

2024 CAIA[®]

Exam Prep

SchweserNotes[™]

Professional Standards and Ethics &
Introduction to Alternative Investments

LEVEL I BOOK 1

KAPLAN SCHWESER

Kaplan Schweser's Path to Success

CAIA® Level I Exam

CAIA®

Welcome

As the head of Advanced Designations at Kaplan Schweser, I am pleased to have the opportunity to help you prepare for the CAIA exam. Kaplan Schweser has decades of experience in delivering the most effective CAIA exam prep products in the market and I know you will find them to be invaluable in your studies.

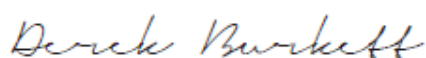
Our products are designed to be an integrated study solution across print and digital media to provide you the best learning experience, whether you are studying with a physical book, online, or on your mobile device.

Our core product, the SchweserNotes™, addresses all Topic Areas, Readings, and Learning Objectives in the CAIA curriculum. The SchweserNotes are written to clearly and succinctly address the content of each Learning Objective, which form the basis for all exam questions. Our Mock Exams and QuickSheet will help you in the later stages of your study preparation by helping you recall and retain information of important concepts.

All purchasers of the SchweserNotes receive online access to the Kaplan Schweser online platform (our learning management system or LMS) at www.Schweser.com. In the LMS, you will see a dashboard that tracks your overall progress and performance and also includes an Activity Feed, which provides structure and organization to the tasks required to prepare for the CAIA exam. You also have access to the online and eBook versions of the SchweserNotes so that you always have easy access to the readings. There are Reading Quiz questions at the end of each reading. I strongly encourage you to enter your Reading Quiz answers online and use the dashboard to track your progress and stay motivated.

Again, thank you for trusting Kaplan Schweser with your CAIA exam preparation. We're here to help you throughout your journey to become a CAIA charterholder.

Regards,



Derek Burkett, CFA, FRM, CAIA
Vice President (Advanced Designations)

Contact us for questions about your study package, upgrading your package,
purchasing additional study materials, or for additional information:

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Book 1: Professional Standards and Ethics & Introduction to Alternative Investments

SchweserNotes™ 2024

CAIA Level I

KAPLAN  **SCHWESER**

SCHWESERNOTES™ 2024 CAIA® LEVEL I BOOK 1: PROFESSIONAL STANDARDS AND ETHICS & INTRODUCTION TO ALTERNATIVE INVESTMENTS

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WELCOME TO THE 2024 SCHWESERNOTES™

Thank you for trusting Kaplan Schweser to help you reach your career and educational goals. We are very pleased to be able to help you prepare for the CAIA Level I exam. In this introduction, I want to explain the resources included with the SchweserNotes, suggest how you can best use Kaplan Schweser materials to prepare for the exam, and direct you toward other educational resources you will find helpful as you study for the exam.

SchweserNotes

The SchweserNotes consists of three volumes that include complete coverage of all CAIA assigned readings and learning objectives (LOs) as well as reading quizzes (multiple-choice questions for every reading) to help you master the material and check your retention of key concepts.

Practice Questions

To retain the material, it is important to quiz yourself often. We offer an online version of the SchweserPro™ QBank, which contains hundreds of Level I practice questions and explanations. We also offer Topic Quizzes online to further help you retain and apply what you have learned.

OnDemand Class

Our OnDemand Class provides comprehensive online instruction of every reading in the CAIA curriculum. This video lecture series brings the personal attention of a classroom into your home or office with over 40 hours of instruction. The class offers in-depth coverage of difficult concepts as well as a discussion of example questions. All videos are available for viewing at any time throughout the exam season. Candidates enrolled in the OnDemand Class also have the ability to email questions to the instructor at any time.

Mock Exams

Schweser offers four full 4-hour, 200-question practice exams. These online exams are important tools for gaining the speed and skills you will need to pass the exam. The Mock Exams contain answers with full explanations for self-grading and evaluation.

Late-Season Review

Late-season review and exam practice can make all the difference. Our OnDemand Review Package helps you evaluate your exam readiness with products specifically designed for late-season studying. This study package includes the OnDemand Review Workshop (12-hour archived online workshop covering essential curriculum topics) and Schweser's Secret Sauce® (concise summary of the CAIA curriculum).

Level I Exam Weightings

When preparing for the exam, be familiar with the weights assigned to each topic area within the curriculum. The Level I exam weights and questions are as follows:

Book	Topic Area	Exam Weight	Exam Questions
1	Professional Standards and Ethics	15%–25%	30–50
1	Introduction to Alternative Investments	20%–28%	40–56
2	Real Assets	11%–17%	22–34
2	Private Equity	6%–10%	12–20
2	Private Debt	8%–12%	16–24
3	Hedge Funds	11%–17%	22–34
3	Digital Assets	4%–8%	8–16
3	Additional Strategies	4%–8%	8–16

How to Succeed

The CAIA Level I exam is a formidable challenge, and you must devote considerable time and effort to be properly prepared. There are no shortcuts! You must learn the material, know the terminology and techniques, understand the concepts, and be able to answer 200 multiple-choice questions quickly and (at least 70%) correctly. A good estimate of the study time required is 200 hours on average, but some candidates will need more or less time, depending on their individual backgrounds and experience.

Expect CAIA Association to test your knowledge in a way that will reveal how well you know the Level I curriculum. You should begin studying early and stick to your study plan. You should first read the SchweserNotes and complete the practice questions for each reading. After completing each book, you should answer the provided topic quiz questions to understand how concepts may be tested on the exam.

It is recommended that you finish your initial study of the entire curriculum at least two weeks (earlier if possible) prior to your exam window to allow sufficient time for practice and targeted review. During this period, you should utilize all of your Schweser Mock Exams. This final review period is when you will get a clear indication of how effective your study efforts have been, and which readings require significant additional review. Answering exam-like questions across all readings and improving your exam time management skills will be important determinants of your success on exam day.

Best regards,

Eric Smith

Eric Smith, CFA, FRM, FDP
Director, Advanced Designations
Kaplan Schweser

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V. Investment Analysis, Recommendations, and Action

VI. Conflicts of Interest

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READINGS AND LEARNING OBJECTIVES

TOPIC 1

Standards of Practice Handbook, 11th ed. Charlottesville, Virginia: CFA Institute, 2014.

Reading 1.1: CFA Institute Standards of Practice

A.1: Demonstrate knowledge of Standard I: Professionalism.

Including:

- Interpret Standard I with respect to knowledge of the law, independence and objectivity, misrepresentation, and misconduct.
- Identify procedures for compliance with respect to knowledge of the law, independence and objectivity, misrepresentation, and misconduct.

A.2: Demonstrate knowledge of Standard II: Integrity of Capital Markets.

Including:

- Interpret Standard II with respect to material nonpublic information and market manipulation.
- Identify procedures for compliance with respect to material nonpublic information.

A.3: Demonstrate knowledge of Standard III: Duties to Clients.

Including:

- Interpret Standard III with respect to loyalty, prudence and care, fair dealing, suitability, performance presentation, and preservation of confidentiality.
- Identify procedures for compliance with respect to loyalty, prudence and care, fair dealing, suitability, performance presentation, and preservation of confidentiality.

