The CIPM Principles curriculum introduced ethical reasoning and presented the provisions of the CIPM Association Code of Ethics and Standards of Professional Conduct. At the Expert level, you are expected to demonstrate your ability to recognize ethical issues that you may encounter and to apply the ethical principles and standards governing your professional conduct.

Note: The CIPM Association Code and Standards are based on the CFA Institute Code of Ethics and CFA Institute Standards of Professional Conduct. This study session makes use of the 11th edition of the CFA Institute Standards of Practice Handbook (SOPH) to focus on applications of the Code and Standards and recommended procedures for complying with them. SOPH states in the Preface that it “is intended for a diverse and global audience.” Although the guidance, recommendations, and applications provided in SOPH supplement the CFA Institute Code and Standards, this reading can be used in parallel with the CIPM Association Code and Standards as well. Recognizing that the following list is not exhaustive, the following exchanges may help with your understanding the reading:

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READING ASSIGNMENTS

1  CIPM Association Code of Ethics and Standards of Professional Conduct
2  Standards of Practice Handbook, Eleventh Edition

LEARNING OUTCOMES

READING 1. CIPM ASSOCIATION CODE OF ETHICS AND STANDARDS OF PROFESSIONAL CONDUCT

The candidate should be able to:

a  evaluate procedures for complying with the CIPM Association Standards of Professional Conduct;

b  explain the individual’s responsibilities as a candidate or member, including references to membership in the CIPM Association, the CIPM designation, and candidacy in the CIPM program;

c  evaluate circumstances, identify violations, and formulate appropriate corrective actions based on the CIPM Association Code of Ethics and Standards of Professional Conduct.

READING 2. STANDARDS OF PRACTICE HANDBOOK, ELEVENTH EDITION
The CIPM Principles curriculum presented the calculation of time-weighted and money-weighted rates of return, including methods for estimating time-weighted returns for periods in which external cash flows occur. This study session reviews certain relatively advanced topics.

The first reading in this study session addresses the measurement of portfolio returns in several practically important cases; specifically, when portfolios contain short positions or make use of derivatives contracts, or when positions are held in multiple currencies other than the base currency. The second reading considers the factors that give rise to prior period adjustments and the related performance measurement policy issues.

**READING ASSIGNMENTS**

3 Topics in Return Measurement  
by Carl R. Bacon, CIPM, Bruce J. Feibel, CFA, and Bernd R. Fischer, PhD  
4 Adjustments to Prior Period Returns  
by David D. Spaulding, DPS, CIPM, and Stefan J. Illmer, PhD

**LEARNING OUTCOMES**

**READING 3. TOPICS IN RETURN MEASUREMENT**

The candidate should be able to:

a  calculate and interpret rates of return of long–short, short extension, and market-neutral investment portfolios;  
b  determine the effects on portfolio return of specified positions in forwards, futures, swaps, and options;  
c  define economic (notional) exposure and notional return;  
d  describe the notional market value approach to calculating returns to portfolios including forwards, futures, swaps, or options;
e calculate and interpret economic exposures and notional returns of portfolios including forwards, futures, swaps, or options;
f calculate and interpret the returns to unhedged and partially hedged multicurrency portfolios;
g describe the problem of zero or near-zero market value denominators (e.g., in currency overlay portfolios).

READING 4. ADJUSTMENTS TO PRIOR PERIOD RETURNS
The candidate should be able to:
a identify and describe common causes of discrepancies between managers’ and custodians’ accounting data;
b explain the issues that affect prior period adjustments.
The marketplace offers a wide range of competing indexes for many asset classes. Rather than attempting to provide up-to-date descriptions of all their characteristics, the CIPM curriculum discusses the factors that investment professionals should take into account when selecting benchmarks. This reading addresses the use of strategy benchmarks (also known as custom benchmarks) in the evaluation of managers’ investment processes.

