Exhibit R-155

Topic Learning Objectives, Association for Investment Management Research and Candidate Body of Knowledge Topical Outline, CFA Institute

Topic Learning Objectives

Level I is the foundation for the CFA Program and provides the basic tools of asset valuation and inputs for portfolio management. Ethics is a vital part of the investment profession, and you are expected to have a thorough understanding (i.e., full and complete comprehension) of the AIMR Code of Ethics and Standards of Professional Conduct. Financial statement analysis, quantitative techniques, and economics are important tools that you must thoroughly understand. You must also have a working knowledge (i.e., useful understanding) of the fundamentals of risk and return, asset valuation, and portfolio management—including the basic measurements of returns and risks, the common ways assets are valued, and the key elements of the portfolio management process.

Based on the knowledge and skills you developed at Level I, at *Level II* you should be able to analyze and value debt, equity, and derivative assets and recommend those assets with the most (or least) attractive expected return–risk characteristics for purchase (or sale). You should be able to apply a top-down valuation approach based on global trends, national economies, industry- and company-specific factors, and individual asset characteristics. An alternative (bottom-up) approach that you should be able to apply is the identification of those companies and industries/sectors that are undervalued regardless of the macroeconomic forecast. You should be able to use a variety of valuation techniques and the duPont approach to financial analysis. You are also expected to understand and apply analytical techniques to alternative assets, such as real estate, venture capital, and restructuring situations. You should be able to incorporate international factors in asset valuations. You should be able to apply knowledge of the AIMR Code of Ethics and Standards of Professional Conduct to recognize and avoid unprofessional practices and violations of standards where issues are less than clear (e.g., issues involving conflicts of interest, compensation, inside information, corporate governance, proxies, and the "Prudent Expert Rule").

Based on the knowledge and skills you developed at Levels I and II, at *Level III* you are expected to (1) develop suitable investment policies that meet the specific requirements and circumstances of individual and institutional investors, (2) incorporate domestic and international economic forecasts and market conditions into portfolio investment strategies, (3) determine asset allocations that are consistent with investment policies and strategies, (4) implement portfolio strategies that take into consideration the costs and benefits of timely execution, and (5) monitor and evaluate portfolio performance and respond to change. You should be able to anticipate potential professional conduct problems and create procedures to resolve or adequately address those problems. You are also expected to be able to support your recommendations, constructively critique the recommendations of others, and suggest changes to improve results.

The following topic-level learning objectives broadly describe what a candidate should be prepared to do at Levels I, II, and III. They are general statements designed to help you master the topics about which you can expect to be examined. These learning objectives are only a guide and cannot, of course, encompass all the concepts for which you are responsible. They should not be viewed as a "shortcut" to reading all of the assigned material.

These learning objectives are based on a periodic survey of CFA charterholders. The survey respondents indicate how important each topic in the CBOK is to their professional practice, and these ratings are translated into learning objectives. The curriculum is designed to help you achieve these objectives.

NOTE: Level II candidates are responsible for knowledge acquired in preparation for the 1997 Level I examination.

The general purposes of each topical area are for candidates to learn to:

Ethical and Professional Standards: *Level I*: demonstrate a thorough knowledge of the AIMR Code of Ethics and Standards of Professional Conduct. *Level II:* apply knowledge of the AIMR Code of Ethics and Standards of Professional Conduct to recognize and avoid unprofessional practices and violations of standards where issues are less than clear (e.g., conflicts of interest, compensation, inside information, corporate governance, proxies, and the Prudent Expert Rule). *Level III*: anticipate potential professional conduct problems that may arise and create procedures to resolve or adequately address those problems; a focus will be on drafting, critiquing, and revising ethics and professional conduct policy statements and compliance procedures in accordance with AIMR's Code of Ethics, Standards of Professional Conduct, and the AIMR Performance Presentation Standards.