A.4: Demonstrate knowledge of Standard IV: Duties to Employers.

Including:

- Interpret Standard IV with respect to loyalty, additional compensation arrangements, and responsibilities of supervisors.
- Identify procedures for compliance with respect to additional compensation arrangements, and responsibilities of supervisors.

A.5: Demonstrate knowledge of Standard V: Investments Analysis, Recommendations, and Actions.

Including:

- Interpret Standard V with respect to diligence and reasonable basis, communication with clients and prospective clients, and record retention.
- Identify procedures for compliance with respect to diligence and reasonable basis, communication with clients and prospective clients, and record retention.

A.6: Demonstrate knowledge of Standard VI: Conflicts of Interest.

Including:

- Interpret Standard VI with respect to disclosure of conflicts, priority of transactions, and referral fees.
- Identify procedures for compliance with respect to disclosure of conflicts, priority of transactions, and referral fees.

TOPIC 2

CAIA Association. CAIA Curriculum Level I Volume I. Self-published, CAIA Association, 2023.

Reading 2.1: What Is an Alternative Investment?

2.1.1: Demonstrate knowledge of various alternative investment types.

Including:

- Identify characteristics of institutional-quality investments.
- Describe real assets (i.e., commodities, real estate, intellectual property, and infrastructure), and distinguish real assets from financial assets.
- Describe hedge funds.
- Describe private equity (i.e., venture capital, growth equity, and leveraged buyouts).
- Describe private debt (e.g., direct lending, mezzanine debt, distressed debt, and collateralized debt obligations).

2.1.2: Demonstrate knowledge of the defining characteristics of alternative investments.

Including:

- Understand that the lines between traditional and alternative investments are not distinct and universal.
- Identify which categories of investments are generally qualified as traditional, generally qualified as alternative, and which can be placed under both.

2.1.3: Demonstrate knowledge of the history of alternative investments in the United States.

Including:

- Understand how assets typically held by institutional investors in the US have transformed over time.

2.1.4: Demonstrate knowledge of how alternative and traditional investments are distinguished by return characteristics.

Including:

- Understand the role of absolute return products as diversifiers.
- Define illiquidity.
- Discuss the advantages and risks of illiquid investments.
- Define efficiency and inefficiency.
- Understand the relationship of efficiency and inefficiency to competition and transaction costs.
- Explain normal and non-normal distributions and the structures that cause non-normality of returns.

2.1.5: Demonstrate knowledge of how alternative and traditional investments are distinguished by methods of analysis.

Including:

- Recognize return computation methods.
- Recognize statistical methods.
- Recognize valuation methods.
- Recognize portfolio management methods.

2.1.6: Demonstrate knowledge of other characteristics that distinguish alternative investments from traditional investments.

Including:

- Describe regulatory factors and their role in alternative investments.
- Define how cash flow claims can be partitioned.
- Describe trading securities and how they determine the investments' characteristics.
- Describe compensation structures within alternative investments and their implications.
- Discuss institutional factors and their implications in trading.
- Explain information asymmetries and their issues within financial analysis and portfolio management.
- Explain incomplete markets and their challenges.
- Understand the influences of innovation on alternative investments.

2.1.7: Demonstrate knowledge of the goals of alternative investing.

Including:

- Define active management.
- Contrast active management to passive investing.
- Understand the role of benchmarks in managing investments.
- Define active risk and active return.
- Describe the absolute and relative standards for evaluating returns.
- Describe the concept of arbitrage.
- Contrast pure arbitrage with arbitrage as an active absolute return strategy.
- Distinguish between the goal of return enhancement and return diversification in an investment program.

2.1.8: Demonstrate knowledge of the two pillars of alternative investment management.

Including:

- Understand how empirical analysis is used to determine which new types of assets to include in a portfolio.
- Understand how economic reasoning is used to determine which new types of assets to include in a portfolio.
- Describe how alternative investment categories can be placed within a 2x2 framework.

Reading 2.2: The Environment of Alternative Investments

2.2.1: Demonstrate knowledge of the participants in the alternative investing environment.

Including:

- Identify buy-side participants (e.g., plan sponsors and foundations).
- Describe the roles of buy-side participants in the alternative investing environment.
- Identify sell-side participants (e.g., large dealer banks and brokers).
- Describe the roles of sell-side participants in the alternative investing environment.
- Identify outside service providers (e.g., prime brokers and accountants).
- Describe the roles of outside service providers in the alternative investing environment.

2.2.2: Demonstrate knowledge of the legal structures in alternative investing.

Including:

- Describe the role of limited liability in passive investments.
- Explain the role of entities (i.e., limited liability companies, corporations), and their purposes in alternative investing.
- Describe limited partnership structures.
- Identify bankruptcy remote entities (e.g., special purpose vehicles, special purpose entities).
- Explain the difference in bankruptcy remote entities (e.g., special purpose vehicles, special purpose entities).
- Identify the structures of various entities (e.g., master-feeder funds, master trusts) that facilitate investor taxation differences.

2.2.3: Demonstrate knowledge of the key features of fund structures.

Including:

- Identify the four key documents (i.e., private-placement memoranda, partnership agreement, subscription agreement, management company operating agreement) used in establishing and maintaining a hedge fund, private equity fund, or other private partnerships.
- Explain the importance and components of a limited partners agreement.
- Explain moral hazard and adverse selection.
- Describe corporate governance in private funds.
- State components of investment objectives, fund size, and fund terms within an LPA.
- Explain the role of management fees and expenses in how investments are managed.
- Discuss global regulations (e.g., MiFID, MiFID II, AIFMD).
- Identify global fund structures (e.g., FIFs, SICAV, SICAF, ICAV).

2.2.4: Demonstrate knowledge of PE-style fund fees and terms.

Including:

- Discuss and calculate PE management fees and carried interest.
- Understand clawback provisions in PE.
- Calculate carried interest and hurdle rates as part of a PE deal.
- Explain perverse incentives that can originate from PE hurdle rates.
- Explain the GP's contribution to initial PE fund investment.
- Explain the key-person provision as part of the LP partnership clause.
- Explain termination and divorce of PE-style funds.
- Identify other covenants in PE-style funds.

2.2.5: Demonstrate knowledge of the financial markets involved in alternative investments. Including:

- Define primary capital markets and describe their roles in alternative investments.
- Define secondary capital markets and describe their roles in alternative investments.
- Define third, fourth, and private markets and describe their roles in alternative investments.

2.2.6: Demonstrate knowledge of the regulatory environment of alternative investments. Including:

- Discuss the common types of alternative investment fund regulations.

2.2.7: Demonstrate knowledge of short-selling processes and mechanics. Including:

- Explain the mechanics of institutional short selling.
- Explain the mechanics of short selling to the short seller.
- Identify special situations involving short selling.

Reading 2.3: Accessing Alternative Investments

2.3.1: Demonstrate knowledge of the two main fund structures used for alternative investment funds.

Including:

- Identify the primary characteristics of open-end (aka evergreen) fund structures.
- Identify the primary characteristics of drawdown (aka PE-style, closed-end) fund structures.
- Contrast open-end funds with drawdown funds.
- Explain the role of a high-water mark in an open-end fund structure.
- Identify the risks unique to PE and PE fund structures.
- Discuss fee differences between PE and hedge funds.