**READING ASSIGNMENTS**

5. Strategy Benchmarks: From the Investment Manager’s Perspective
   by David E. Kuenzi, CFA

**LEARNING OUTCOMES**

**READING 5. STRATEGY BENCHMARKS: FROM THE INVESTMENT MANAGER’S PERSPECTIVE**

The candidate should be able to:

- explain the concept of normal (neutral) weights;
- distinguish between published benchmark-centered investment disciplines and manager strategy investment disciplines;
- explain why strategy benchmarks are more appropriate for manager strategy investment disciplines;
- describe benchmark selection/creation and risk of an institutional investment process;
- describe the impact of benchmark selection on attribution analysis and the calculation of tracking error and information ratios.
The CIPM Principles curriculum introduced single-period, single-currency performance attribution. The present study session is the first of two study sessions devoted to more advanced techniques of attribution analysis.

This study session consists of a single reading that addresses return attribution in several practically important cases: portfolios with short positions, derivatives exposures, and/or multicurrency exposures.

**READING ASSIGNMENTS**

6 Topics in Return Attribution
by Carl R. Bacon, CIPM

**LEARNING OUTCOMES**

**READING 6. TOPICS IN RETURN ATTRIBUTION**

The candidate should be able to:

a calculate and interpret return attribution results for portfolios containing short positions;
b calculate and interpret return attribution results for portfolios containing futures or options;
c calculate and interpret the asset allocation, security selection, and currency allocation effects in a multi-currency portfolio using the Karnosky–Singer approach;
d calculate and interpret the asset allocation, security selection, and currency allocation effects in a multi-currency portfolio using a geometric methodology when returns are not continuously compounded;
e describe why interest rate differentials matter in multi-currency return attribution;
f contrast arithmetic and geometric multi-period attribution analysis;
g describe problems associated with multi-asset attribution analysis, including analysis of balanced portfolios and portfolios combining liquid and illiquid assets.
This is the second of two study sessions devoted to advanced topics in attribution analysis. The present study session focuses on fixed-income attribution. Although the performance measurement industry has developed a range of fixed-income attribution methodologies, the reading in this study session has been chosen to strengthen your grasp of fundamental concepts.

**READING ASSIGNMENTS**

7  Introduction to Fixed-Income Attribution
   by Claude Giguère, BScA, and Andrew Kophamel, FRM, CFA, CIPM

**LEARNING OUTCOMES**

**READING 7. INTRODUCTION TO FIXED-INCOME ATTRIBUTION**

The candidate should be able to:

a  describe the three major approaches to fixed-income attribution (exposure decomposition—duration based, yield curve decomposition—duration based, and yield curve decomposition—full repricing);

b  compare the three major approaches to fixed-income attribution in terms of associated decision-making processes, typical users, operational considerations, and limitations;

c  describe and evaluate the three major approaches to fixed-income attribution in terms of their implementation, output, interpretation, and appropriate applications by various users;

d  analyze and interpret the output of a fixed-income attribution analysis.
Recognizing that distinguishing between skill and luck is problematic, performance appraisal and manager selection address questions such as how to measure investment skill and whether a fund sponsor should hire, retain, or fire an investment manager.

The first reading presents perspectives on performance appraisal measures currently used to appraise traditional and alternative investment managers.

The second reading presents an approach to equity style analysis; equity style is often a major consideration in active equity manager selection.

The third reading addresses performance appraisal from the viewpoint of institutional investors responsible for directing and monitoring diversified, multiple-asset class, multiple-manager funds. In this total fund perspective, a case study is presented that integrates analytical approaches presented throughout the CIPM curriculum, including performance measurement relative to benchmarks and peer groups, portfolio characteristics analysis, performance attribution, and ex post risk analysis.

**READING ASSIGNMENTS**

8  How Sharp is the Sharpe Ratio? Risk-Adjusted Performance Measures  
   by Carl R. Bacon, CIPM

9  Equity Style Analysis: Beyond Performance Measurement  
   by George Degroot, CFA, and Paul Greenwood, CFA

10 Investment Performance Appraisal  
   by John P. Meier, CFA
LEARNING OUTCOMES

READING 8. HOW SHARP IS THE SHARPE RATIO?: RISK-ADJUSTED PERFORMANCE MEASURES

The candidate should be able to:

a calculate $M^2$ and contrast it with the Sharpe ratio;
b calculate the Treynor ratio and contrast it with the Sharpe ratio;
c explain the appraisal ratio;
d explain the information ratio;
e explain how to adjust various performance measurement measures for non-normal return distributions;
f calculate the reward-to-VaR ratio;
g explain the conditional Sharpe ratio;
h calculate and explain the modified Sharpe ratio;
i calculate and explain the average drawdown;
j explain the ulcer index.

