STUDY SESSION

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Performance Evaluation

Performance evaluation addresses three questions that are essential in evaluating the results of the portfolio management process:

- What was the portfolio's performance?
- Why did the portfolio produce the observed performance?
- Was the portfolio's performance due to luck or skill?

These questions are answered by performance measurement, performance attribution, and performance appraisal, respectively. The information developed in performance evaluation provides key inputs to a) assessing compliance with investment policy and progress toward achieving client goals, b) determining whether an investment manager's performance has been consistent with the manager's stated investment discipline, and c) deciding whether to hire, retain, or dismiss an investment manager.

READING ASSIGNMENTS

Reading 31	Evaluating Portfolio Performance by Jeffery V. Bailey, CFA, Thomas M. Richards, CFA, and David E. Tierney

LEARNING OUTCOMES

READING 31. EVALUATING PORTFOLIO PERFORMANCE

The candidate should be able to:

a demonstrate the importance of performance evaluation from the perspective of fund sponsors and the perspective of investment managers;

b explain the following components of portfolio evaluation: performance measurement, performance attribution, and performance appraisal;

c calculate, interpret, and contrast time-weighted and money-weighted rates of return and discuss how each is affected by cash contributions and withdrawals;

d identify and explain potential data quality issues as they relate to calculating rates of return;

e demonstrate the decomposition of portfolio returns into components attributable to the market, to style, and to active management;

f discuss the properties of a valid performance benchmark and explain advantages and disadvantages of alternative types of benchmarks;

g explain the steps involved in constructing a custom security-based benchmark;

h discuss the validity of using manager universes as benchmarks;

i evaluate benchmark quality by applying tests of quality to a variety of possible benchmarks;

j discuss issues that arise when assigning benchmarks to hedge funds;

k distinguish between macro and micro performance attribution and discuss the inputs typically required for each;

l demonstrate and contrast the use of macro and micro performance attribution methodologies to identify the sources of investment performance;

m discuss the use of fundamental factor models in micro performance attribution;

n evaluate the effects of the external interest rate environment and active management on fixed-income portfolio returns;

o explain the management factors that contribute to a fixed-income portfolio's total return and interpret the results of a fixed-income performance attribution analysis;

p calculate, interpret, and contrast alternative risk-adjusted performance measures, including (in their *ex post* forms) alpha, information ratio, Treynor measure, Sharpe ratio, and M^2;

q explain how a portfolio's alpha and beta are incorporated into the information ratio, Treynor measure, and Sharpe ratio;

r demonstrate the use of performance quality control charts in performance appraisal;

s discuss the issues involved in manager continuation policy decisions, including the costs of hiring and firing investment managers;

t contrast Type I and Type II errors in manager continuation decisions.