2.3.2: Demonstrate knowledge of liquid alternative investments.

Including:

- Define liquid alternative investments.
- Understand the spectrum of liquid alternative products.
- Identify the distinct types of alternative investments.
- Describe the factors driving the growth of liquid alternative investments.
- State the regulatory constraints that affect liquid alternative investments.
- State the main factors that contribute to the differences between the returns of private placement vehicles and those of alternative investments.

2.3.3: Demonstrate knowledge of the trend of LP preference for direct investment.

Including:

- Explain the different models of direct investment.
- Understand the drivers for direct investment.
- Identify the most common type of direct investment.

2.3.4: Demonstrate knowledge of co-investment.

Including:

- List the three alternative co-investing structures.
- Explain the basics of co-investing.
- Identify the investment processes for co-investing.
- Identify advantages of co-investing.
- Identify expected disadvantages of co-investing.

2.3.5: Demonstrate knowledge of the challenges in co-investing.

Including:

- Understand the challenges of co-investing from the LP perspective.
- Understand the challenges of co-investing from the GP perspective.

2.3.6: Demonstrate knowledge of observations regarding historical returns of co-investment.

Including:

- Interpret evidence on the performance track record of co-investment.
- Identify the specific capabilities that investors must develop to be successful in co-investments.
- Describe the impact that co-investing has on the private equity “J-curve.”

Reading 2.4: Quantitative Foundations

2.4.1: Demonstrate knowledge of return and rate mathematics.

Including:

- Distinguish simple from compound interest.
- Distinguish discrete from continuous compounding.

2.4.2: Demonstrate knowledge of the internal rate of return (IRR) approach to alternative investment analysis.

Including:

- Understand which alternative investments are likely to use IRR and why this approach may be more suitable than traditional performance metrics.
- Solve for the IRR given a series of cash flows and valuation.

2.4.3: Demonstrate knowledge of the problems associated with the internal rate of return (IRR).

Including:

- Discuss the effect of complex cash flow patterns on the computation and interpretation of IRRs.
- Explain challenges of comparing investments based on IRRs.
- Discuss the difficulties of aggregating IRRs.
- Explain the relationship between IRR and the reinvestment rate assumption.

2.4.4: Demonstrate knowledge of modified internal rate of return (IRR).

Including:

- Apply the modified internal rate of return approach.
- Identify advantages and disadvantages of modified internal rate of return.
- Evaluate time-weighted and dollar-weighted returns.

2.4.5: Demonstrate knowledge of other performance measures associated with illiquid investments.

Including:

- Apply three ratios that can be used as performance measures.
- Explain the Public Market Equivalent (PME) method.

2.4.6: Demonstrate knowledge of illiquidity, accounting conservatism, IRR, and the J-curve as they relate to the valuation of alternative investments.

Including:

- Identify how accounting conservatism relates to early fund losses.
- Identify the implication of accounting conservatism on deferred recognition of gains.
- Interpret the J-curve.

2.4.7: Demonstrate knowledge of the distribution of cash waterfall.

Including:

- Explain the distribution of the cash waterfall provision of a limited partnership agreement.
- Understand terminology associated with the cash waterfall provision (e.g., carried interest, hurdle rate, catch-up provision, vesting, clawback clause).
- Discuss factors (e.g., management fees, incentive-based fees) to consider in a fund's compensation structure and the potential effects of decisions regarding compensation

structure.

- Determine fund-as-a-whole carried interest and deal-by-deal carried interest.
- Calculate clawback provisions.
- Analyze hard and soft hurdle rates and their sequences of distribution.
- Discuss the potential effects of incentive fees on decision-making, and their option like nature.

2.4.8: Demonstrate knowledge of returns based on notional principal.

Including:

- Understand the challenge of calculating returns on positions with zero value.
- Define and apply the concepts of notional principal and full collateralization for forward contracts.
- Calculate the log return on a fully collateralized derivatives position.
- Calculate the log return on a partially collateralized derivatives position.

Reading 2.5: Statistical Foundations

2.5.1: Demonstrate knowledge of the characteristics of return distributions.

Including:

- Contrast ex ante and ex post return distributions.
- Understand the importance of the normal distribution in statistical analysis.
- Describe the characteristics of lognormal distributions.

2.5.2: Demonstrate knowledge of moments of return distributions (i.e., mean, variance, skewness, and kurtosis).

Including:

- Explain the first four moments of return distributions.
- Explain skewness of return distributions.
- Explain kurtosis and excess kurtosis of return distributions.
- Describe the characteristics of platykurtic, mesokurtic, and leptokurtic distributions.

2.5.3: Demonstrate knowledge of various measures of correlation of returns.

Including:

- Demonstrate the importance of correlation in alternative investment portfolio management.
- Define and calculate covariance.
- Define and calculate correlation coefficient.
- Define and calculate the Spearman rank correlation coefficient.
- Discuss the role of correlation in portfolio diversification.

2.5.4: Demonstrate knowledge of beta and autocorrelation.

Including:

- Define and calculate beta in the context of the CAPM.
- Define and calculate autocorrelation.
- Define and calculate higher-order autocorrelation.
- Define and apply the Durbin-Watson test.

2.5.5: Demonstrate knowledge of standard deviation (volatility) and variance.

Including:

- Explain standard deviation (volatility).
- Describe the properties of variance and standard deviation.
- Calculate variance and standard deviation.

2.5.6: Demonstrate knowledge of methods used to test for normality of distributions.

Including:

- Discuss the three main reasons for non-normality observed in alternative investment returns (i.e., autocorrelation, illiquidity, and nonlinearity) and the effect of each on returns.
- Discuss tests for normality that use sample moments.
- Apply the Jarque-Bera test.

Reading 2.6: Financial Economics Foundations

2.6.1: Demonstrate knowledge of the concept of informational market efficiency.

Including:

- Define informational market efficiency.
- Explain various forms of informational market efficiency, including efficient inefficiency.
- Identify factors driving informational market efficiency.
- Discuss the factors influencing informational efficiency in alternative asset markets.

2.6.2: Demonstrate knowledge of the time value of money, prices, and rates.

Including:

- Understand zero-coupon bonds and its present value function.
- Calculate interest rates from zero-coupon bond prices.
- Determine short-term interest rates using the Fisher equation.
- Estimate the term structure of interest rates with zero-coupon bonds.
- Understand how the bond pricing formula is used to calculate bond yields.
- Estimate (i.e., bootstrap) the term structure of interest rates with coupon bonds.

2.6.3: Demonstrate knowledge of forward interest rates.

Including:

- Define implied forward rates.
- Estimate implied forward rates using incremental cash flows.
- Calculate implied forward rates with annual compounding.
- Explain the term structure of implied forward rates.

2.6.4: Demonstrate knowledge of arbitrage-free financial models.

Including:

- Describe arbitrage-free models.
- State a key externality of arbitrage activities.
- Discuss applications of arbitrage-free models.
- Describe arbitrage-free pricing in spot markets.
- Describe hedged and unhedged carry trades.