READING 9. EQUITY STYLE ANALYSIS: BEYOND PERFORMANCE MEASUREMENT

The candidate should be able to:

a describe how characteristic-based analysis provides a deeper understanding of a manager’s strategy;
b explain how characteristic-based analysis can be used to evaluate a manager’s investment philosophy and risk tolerance;
c explain how characteristic-based analysis can be used to compare the performance of large cap growth managers;
d explain how characteristic-based analysis can be used to assess how a manager’s strategy will perform in different market environments;
e describe how characteristic-based analysis can be used to assess how a manager performed across multiple time periods.

READING 10. INVESTMENT PERFORMANCE APPRAISAL

The candidate should be able to:

a explain the role of the client’s investment policy statement (IPS) in the process of monitoring and evaluating managers;
b demonstrate the use of performance triangles vs. benchmarks in assessing a manager’s track record;
c justify the use of peer group comparisons in the manager monitoring and evaluation process, given that manager universes are not valid benchmarks;
d identify and evaluate evidence that a manager may be deviating from the stated investment philosophy, strategy, and/or decision making process.
This study session addresses important topics in investment manager selection. The first reading explores important aspects of investment manager selection including distinctive due diligence concerns for investment managers of traditional and alternative investments, the manager interview process, considerations in forming a portfolio of managers, and manager monitoring and continuance. The three readings by Stewart take a generally quantitative approach to, respectively, index fund selection, determining allocations to passive and active managers, and contracting with investment managers.

The final reading in this study session examines various foundational issues in manager selection, arguing the importance of using measures of active return and active risk purged of any systematic risk influences. The reading also describes considerations in constructing an optimal portfolio of managers.

**READING ASSIGNMENTS**

11. Topics in Investment Manager Selection  
   by Jeffrey C. Heisler, PhD, CFA, and Jeffrey R. Nipp, CAIA, CFA

12. Index Fund Investing  
   by Scott D. Stewart, PhD, CFA

13. Setting Weights for Active and Index Managers  
   by Scott D. Stewart, PhD, CFA

14. The Dynamics of Manager Selection: Performance Analysis, Monitoring, and Fee Incentives  
   by Scott D. Stewart, PhD, CFA

15. The Dimensions of Active Management: Why Alpha and Active Risk Are the Only Things That Matter  
   by M. Barton Waring and Laurence B. Siegel
LEARNING OUTCOMES

READING 11. TOPICS IN INVESTMENT MANAGER SELECTION
The candidate should be able to:

a. describe portfolio considerations in selecting investment managers;
b. describe points to cover in an investment manager interview and during an on-site visit to the investment manager's firm;
c. describe special considerations in the selection of equity portfolio managers;
d. describe special considerations in the selection of fixed-income portfolio managers;
e. describe special considerations in the selection of passive investment managers;
f. describe special considerations in the selection of hedge funds;
g. describe special considerations in the selection of private equity managers;
h. recommend and justify the selection of a passive investment manager for a given asset class;
i. recommend and justify the selection of an active investment manager for a given asset class;
j. describe considerations in monitoring investment managers;
k. describe costs and other considerations in terminating and replacing investment managers;
l. evaluate how an investment manager has been selected;
m. evaluate the selection of a replacement investment manager.

READING 12. INDEX FUND INVESTING
The candidate should be able to:

a. describe factors affecting the costs of indexing;
b. describe the sources of tracking risk (tracking error);
c. describe sources of persistence in index manager performance.

