

## Trading, Performance Evaluation, and Manager Selection

**T**he investment process is not complete until securities are bought or sold, and so the quality of trade execution is an important determinant of investment results. The first reading examines how portfolio managers need to work closely with traders to determine the most appropriate trading strategy given their motivation for trading, risk aversion, trade urgency, and other factors such as order characteristics and market conditions. Portfolio manager motivations to trade, inputs to trade strategy selection, and the range of trade implementation choices, trading algorithms, and a comparison of various markets are discussed. Guidance is provided on evaluating a firm's trading procedures for good governance practices, measuring trade costs, and evaluating success in trade execution.

Performance evaluation is one of the most critical areas of investment analysis. Performance results can be used to assess the quality of the investment approach and suggest changes that might improve it. They are also used to communicate the results of the investment process to other stakeholders and may even be used to compensate the investment managers.

The second reading on performance evaluation includes three primary components, each corresponding to a specific question needed to answer to evaluate a portfolio's performance:

- performance measurement—what was the portfolio's performance?;
- performance attribution—how was the performance achieved?; and
- performance appraisal—was the performance achieved through manager skill or luck?

The last reading of this study session addresses the complex and detailed process involved in evaluating an investment manager. The focus is on understanding how the investment results were achieved and on assessing the likelihood that the investment process that generated these returns will produce superior or at least satisfactory

investment results going forward. It also entails an evaluation of a firm's integrity, operations, and personnel. This reading provides a framework that introduces and describes the important elements of the manager selection process.

## READING ASSIGNMENTS

<b>Reading 34</b>	Trade Strategy and Execution by Bernd Hanke, PhD, CFA, Robert Kissell, PhD, Connie Li, and Roberto Malamut
<b>Reading 35</b>	Portfolio Performance Evaluation edited by Marc A. Wright, CFA
<b>Reading 36</b>	Investment Manager Selection by Jeffrey C. Heisler, PhD, CFA, and Donald W. Lindsey, CFA

## LEARNING OUTCOMES

### READING 34. TRADE STRATEGY AND EXECUTION

The candidate should be able to:

- a** discuss motivations to trade and how they relate to trading strategy;
- b** discuss inputs to the selection of a trading strategy;
- c** compare benchmarks for trade execution;
- d** select and justify a trading strategy (given relevant facts);
- e** describe factors that typically determine the selection of a trading algorithm class;
- f** contrast key characteristics of the following markets in relation to trade implementation: equity, fixed income, options and futures, OTC derivatives, and spot currency;
- g** explain how trade costs are measured and determine the cost of a trade;
- h** evaluate the execution of a trade;
- i** evaluate a firm's trading procedures, including processes, disclosures, and record keeping with respect to good governance.

### READING 35. PORTFOLIO PERFORMANCE EVALUATION

The candidate should be able to:

- a** explain the following components of portfolio evaluation and their interrelationships: performance measurement, performance attribution, and performance appraisal;
- b** describe attributes of an effective attribution process;
- c** distinguish between return attribution and risk attribution and between macro and micro return attribution;
- d** describe returns-based, holdings-based, and transactions-based performance attribution, including advantages and disadvantages of each;
- e** interpret the sources of portfolio returns using a specified attribution approach;
- f** interpret the output from fixed-income attribution analyses;
- g** discuss considerations in selecting a risk attribution approach;

- h** distinguish between investment results attributable to the asset owner versus those attributable to the investment manager;
- i** discuss uses of liability-based benchmarks;
- j** describe types of asset-based benchmarks;
- k** discuss tests of benchmark quality;
- l** describe problems that arise in benchmarking alternative investments;
- m** describe the impact of benchmark misspecification on attribution and appraisal analysis;
- n** calculate and interpret the Sortino ratio, the appraisal ratio, upside/downside capture ratios, maximum drawdown, and drawdown duration;
- o** describe limitations of appraisal measures and related metrics;
- p** evaluate the skill of an investment manager.

### READING 36. INVESTMENT MANAGER SELECTION

The candidate should be able to:

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