2.6.5: Demonstrate knowledge of binomial tree models.

Including:

- Understand the mechanics of binomial trees.
- Explain the differences between a binomial tree and a recombining binomial tree.
- Solve for the value of a call option using a simplified binomial tree and stock prices.
- Explain risk-neutral models and when they are appropriate to employ.
- State the advantages of binomial tree models.

2.6.6: Demonstrate knowledge of single factor default-free bond models.

Including:

- Define traditional duration.
- Interpret duration in the case of a fixed coupon bond.
- Determine the duration for a bond portfolio.
- Describe how the duration of a long-only bond portfolio can be used to manage interest rate risk.
- Identify challenges and solutions for using duration when cash flows are stochastic.
- Discuss implications of floating vs. fixed rate duration.
- Assess implications of compounding conventions on modified duration.
- Explain duration as it relates to the longevity of a zero-coupon bond.
- Analyze hedging or immunizing a long-short portfolio with duration through time.
- Explain extensions to traditional duration.

2.6.7: Demonstrate knowledge of reduced form modeling of credit risk.

Including:

- Identify the difference between structural models and reduced-form models.
- Define the three factors that determine the expected credit loss of a credit exposure.
- Calculate expected credit loss.
- Describe two key characteristics of the risk-neutral modeling approach.
- Define risk-neutral probability.
- Apply the risk-neutral approach to pricing risky debt.
- Apply the risk-neutral approach to estimating credit spreads.
- Apply the reduced-form model to determine relative prices of securities.
- Explain what it means to calibrate a model.
- List the advantages and disadvantages of the reduced-form model.
- Contrast structural and reduced-form credit risk models.

2.6.8: Demonstrate knowledge of single factor equity pricing models.

Including:

- Define an asset pricing model.
- Apply a single-factor asset pricing model (e.g., the capital asset pricing model [CAPM]).
- Describe ex ante forms of the CAPM and their implications.
- Describe ex post forms of the CAPM and their applications.

2.6.9: Demonstrate knowledge of single-factor regression models.

Including:

- Explain the simple linear regression and single-factor market model.
- Explain the use of ordinary least squares to estimate regression parameters.
- Describe the problem outliers pose to regression analysis.
- Describe the problem autocorrelation poses to regression analysis.
- Describe the problem heteroskedasticity poses to regression analysis.
- Interpret a regression's goodness of fit.
- Apply the statistical significance of regression parameter estimates.

2.6.10: Demonstrate knowledge of statistical methods for locating alpha.

Including:

- Identify the four steps of hypothesis testing (i.e., state the hypothesis, formulate an analysis plan, analyze sample data, and interpret results).
- Discuss the error of accepting a hypothesis.
- Recognize the four common problems with using inferential statistics (i.e., misinterpretation of high p-values, failure to distinguish between statistical significance and economic significance, violation of distributional assumptions, and misinterpretation of level of confidence).
- Define and discuss type I and type II errors in hypothesis testing.
- Understand erroneous conclusions with statistical testing.

2.6.11: Demonstrate knowledge of sampling and testing problems.

Including:

- Identify the characteristics of unrepresentative data sets (e.g., selection bias, self-selection bias, survivorship bias) and their effects on test results.
- Discuss data mining and data dredging and recognize their effects on test results.
- Discuss backtesting and backfilling and recognize their effects on test results.
- Discuss cherry-picking and chumming and recognize their effects on test results.

Reading 2.7: Derivatives and Risk-Neutral Valuation

2.7.1: Demonstrate knowledge of forward and futures contracts.

Including:

- Describe the trading differences between forward and futures contracts.
- Apply the marking-to-market process for futures positions.
- Discuss the effect of marking-to-market on counterparty risk.
- Evaluate the effect of marking-to-market and the time value of money on risk and on prices.
- Analyze initial margin for futures positions.
- Analyze maintenance margin for futures positions.

2.7.2: Demonstrate knowledge of foundations of forward contracts.

Including:

- Describe the settlement and delivery processes of forward contracts.
- Understand the no-arbitrage approach to determining forward prices.
- Determine the forward contract price of a zero-coupon default-free bond.
- Analyze forward prices and expected spot prices under risk neutrality.
- Understand the relationship between forward prices and expected bond rates.

2.7.3: Demonstrate knowledge of the impacts of forward contracts on rates.

Including:

- Describe the forward rate agreement (FRA) process.
- Understand and apply the relationship between FRAs and implied forward interest rates.
- Explain forward rates and their extensions.

2.7.4: Demonstrate knowledge of the impact of forward contracts on assets with benefits and costs of carry.

Including:

- Discuss the benefits and costs of carrying (i.e., holding) a cash position and the incorporation of convenience yields and storage costs in cost of carry models.
- Calculate the forward price of a commodity.
- Discuss four factors that differentiate forward pricing on financial assets with those of physical assets.
- Understand challenges involving measuring storage costs and convenience yields.
- Discuss the difficulties of short-selling physical assets and the resulting implication to the formula for forward prices.
- Calculate forward contracts with non-zero market value.

2.7.5: Demonstrate knowledge of managing long-term futures exposures.

Including:

- Discuss futures contracts with different settlement dates.
- Understand how rollover decisions alter long-run returns.

2.7.6: Demonstrate knowledge of option exposures.

Including:

- Understand option risk exposure diagrams.
- Explain the key characteristics of long and short positions in an underlying asset.
- Understand the key characteristics of call and put exposures.
- State the key characteristics of protective put exposures.
- Discuss characteristics of option spreads (e.g., bull spreads, bear spreads, and ratio spreads).
- Understand the key characteristics of option combinations (e.g., straddles, strangles, and the concept of risk reversals).
- Apply the concepts of option collars and put-call parity.

2.7.7: Demonstrate knowledge of interest rate options.

Including:

- Describe an interest rate cap and calculate cap payments.
- Describe an interest rate floor and calculate floor payments.
- Discuss interest rate options and counter-party risk.

2.7.8: Demonstrate knowledge of interest rate swaps.

Including:

- Understand simple interest rate swaps.
- Identify payers and receivers of interest rate swaps.
- Explain how pensions use interest rate swaps.
- Understand the mechanics of interest rate swaps.
- Describe the initial valuation of an interest rate swap and calculate the expected payments of the swap.
- Understand how an existing swap is valued.
- Discuss risks in interest rate swaps.
- Discuss the global financial crisis of 2007-2009 in the context of swap risk.

2.7.9: Demonstrate knowledge of option pricing models.

Including:

- Understand the concept of an option on a portfolio.
- Understand the Black-Scholes call-option formula.
- Understand the Black forward option pricing model.
- Understand the currency option pricing model.

2.7.10: Demonstrate knowledge of option sensitivities.

Including:

- Explain the five most popular option sensitivities (i.e., delta, vega, theta, rho, and gamma).
- Describe option sensitivities such as omicron, lambda, and omega.
- Discuss the uses of option sensitivities in risk management.

Reading 2.8: Measures of Risk and Performance

2.8.1: Demonstrate knowledge of measures of risk.

Including:

- Define semivariance, semistandard deviation, downside deviation, semivolatility, and tracking error.
- Describe drawdown, shortfall risk, target semivariance, and target semistandard deviation.
- Calculate drawdown.
- Interpret value at risk (VaR) and conditional value-at-risk (CVaR).
- Discuss the strengths and weaknesses of VaR.