Quantitative Methods: *Level I*: demonstrate knowledge of elementary statistics, data collection and analysis, regression and correlation analysis, probability theory and distributions, time value of money, and performance measurement. *Level II:* demonstrate a thorough knowledge of elementary statistics, data collection and analysis, regression and correlation analysis, probability theory and distributions, time series analysis, time value of money, and performance measurement. *Level III:* use quantitative methods to develop and implement portfolio strategies.

Economics: *Level I*: demonstrate a thorough knowledge of macroeconomic and microeconomic principles, including the key components of economic activity, macro theory and policy, international trade, and exchange rates. *Level II:* develop and use forecasts of domestic and international economic and industrial activity in the valuation of markets and investment alternatives; analyze the relationships among domestic and foreign economies and markets; relate the economic cycle to different industries and companies, and use the information to analyze company and industry trends and to make investment valuations. *Level III:* develop expected returns and risks for asset classes and individual assets based on macro- and micro-expectational factors.

Accounting and Corporate Finance: *Level I*: demonstrate a working knowledge of financial accounting procedures and the rules that govern disclosure (emphasis is on the basic financial statements and how alternative accounting methods affect these statements); understand how to apply accounting rules and conventions to the reporting of such items as income taxes, inventories, depreciation, and leases; understand how corporate finance concepts such as cash flow, liquidity, leverage, cost of capital, and dividends are used in the valuation process; understand the international accounting differences that have evolved as a result of environmental and cultural differences. *Level II:* analyze and use financial statements and disclosures in the investment valuation process; analyze a company's liquidity, profitability, financial stability, solvency, and asset utilization; analyze the effect of accounting choices on financial statements (the candidate should be familiar with the forms, terminology, and financial significance of mergers and acquisitions); analyze differences among U.S., country-specific, and international accounting standards and incorporate the findings into analyses. *Level III:* apply knowledge of accounting and corporate finance acquired at Levels I and II to value assets and establish portfolio policies and strategies.

Global Markets and Instruments: *Level I*: demonstrate a working knowledge of global financial markets and instruments. *Level II:* apply knowledge of global financial markets and instruments in the valuation of individual assets. *Level III:* apply knowledge of global financial markets and instruments in the management of portfolios and assets.

Valuation and Investment Theory: *Level I*: demonstrate a thorough knowledge of valuation models and their theoretical underpinnings (e.g., risk–return relationships, the Efficient Market Hypothesis, CAPM, APT, the dividend discount model, option pricing). *Level II:* apply knowledge of investment theory and valuation models to the valuation of individual assets. *Level III:* apply knowledge of investment theory and valuation models to the management of portfolios.

Analysis of Equity Investments: *Level I*: demonstrate a working knowledge of the analysis of equity risk and return (e.g., for industries, companies) and a basic understanding of technical analysis. *Level II:* apply fundamental analysis to generate investment valuations; analyze special situations (e.g., corporate restructurings, mergers and acquisitions, closely held companies, distressed securities, and venture capital); value equity derivative securities; use various equity valuation models to estimate equity returns and risk. *Level III:* apply knowledge of equity securities analysis in the management of portfolios.

Analysis of Fixed-Income Investments: *Level I*: demonstrate a working knowledge of the analysis of fixed-income risk and return (e.g., term structure, yield measures, indenture provisions, duration and convexity, credit ratings). *Level II:* estimate fixed-income risks and returns; analyze fixed-income instruments with unique features; value fixed-income derivative securities. *Level III:* apply knowledge of fixed-income securities analysis in the management of portfolios.

Analysis of Alternative Investments: *Level I*: demonstrate a working knowledge of basic real estate and mutual fund analysis. *Level II:* estimate alternative investment risks and returns and use various valuation methods for real estate. *Level III:* analyze the use of alternative investments, including real estate and mutual funds, in the management of portfolios.