READING 13. SETTING WEIGHTS FOR ACTIVE AND INDEX MANAGERS
The candidate should be able to:

a. describe the components of the investor's utility function for manager selection;
b. explain why the investor's utility function for manager selection uses active return instead of total return;
c. describe approaches to incorporating risk into the manager selection process;
d. describe the optimal mix of managers;
e. describe how search and monitoring costs affect the manager selection process.

READING 14. THE DYNAMICS OF MANAGER SELECTION: PERFORMANCE ANALYSIS, MONITORING, AND FEE INCENTIVES
The candidate should be able to:

a. describe considerations in the use of performance data to assess manager alpha;
b. describe how the principal–agent relationship between asset managers and investors underlies assets under management fees and performance-based fees;
describe the three basic forms of performance-based fees;

analyze and interpret a sample performance-based fee schedule.

READING 15. THE DIMENSIONS OF ACTIVE MANAGEMENT: WHY ALPHA AND ACTIVE RISK ARE THE ONLY THINGS THAT MATTER

The candidate should be able to:

a describe the components of total risk (market risk and pure active risk) and explain how these components are related to strategic asset allocation;

b explain misfit risk (i) for a single active manager and (ii) for a portfolio of active managers chosen by an investor (net misfit risk);

c explain the calculation of the pure information ratio (i) for a single active manager and (ii) for a portfolio of active managers;

d distinguish between active investment results that are under an investment manager’s control and those that are under an investor’s control;

e explain the limitations of historical alphas, style boxes, and traditional active risk concepts for building a portfolio of managers;

f describe how to estimate the inputs needed in the optimization process that leads to the efficient frontier of active managers;

g explain why the manager optimization process favors lower active-risk managers.
At the Expert level, you will learn about the required and recommended provisions of the GIPS standards and how to apply them in practice. This study session presents and illustrates the application of the Standards.

READING ASSIGNMENTS

16 Overview of the Global Investment Performance Standards: CIPM Expert Level
   by Philip Lawton, PhD, CFA, CIPM
17 Global Investment Performance Standards (GIPS)

LEARNING OUTCOMES

READING 16. OVERVIEW OF THE GLOBAL INVESTMENT PERFORMANCE STANDARDS: CIPM EXPERT LEVEL 1

The candidate should be able to:

a explain the fundamentals of compliance with the GIPS standards, including the definition of the firm, calculating total firm assets, and the conditions under which an investment management firm can claim compliance;

b determine whether a firm’s input data use and record keeping procedures are consistent with the requirements and recommendations of the GIPS standards;

c compare fair value and market value of assets and show how to implement the valuation recommendations of the GIPS standards, including the valuation hierarchy;

d calculate composite returns in accordance with the GIPS standards;

e explain why the GIPS standards require the inclusion of returns from cash and cash equivalents in total return calculations;
f  explain and calculate the treatment of trading expenses and fees, including determining gross-of-fees and net-of-fees portfolio returns in accordance with the GIPS standards;

g  evaluate the appropriateness of composite construction according to the GIPS standards, including (i) linked performance of model or simulated portfolios, (ii) inclusion of new portfolios and termination and switching of portfolios, and (iii) treatment of portfolios with external cash flows;

h  evaluate the classification of portfolios as discretionary or non-discretionary in accordance with the GIPS standards;

i  state the requirements and recommendations of the GIPS standards with respect to disclosures, presentation, and reporting;

j  identify errors and omissions in disclosures, presentation, and reporting, and recommend changes that would bring them into compliance with the GIPS standards;

k  determine the portability of performance track records from a past firm or affiliation in accordance with the GIPS standards;

l  determine whether investments are subject to the provisions of the GIPS standards related to private equity;

m  explain the GIPS standards related to real estate and private equity valuation;

n  state the requirements of the GIPS Advertising Guidelines including the correct wording of the GIPS compliance statement for advertisements;

o  determine whether an advertisement adheres to the requirements of the GIPS Advertising Guidelines;

p  explain the purpose and scope of verification in accordance with the GIPS standards and state the correct wording of the GIPS compliance statement used for a firm that is verified;

q  identify and define the terms presented in the GIPS Glossary.

READING 17. GLOBAL INVESTMENT PERFORMANCE STANDARDS (GIPS)