2.8.2: Demonstrate knowledge of methods for estimating value at risk (VaR).

Including:

- Apply a parametric approach to estimate VaR with normally distributed returns or with normally distributed underlying factors.
- Describe methods for estimating volatility as an input for VaR calculations.
- Describe methods for estimating VaR for leptokurtic positions.
- Describe methods for estimating VaR directly from historical data.
- Describe how the Monte Carlo analysis can be used to estimate VaR.
- Discuss and apply the aggregation of portfolio-component VaRs to determine the VaR for a portfolio under various assumptions (i.e., perfect correlation, zero correlation, and perfect negative correlation).

2.8.3: Demonstrate knowledge of benchmarking and portfolio attribution.

Including:

- Define benchmarking.
- Identify types of benchmarks.
- Discuss performance attribution.

2.8.4: Demonstrate knowledge of ratio-based performance measures used in alternative investment analysis.

Including:

- Describe the two major types of performance measures.
- Define Sharpe ratio, Treynor ratio, Sortino ratio, information ratio, and return on VaR.
- Discuss the properties in using the Sharpe ratio.
- Calculate Sharpe ratio, Treynor ratio, Sortino ratio, information ratio, and return on VaR.
- Discuss the properties in using the Treynor ratio.

2.8.5: Demonstrate knowledge of risk-adjusted performance measures used in alternative investment analysis.

Including:

- Define Jensen's Alpha and the M^2 (M-Squared) approach.
- Calculate Jensen's Alpha and the M^2 (M-Squared) approach.

2.8.6: Demonstrate knowledge of pricing and historic data analysis.

Including:

- Interpret models of stale prices.
- Describe the effect of stale pricing on historic mean returns and volatility.
- Calculate the effect of stale pricing on historic mean returns and volatility.

2.8.7: Demonstrate knowledge of valuation and volatility of private assets.

Including:

- Discuss the smoothing of prices and returns.
- Determine the effect of smoothing on observed volatility.
- Identify the primary ways that returns can be managed.
- Discuss how appraisals contribute to smoothing of private asset prices.
- Compare smoothed returns with market returns.

Reading 2.9: Alpha, Beta, and Hypothesis Testing

2.9.1: Demonstrate knowledge of beta and alpha.

Including:

- Understand the role of beta in the analysis of traditional and alternative investments.
- Understand the role of alpha in the analysis of traditional and alternative investments.

2.9.2: Demonstrate knowledge of return drivers.

Including:

- Discuss the classification of assets into beta drivers and alpha drivers.
- Discuss the characteristics of beta drivers and their behavior over time.
- Discuss passive beta drivers as pure plays on beta.
- Discuss the characteristics of alpha drivers.
- Discuss product innovators and process drivers.

2.9.3: Demonstrate knowledge of empirical approaches in estimating alpha.

Including:

- Identify the steps involved in estimating alpha from historical performance.
- Discuss how an experiment of a fair casino game can illustrate the challenges to empirical analysis of manager skill.

2.9.4: Demonstrate knowledge of alpha estimation and return persistence.

Including:

- Define abnormal return persistence.
- Discuss attribution of idiosyncratic returns to luck or skill.
- Interpret estimated return persistence.

2.9.5: Demonstrate knowledge of return attribution.

Including:

- Calculate beta, forecasted alpha, and realized alpha.
- Discuss the three primary types of model misspecification (i.e., omitted systematic return factors, misestimated betas, and nonlinear risk-return relationships) and their effects on return attribution.
- Describe various types of beta nonstationarity (i.e., beta creep, beta expansion, and market timing) and their effects on return attribution.
- Discuss how alpha and beta can become commingled.

2.9.6: Demonstrate knowledge of statistical issues in analyzing alpha and beta.

Including:

- Understand the effect of non-normality on the cross-sectional search for alpha.
- Identify the potential effects of outliers on reported results.
- Describe issues involving biased testing in the search for alpha.
- Discuss the challenges of spurious correlation and causality in beta estimation.
- Explain three major fallacies of alpha estimation and two major fallacies of beta estimation and the lessons that arise from them.

The following is a review of the Professional Standards and Ethics principles designed to address the learning objectives set forth by CAIA Association®. Cross-reference to CAIA Association Reading 1.1.

READING 1.1

CFA INSTITUTE STANDARDS OF PRACTICE

Topic 1

EXAM FOCUS

This reading begins with a brief introduction to the Standards of Professional Conduct and then focuses on Standards I through VI from the *Standards of Practice Handbook*.¹ Standards I and II encompass ethical responsibilities related to professionalism and integrity of capital markets. Provisions include Knowledge of the Law, Independence and Objectivity, Misrepresentation, Misconduct, Material Nonpublic Information, and Market Manipulation. Standards III and IV encompass ethical responsibilities related to duties to clients and prospective clients and duties to employers. Provisions include Loyalty, Prudence, and Care; Fair Dealing; Suitability; Performance Presentation; Loyalty; Preservation of Confidentiality; Additional Compensation Arrangements; and Responsibilities of Supervisors. Standards V and VI encompass ethical responsibilities related to investment analysis, recommendations, and action and conflicts of interest. Provisions include Diligence and Reasonable Basis, Communication With Clients and Prospective Clients, Record Retention, Disclosure of Conflicts, Priority of Transactions, and Referral Fees.

STANDARDS OF PROFESSIONAL CONDUCT

For the CAIA exam, you should understand the first six Standards of Professional Conduct:

- I. Professionalism
- II. Integrity of Capital Markets
- III. Duties to Clients
- IV. Duties to Employers
- V. Investment Analysis, Recommendations, and Actions
- VI. Conflicts of Interest

Each Standard contains multiple provisions for which the candidate is responsible. The candidate should be able to identify the ethical responsibilities required by the Standards.

I. PROFESSIONALISM

- A. **Knowledge of the Law.** Members and Candidates must understand and comply with all applicable laws, rules, and regulations (including the CFA Institute Code of Ethics and Standards of Professional Conduct) of any government, regulatory organization, licensing agency, or professional association governing their professional activities. In the event of conflict, Members and Candidates must comply with the more strict law, rule, or regulation. Members and Candidates must not knowingly participate or assist in and must dissociate from any violation of such laws, rules, or regulations.
- B. **Independence and Objectivity.** Members and Candidates must use reasonable care and judgment to achieve and maintain independence and objectivity in their professional activities. Members and Candidates must not offer, solicit, or accept any gift, benefit, compensation, or consideration that reasonably could be expected to compromise their own or another's independence and objectivity.
- C. **Misrepresentation.** Members and Candidates must not knowingly make any misrepresentations relating to investment analysis, recommendations, actions, or other professional activities.
- D. **Misconduct.** Members and Candidates must not engage in any professional conduct involving dishonesty, fraud, or deceit or commit any act that reflects adversely on their professional reputation, integrity, or competence.

II. INTEGRITY OF CAPITAL MARKETS

- A. **Material Nonpublic Information.** Members and Candidates who possess material nonpublic information that could affect the value of an investment must not act or cause others to act on the information.
- B. **Market Manipulation.** Members and Candidates must not engage in practices that distort prices or artificially inflate trading volume with the intent to mislead market participants.