Portfolio Management: *Level I*: demonstrate a working knowledge of the key elements of the portfolio management process, including investment policy and asset allocation. *Level II:* apply the basics of the portfolio management process to specific scenarios. *Level III:* specify and quantify investor objectives, constraints, and preferences in terms of return requirements and risk tolerances and develop an appropriate investment policy; document approved investment policies; develop expected returns and risks for asset classes and individual assets based on macro- and micro-expectational factors; recommend an appropriate asset allocation based on return and risk expectational factors and investment policy; develop strategies for managing portfolios of domestic and foreign fixed-income securities, including passive, semi-active, and active management techniques; develop strategies for incorporating alternative assets (real estate, venture capital, and other assets) in multi-asset portfolios; develop strategies for managing portfolios of domestic and foreign equity securities, including passive, semi-active, and active management techniques, and incorporating management styles (e.g., capitalization, growth vs. value); manage portfolio risk exposure and, if possible, enhance expected return by using futures contracts, options, swaps, and other derivative securities; implement strategies through cost-effective/timely trades; monitor the portfolio and reevaluate portfolio strategy, market expectation factors, and investor needs to determine whether rebalancing is appropriate; evaluate portfolio and manager performance relative to investment objectives and appropriate benchmarks in a manner consistent with AIMR's Performance Presentation Standards.

Learning Outcome Statements

The Candidate Curriculum Committee (CCC) carefully chooses professional journal articles, textbook chapters, and other material for the curriculum because the readings contain key points relevant to the learning objectives. The CCC writes the LOS to indicate what you should be able to accomplish after reading and studying the material. The relevant material is often concentrated in a part of the assigned reading, however, so another objective of the LOS is to point you toward specific sections and away from other material (such as an author's opinion or extraneous details) that the CCC did not intend to be part of the curriculum. You should use the LOS to guide your study.

The LOS link the Candidate Body of Knowledge to the curriculum and to the CFA examinations. LOS guide the examinations as well as candidates; the LOS communicate to the Council of Examiners what exam questions the literature will support. The correspondence between LOS and exam questions, however, may not be direct. For example, an examination question may require you to integrate more than one LOS. The LOS should not, therefore, be viewed as a proxy for the examination. Nevertheless, if you can accomplish the goals of the LOS, you should be able to successfully answer the examination questions.

LOS and the examinations use *command words* to guide you (see p. 23 for a complete description and listing of command words). In the LOS, command words indicate the degree of understanding required. The LOS predominantly use command words appropriate to the type of learning at each level. When appropriate, however, command words from lower levels may be used. For example, a Level II LOS may use a Level I command word (e.g., **describe**) to indicate when knowledge and comprehension are required. When a Level II command word is used, application and analysis are required.

The command words used in the examinations indicate what you are to do to answer the question. As with the LOS, exam questions may use command words from lower levels.

Study Materials

In designing the 1998 curriculum, AIMR's Candidate Curriculum Committee has included articles and books designed to help you master the topics in the Body of Knowledge. A complete list of textbooks for Level I, Level II, and Level III appears on pp. 28–29.

The past examinations and guideline answers provided to candidates are also a major part of the curriculum. You are expected to be familiar with the content of the past three years' Level II exams. A careful review of this material will help you identify topics that have been tested in the past. Note, however, that the curriculum changes from year to year and each examination is based on the curriculum assigned that year. You should study past examinations with the understanding that the 1998 curriculum outlined in this study guide will be the basis for the 1998 examinations. In addition, keep in mind that every examination is a sampling from the curriculum. A (confidential) sampling plan systematically covers the curriculum over a predetermined cycle. Not every topic will be on every examination.

You should review the guideline answers carefully. Guideline answers are published after the examinations are graded and reflect the full scope of answers that merited credit. Guideline answers are often more complete, therefore, than required for full credit on an actual exam, but they do add to your learning experience.

Of course, some of the Body of Knowledge can also be learned through practical experience. All candidates are expected to be knowledgeable about significant developments on the economic and business scene. You may be questioned about the investment implications of such developments.

