution

The candidate should be able to:
- discuss motivations to trade and how they relate to trading strategy
- discuss inputs to the selection of a trading strategy
- compare benchmarks for trade execution
- recommend and justify a trading strategy (given relevant facts)
- describe factors that typically determine the selection of a trading algorithm class
- contrast key characteristics of the following markets in relation to trade implementation: equity, fixed income, options and futures, OTC derivatives, and spot currency
- explain how trade costs are measured and determine the cost of a trade
- evaluate the execution of a trade
- evaluate a firm's trading procedures, including processes, disclosures, and record keeping with respect to good governance

Portfolio Performance Evaluation

The candidate should be able to:
- explain the following components of portfolio evaluation and their interrelationships: performance measurement, performance attribution, and performance appraisal
- describe attributes of an effective attribution process
- contrast return attribution and risk attribution; contrast macro and micro return attribution
- describe returns-based, holdings-based, and transactions-based performance attribution, including advantages and disadvantages of each
- interpret the sources of portfolio returns using a specified attribution approach
- interpret the output from fixed-income attribution analyses
- discuss considerations in selecting a risk attribution approach
- identify and interpret investment results attributable to the asset owner versus those attributable to the investment manager
- discuss uses of liability-based benchmarks
- describe types of asset-based benchmarks
- discuss tests of benchmark quality
- describe the impact of benchmark misspecification on attribution and appraisal analysis
- describe problems that arise in benchmarking alternative investments
- calculate and interpret the Sortino ratio, the appraisal ratio, upside/downside capture ratios, maximum drawdown, and drawdown duration
- describe limitations of appraisal measures and related metrics
- evaluate the skill of an investment manager
**Investment Manager Selection**

*The candidate should be able to:*

- describe the components of a manager selection process, including due diligence
- contrast Type I and Type II errors in manager hiring and continuation decisions
- describe uses of returns-based and holdings-based style analysis in investment manager selection
- describe uses of the upside capture ratio, downside capture ratio, maximum drawdown, drawdown duration, and up/down capture in evaluating managers
- evaluate a manager’s investment philosophy and investment decision-making process
- evaluate the costs and benefits of pooled investment vehicles and separate accounts
- compare types of investment manager contracts, including their major provisions and advantages and disadvantages
- describe the three basic forms of performance-based fees
- analyze and interpret a sample performance-based fee schedule

**Case Study in Portfolio Management: Institutional**

*The candidate should be able to:*

- discuss tools for managing portfolio liquidity risk
- discuss capture of the illiquidity premium as a long-term investment strategy
- analyze asset allocation and portfolio construction in relation to liquidity needs and risk and return requirements and recommend actions to address identified needs
- demonstrate the application of the Code of Ethics and Standards of Professional Conduct regarding the actions of individuals involved in manager selection
- analyze the costs and benefits of derivatives versus cash market techniques for establishing or modifying asset class or risk exposures
- demonstrate the use of derivatives overlays in tactical asset allocation and rebalancing
- discuss ESG considerations in managing long-term institutional portfolios

**Case Study in Risk Management: Private Wealth**

*The candidate should be able to:*

- identify and analyze a family’s risk exposures during the early career stage
- recommend and justify methods to manage a family’s risk exposures during the early career stage
- identify and analyze a family’s risk exposures during the career development stage
- recommend and justify methods to manage a family’s risk exposures during the career development stage
- identify and analyze a family’s risk exposures during the peak accumulation stage
- recommend and justify methods to manage a family’s risk exposures during the peak accumulation stage
- identify and analyze a family’s risk exposures during the early retirement stage
- recommend and justify a plan to manage risks associated with an individual’s retirement lifestyle goals
Case Study in Risk Management: Institutional

The candidate should be able to:
- discuss financial risks associated with the portfolio strategy of an institutional investor
- discuss environmental and social risks associated with the portfolio strategy of an institutional investor
- analyze and evaluate the financial and non-financial risk exposures in the portfolio strategy of an institutional investor
- discuss various methods to manage the risks that arise on long-term direct investments of an institutional investor
- evaluate strengths and weaknesses of an enterprise risk management system and recommend improvements