III. DUTIES TO CLIENTS

- A. **Loyalty, Prudence, and Care.** Members and Candidates have a duty of loyalty to their clients and must act with reasonable care and exercise prudent judgment. Members and Candidates must act for the benefit of their clients and place their clients' interests before their employer's or their own interests.
- B. **Fair Dealing.** Members and Candidates must deal fairly and objectively with all clients when providing investment analysis, making investment recommendations, taking investment action, or engaging in other professional activities.
- C. **Suitability.**
 - 1. When Members and Candidates are in an advisory relationship with a client, they must:
 - a. Make a reasonable inquiry into the client's or prospective client's investment experience, risk and return objectives, and financial constraints prior to making any investment recommendation or taking investment action and must reassess and update this information regularly.
 - b. Determine that an investment is suitable to the client's financial situation and consistent with the client's written objectives, mandates, and constraints before making an investment recommendation or taking investment action.
 - c. Judge the suitability of investments in the context of the client's total portfolio.
 - 2. When Members and Candidates are responsible for managing a portfolio to a specific mandate, strategy, or style, they must make only investment recommendations or take only investment actions that are consistent with the stated objectives and constraints of the portfolio.
- D. **Performance Presentation.** When communicating investment performance information, Members and Candidates must make reasonable efforts to ensure it is fair, accurate, and complete.

E. Preservation of Confidentiality. Members and Candidates must keep information about current, former, and prospective clients confidential unless:

1. The information concerns illegal activities on the part of the client or prospective client,
2. Disclosure is required by law, or
3. The client or prospective client permits disclosure of the information.

IV. DUTIES TO EMPLOYERS

A. Loyalty. In matters related to their employment, Members and Candidates must act for the benefit of their employer and not deprive their employer of the advantage of their skills and abilities, divulge confidential information, or otherwise cause harm to their employer.

B. Additional Compensation Arrangements. Members and Candidates must not accept gifts, benefits, compensation, or consideration that competes with, or might reasonably be expected to create a conflict of interest with, their employer's interest unless they obtain written consent from all parties involved.

C. Responsibilities of Supervisors. Members and Candidates must make reasonable efforts to ensure that anyone subject to their supervision or authority complies with applicable laws, rules, regulations, and the Code and Standards.

V. INVESTMENT ANALYSIS, RECOMMENDATIONS, AND ACTIONS

A. Diligence and Reasonable Basis. Members and Candidates must:

1. Exercise diligence, independence, and thoroughness in analyzing investments, making investment recommendations, and taking investment actions.
2. Have a reasonable and adequate basis, supported by appropriate research and investigation, for any investment analysis, recommendation, or action.

B. Communication With Clients and Prospective Clients. Members and Candidates must:

1. Disclose to clients and prospective clients the basic format and general principles of the investment processes used to analyze investments, select securities, and construct portfolios and must promptly disclose any changes that might materially affect those processes.
2. Disclose to clients and prospective clients significant limitations and risks associated with the investment process.
3. Use reasonable judgment in identifying which factors are important to their investment analyses, recommendations, or actions and include those factors in communications with clients and prospective clients.
4. Distinguish between fact and opinion in the presentation of investment analysis and recommendations.

C. Record Retention. Members and Candidates must develop and maintain appropriate records to support their investment analyses, recommendations, actions, and other investment-related communications with clients and prospective clients.

VI. CONFLICTS OF INTEREST

A. Disclosure of Conflicts. Members and Candidates must make full and fair disclosure of all matters that could reasonably be expected to impair their independence and objectivity or interfere with respective duties to their clients, prospective clients, and employer. Members and Candidates must ensure that such disclosures are prominent, delivered in plain language, and communicate the relevant information effectively.

B. Priority of Transactions. Investment transactions for clients and employers must have priority over investment transactions in which a Member or Candidate is the beneficial owner.

C. Referral Fees. Members and Candidates must disclose to their employer, clients, and prospective clients, as appropriate, any compensation, consideration, or benefit received from or paid to others for the recommendation of products or services.

I. PROFESSIONALISM

LO A.1: Demonstrate knowledge of Standard I: Professionalism.

Including:

- Interpret Standard I with respect to knowledge of the law, independence and objectivity, misrepresentation, and misconduct.
 - Identify procedures for compliance with respect to knowledge of the law, independence and objectivity, misrepresentation, and misconduct.
-



PROFESSOR'S NOTE

While we use the term “members” in the following, note that all the Standards apply to candidates as well.

I(A) Knowledge of the Law

Members and Candidates must understand and comply with all applicable laws, rules, and regulations (including the CFA Institute Code of Ethics and Standards of Professional Conduct) of any government, regulatory organization, licensing agency, or professional association governing their professional activities. In the event of conflict, Members and Candidates must comply with the more strict law, rule, or regulation. Members and Candidates must not knowingly participate or assist in and must dissociate from any violation of such laws, rules, or regulations.

Guidance—Standards vs. Local Law

Members must know the laws and regulations relating to their professional activities in all countries in which they conduct business. Members must comply with applicable laws and regulations relating to their professional activity. Always adhere to the most strict rules and requirements (law or CFA Institute Standards) that apply (i.e., do not violate Standards even if the activity is otherwise legal).

Guidance—Participation or Association With Violations by Others

Members should disassociate, or separate themselves, from any ongoing client, employer, or employee activity that is illegal or unethical, even if it involves leaving an employer (an extreme case). While a member may first confront the involved individual, he must approach his supervisor or compliance department. Inaction with continued association may be construed as knowing participation.

Recommended Procedures for Compliance—Members

- Members should have procedures to keep up with changes in applicable laws, rules, and regulations.
- Compliance procedures should be reviewed on an ongoing basis to ensure that they abide by current laws, CFA Institute Standards, and regulations.
- Members should maintain current reference materials for employees to access in order to keep up to date on laws, rules, and regulations.
- Members should seek advice of counsel or their compliance department when in doubt.

- Members should document any violations when they disassociate themselves from prohibited activity and encourage their employers to bring an end to such activity.
- There is no requirement under the Standards to report violations to governmental authorities, but this may be advisable in some circumstances and required by law in others.
- Members are strongly encouraged to report other members' violations of the Code and Standards.

Recommended Procedures for Compliance—Firms

Members should encourage their firms to do all of the following:

- Develop and/or adopt a code of ethics.
- Make available to employees information that highlights applicable laws and regulations.
- Establish written procedures for reporting suspected violations of laws, regulations, or company policies.

Members who supervise the creation and maintenance of investment services and products should be aware of and comply with the regulations and laws regarding such services and products both in their country of origin and the countries where they will be sold.

Application of Standard I(A) Knowledge of the Law²

Example 1:

Michael Allen works for a brokerage firm and is responsible for an underwriting of securities. A company official gives Allen information indicating that the financial statements Allen filed with the regulator overstate the issuer's earnings. Allen seeks the advice of the brokerage firm's general counsel, who states that it would be difficult for the regulator to prove that Allen has been involved in any wrongdoing.