Candidate Body of Knowledge Topic Outline

The Candidate Body of Knowledge (CBOK)* represents the core knowledge, skills, and abilities that are generally accepted and applied by investment professionals throughout the world. You should also review the:

- Topic areas weights for each exam level
- Study session outlines, LOS, and errata

I. Ethical and Professional Standards

A. Professional Standards of Practice

B. Ethical Practices

II. Quantitative Methods

A. Time Value of Money

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

I. Technical Analysis

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

IV. Financial Reporting and Analysis

A. Financial Reporting System (with an emphasis on IFRS)

B. Analysis of Principal Financial Statements

C. Financial Reporting Quality

D. Analysis of Inventories and Long-Lived Assets

E. Analysis of Taxes

F. Analysis of Debt

G. Analysis of Off-Balance-Sheet Assets and Liabilities

H. Analysis of Pensions, Stock Compensation, and Other Employee Benefits

I. Analysis of Inter-Corporate Investments

J. Analysis of Business Combinations

K. Analysis of Global Operations

L. Ratio and Financial Analysis

V. Corporate Finance

A. Corporate Governance

B. Dividend Policy

C. Capital Investment Decisions

D. Business and Financial Risk

E. Capital Structure Decisions

F. Working Capital Management

G. Mergers and Acquisitions and Corporate Restructuring

VI. Equity Investments

A. Types of Equity Securities and Their Characteristics

B. Equity Markets: Characteristics and Institutions

C. Equity Portfolio Benchmarks

D. Valuation of Individual Equity Securities

E. Fundamental Analysis (Sector, Industry, Company)

F. Equity Market Valuation and Return Analysis

G. Closely Held Companies and Inactively Traded Securities

H. Equity Portfolio Management Strategies

VII. Fixed Income

A. Types of Fixed-Income Securities and Their Characteristics

B. Fixed-Income Markets: Characteristics & Institutions

C. Fixed Income Portfolio Benchmarks

D. Fixed-Income Valuation (Sector, Industry, Company) and Return Analysis

E. Term Structure Determination and Yield Spreads

F. Analysis of Interest Rate Risk

G. Analysis of Credit Risk

H. Valuing Bonds with Embedded Options

I. Structured Products

J. Fixed-Income Portfolio Management Strategies

VIII. Derivatives

A. Types of Derivative Instruments and Their Characteristics

B. Forward Markets and Valuation of Forward Contracts

C. Futures Markets and Valuation of Futures Contracts

D. Options Markets and Valuation of Option Contracts

E. Swaps Markets and Valuation of Swap Contracts

F. Credit Derivatives Markets and Instruments

G. Uses of Derivatives in Portfolio Management

IX. Alternative Investments

A. Types of Alternative Investments and Their Characteristics

B. Real Estate Valuation

C. Private Equity/Venture Capital Valuation

D. Hedge Fund Strategies

E. Distressed Securities/Bankruptcies

F. Commodities and Managed Futures

G. Alternative Investment Management Strategies

G. Collectibles

X. Portfolio Management and Wealth Planning

A. The Investment Policy Statement

B. Modern Portfolio Management Concepts

C. Behavioral Finance

D. Management of Individual/Family Investor Portfolios

E. Management of Institutional Investor Portfolios

F. Investment Manager Selection

G. Economic Analysis and Setting Capital Market Expectations

H. Tax Efficiency Strategies

I. Asset Allocation

J. Portfolio Construction and Revision

K. Risk Management

L. Execution of Portfolio Decisions (Trading)

M. Performance Evaluation

N. Presentation of Performance Results

***Note:** The CBOK Topic Outline was updated July 2014.

The CBOK and Practice Analysis

The Candidate Body Of Knowledge (CBOK) (PDF) represents the core knowledge, skills, and abilities generally accepted and applied by investment professionals globally. It is grounded in practice, meaning that panels and surveys of thousands of investment professionals have had input into the Course of Study. Learn more about practice analysis.

Inside the CFA Program

From the creation of the Candidate Body of Knowledge to the grading and delivery of exam results, see how the program has evolved.

Learn more

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CIPM Program

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Codes, Standards & Guidelines

Policy Positions & Research

Professional Conduct Program

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Future of Finance

Publications & Multimedia

Continuing Education

Research & Financial Tools

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Membership

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