Comment:

Although it is recommended that members and candidates seek the advice of legal counsel, the reliance on such advice does not absolve a member or candidate from the requirement to comply with the law or regulation. Allen should report this situation to his supervisor, seek an independent legal opinion, and determine whether the regulator should be notified of the error.

Example 2:

Kamisha Washington's firm advertises its past performance record by showing the 10-year return of a composite of its client accounts. Washington discovers, however, that the composite omits the performance of accounts that have left the firm during the 10-year period, whereas the description of the composite indicates the inclusion of all firm accounts. This omission has led to an inflated performance figure. Washington is asked to use promotional material that includes the erroneous performance number when soliciting business for the firm.

Comment:

Misrepresenting performance is a violation of the Standards. Although she did not calculate the performance herself, Washington would be assisting in violating this standard if she were to use the inflated performance number when soliciting clients. She must dissociate herself from the activity. If discussing the misleading number with the person responsible is not an option for correcting the problem, she can bring the situation to the attention of her supervisor or the compliance department at her firm. If her firm is unwilling to recalculate performance, she must refrain from using the misleading promotional material and should notify the firm of her reasons. If the firm insists that she use the material, she should consider whether her obligation to dissociate from the activity would require her to seek other employment.

Example 3:

Laura Jameson, a U.S. citizen, works for an investment advisor based in the United States and works in a country where investment managers are prohibited from participating in IPOs for their own accounts.

Comment:

Jameson must comply with the strictest requirements among U.S. law (where her firm is based), the CFA Institute Code and Standards, and the laws of the country where she is doing business. In this case that means she must not participate in any IPOs for her personal account.

I(B) Independence and Objectivity

Members and Candidates must use reasonable care and judgment to achieve and maintain independence and objectivity in their professional activities. Members and Candidates must not offer, solicit, or accept any gift, benefit, compensation, or consideration that reasonably could be expected to compromise their own or another's independence and objectivity.

Guidance

Do not let the investment process be influenced by any external sources. Modest gifts are permitted. Allocation of shares in oversubscribed IPOs to personal accounts is *not* permitted. Distinguish between gifts from clients and gifts from entities seeking influence to the detriment of the client. Gifts must be disclosed to the member's employer in any case, either before acceptance if possible, or subsequently.

Guidance—Investment-Banking Relationships

Do not be pressured by sell-side firms to issue favorable research on current or prospective investment-banking clients. It is appropriate to have analysts work with investment bankers in "road shows" only when the conflicts are adequately and effectively managed and disclosed. Be sure there are effective "firewalls" between research/investment management and investment-banking activities.

Guidance—Public Companies

Analysts should not be pressured to issue favorable research by the companies they follow. Do not confine research to discussions with company management, but

rather use a variety of sources, including suppliers, customers, and competitors.

Guidance—Buy-Side Clients

Buy-side clients may try to pressure sell-side analysts. Portfolio managers may have large positions in a particular security, and a rating downgrade may have an effect on the portfolio performance. Portfolio managers have a responsibility to respect and foster the intellectual honesty of sell-side research.

Guidance—Fund Manager and Custodial Relationships

Members responsible for selecting outside managers should not accept gifts, entertainment, or travel that might be perceived as impairing their objectivity.

Guidance—Performance Measurement and Attribution

Performance analysts may experience pressure from investment managers who have produced poor results or acted outside their mandate. Members and candidates who analyze performance must not let such influences affect their analysis.

Guidance—Manager Selection

Members and candidates must exercise independence and objectivity when they select investment managers. They should not accept gifts or other compensation that could be seen as influencing their hiring decisions, nor should they offer compensation when seeking to be hired as investment managers. The responsibility to maintain independence and objectivity applies to all of a member's or candidate's hiring and firing decisions, not just those that involve investment management.

Guidance—Credit Rating Agencies

Members employed by credit rating firms should make sure that procedures prevent undue influence by the firm issuing the securities. Members who use credit ratings should be aware of this potential conflict of interest and consider whether independent analysis is warranted.

Guidance—Issuer-Paid Research

This type of research is fraught with potential conflicts. Analysts' compensation for preparing such research should be limited, and the preference is for a flat fee, without regard to conclusions or the report's recommendations.

Guidance—Travel

Best practice is for analysts to pay for their own commercial travel when attending information events or tours sponsored by the firm being analyzed.

Recommended Procedures for Compliance

- Protect the integrity of opinions—make sure they are unbiased.
- Create a restricted list and distribute only factual information about companies on the list.
- Restrict special cost arrangements—pay for one's own commercial transportation and hotel; limit use of corporate aircraft to cases in which commercial transportation is not available.

- Limit gifts—token items only. Customary, business-related entertainment is okay as long as its purpose is not to influence a member’s professional independence or objectivity. Firms should impose clear value limits on gifts.
- Restrict employee investments in equity IPOs and private placements. Require preapproval of IPO purchases.
- Review procedures—have effective supervisory and review procedures.
- Firms should have formal written policies on independence and objectivity of research.
- Firms should appoint a compliance officer and provide clear procedures for employee reporting of unethical behavior and violations of applicable regulations.

Application of Standard I(B) Independence and Objectivity³

Example 1:

Steven Taylor, a mining analyst with Bronson Brokers, is invited by Precision Metals to join a group of his peers in a tour of mining facilities in several western U.S. states. The company arranges for chartered group flights from site to site and for accommodations in Spartan Motels, the only chain with accommodations near the mines, for three nights. Taylor allows Precision Metals to pick up his tab, as do the other analysts, with one exception—John Adams, an employee of a large trust company who insists on following his company’s policy and paying for his hotel room himself.

Comment:

The policy of the company where Adams works complies closely with Standard I(B) by avoiding even the appearance of a conflict of interest, but Taylor and the other analysts were not necessarily violating Standard I(B). In general, when allowing companies to pay for travel and/or accommodations under these circumstances, members and candidates must use their judgment, keeping in mind that such arrangements must not impinge upon a member or candidate’s independence and objectivity. In this example, the trip was strictly for business, and Taylor was not accepting unnecessary or lavish hospitality. The itinerary required chartered flights, for which analysts were not expected to pay. The accommodations were modest. These arrangements are not unusual and did not violate Standard I(B) as long as Taylor’s independence and objectivity were not compromised. In the final analysis, members and candidates should consider both whether they can remain objective and whether their integrity might be perceived by their clients to have been compromised.

Example 2:

Walter Fritz is an equity analyst with Hilton Brokerage who covers the mining industry. He has concluded that the stock of Metals & Mining is overpriced at its current level, but he is concerned that a negative research report will hurt the good relationship between Metals & Mining and the investment-banking division of his firm. In fact, a senior manager of Hilton Brokerage has just sent him a copy of a proposal his firm has made to Metals & Mining to underwrite a debt offering. Fritz needs to produce a report right away and is concerned about issuing a less-than-favorable rating.

Comment:

Fritz's analysis of Metals & Mining must be objective and based solely on consideration of company fundamentals. Any pressure from other divisions of his firm is inappropriate. This conflict could have been eliminated if, in anticipation of the offering, Hilton Brokerage had placed Metals & Mining on a restricted list for its sales force.

Example 3:

Tom Wayne is the investment manager of the Franklin City Employees Pension Plan. He recently completed a successful search for firms to manage the foreign equity allocation of the plan's diversified portfolio. He followed the plan's standard procedure of seeking presentations from a number of qualified firms and recommended that his board select Penguin Advisors because of its experience, well-defined investment strategy, and performance record.

The firm claims compliance with the Global Investment Performance Standards (GIPS) and has been verified. Following the selection of Penguin, a reporter from the *Franklin City Record* calls to ask if there was any connection between this action and the fact that Penguin was one of the sponsors of an "investment fact-finding trip to Asia" that Wayne made earlier in the year. The trip was one of several conducted by the Pension Investment Academy, which had arranged the itinerary of meetings with economic, government, and corporate officials in major cities in several Asian countries. The Pension Investment Academy obtains support for the cost of these trips from a number of investment managers, including Penguin Advisors; the Academy then pays the travel expenses of the various pension plan managers on the trip and provides all meals and accommodations. The president of Penguin Advisors was also one of the travelers on the trip.

Comment:

Although Wayne can probably put to good use the knowledge he gained from the trip in selecting portfolio managers and in other areas of managing the pension plan, his recommendation of Penguin Advisors may be tainted by the possible conflict incurred when he participated in a trip partly paid for by Penguin Advisors and when he was in the daily company of the president of Penguin Advisors. To avoid violating Standard I(B), Wayne's basic expenses for travel and accommodations should have been paid by his employer or the pension plan; contact with the president of Penguin Advisors should have been limited to informational or educational events only; and the trip, the organizer, and the sponsor should have been made a matter of public record. Even if his actions were not in violation of Standard I(B), Wayne should have been sensitive to the public perception of the trip when reported in the newspaper and the extent to which the subjective elements of his decision might have been affected by the familiarity that the daily contact of such a trip would encourage. This advantage would probably not be shared by firms competing with Penguin Advisors.

Example 4:

An employee's boss tells him to assume coverage of a stock and maintain a buy rating.

Comment:

Research opinions and recommendations must be objective and arrived at independently. Following the boss's instructions would be a violation if the analyst determined a buy rating is inappropriate.

Example 5:

A money manager receives a gift of significant value from a client as a reward for good performance over the prior period and informs her employer of the gift.

Comment:

No violation here because the gift is from a client and is not based on performance going forward, but the gift must be disclosed to her employer. If the gift were contingent on future performance, the money manager would have to obtain permission from her employer. The reason for both the disclosure and permission requirements is that the employer must ensure that the money manager does not give advantage to the client giving or offering additional compensation, to the detriment of other clients.

Example 6:

A member whose firm is seeking to become an investment manager for a labor union contributes a large sum to the union leader's re-election campaign. After the union hires the member's firm, the member continues to spend significant amounts on entertainment for the union leader and his family.

Comment:

Offering gifts or other compensation to influence a decision to hire an investment manager is a violation of Standard I(B).

Example 7:

A member who is a performance analyst notices that one of her firm's top investment managers has changed his composite construction, removing a poorly performing large account and placing it in a different composite. Knowing that the investment manager is important to the firm and a close friend of the firm's CEO, the member does not disclose this change in her performance report.

Comment:

The member violated Standard I(B) by failing to exercise independence and objectivity in her analysis. Altering composites to conceal poor performance also violates Standard III(D) Performance Presentation and may violate Standard I(C) Misrepresentation.

I(C) Misrepresentation

Members and Candidates must not knowingly make any misrepresentations relating to investment analysis, recommendations, actions, or other professional activities.

Guidance

Trust is a foundation in the investment profession. Do not make any misrepresentations or give false impressions. This includes oral, electronic, and

social media communications. Misrepresentations include guaranteeing investment performance and plagiarism. Plagiarism encompasses using someone else's work (reports, forecasts, charts, graphs, and spreadsheet models) without giving them credit. Knowingly omitting information that could affect an investment decision is considered misrepresentation.

Models and analysis developed by others at a member's firm are the property of the firm and can be used without attribution. A report written by another analyst employed by the firm cannot be released as another analyst's work.

Recommended Procedures for Compliance

Firms can avoid misrepresentation by providing employees who deal with clients or prospects with a written list of the firm's available services and a description of the firm's qualifications. Employee qualifications should also be accurately presented. To avoid plagiarism, maintain records of all materials used to generate reports or other firm products and properly cite sources (quotes and summaries) in work products. Information from recognized financial and statistical reporting services need not be cited.

Members should encourage their firms to establish procedures for verifying marketing claims of third parties whose information the firm provides to clients.

Application of Standard I(C) Misrepresentation⁴

Example 1:

Anthony McGuire is an issuer-paid analyst hired by publicly traded companies to electronically promote their stocks. McGuire creates a website that promotes his research efforts as a seemingly independent analyst. McGuire posts a profile and a strong buy recommendation for each company on the website indicating that the stock is expected to increase in value. He does not disclose the contractual relationships with the companies he covers on his website, in the research reports he issues, or in the statements he makes about the companies in internet chat rooms.

Comment:

McGuire has violated Standard I(C) because the internet site is misleading to potential investors. Even if the recommendations are valid and supported with thorough research, his omissions regarding the true relationship between himself and the companies he covers constitute a misrepresentation. McGuire has also violated Standard VI(A): Disclosure of Conflicts by not disclosing the existence of an arrangement with the companies through which he receives compensation in exchange for his services.

Example 2:

Claude Browning, a quantitative analyst for Double Alpha, Inc., returns in great excitement from a seminar. In that seminar, Jack Jorrely, a well-publicized quantitative analyst at a national brokerage firm, discussed one of his new models in great detail, and Browning is intrigued by the new concepts. He proceeds to test the model, making some minor mechanical changes but retaining the concepts, until he produces some very positive results. Browning quickly announces to his supervisors at Double Alpha that he has discovered a new model and that clients and

prospective clients should be informed of this positive finding as ongoing proof of Double Alpha's continuing innovation and ability to add value.

Comment:

Although Browning tested Jorrelly's model on his own and even slightly modified it, he must still acknowledge the original source of the idea. Browning can certainly take credit for the final, practical results; he can also support his conclusions with his own test. The credit for the innovative thinking, however, must be awarded to Jorrelly.

Example 3:

Paul Ostrowski runs a two-person investment management firm. Ostrowski's firm subscribes to a service from a large investment research firm that provides research reports that can be repackaged by smaller firms for those firms' clients. Ostrowski's firm distributes these reports to clients as original work.

Comment:

Ostrowski can rely on third-party research that has a reasonable and adequate basis, but he cannot imply that he is the author of the report. Otherwise, Ostrowski would misrepresent the extent of his work in a way that would mislead the firm's clients or prospective clients.

Example 4:

A member describes an interest-only collateralized mortgage obligation as guaranteed by the U.S. government because it is a claim against the cash flows of a pool of guaranteed mortgages, although the payment stream and the market value of the security are not guaranteed.

Comment:

This is a violation because of the misrepresentation.

Example 5:

A candidate reads about a research paper in a financial publication and includes the information in a research report, citing the original research report but not the financial publication.

Comment:

To the extent that the candidate used information and interpretation from the financial publication without citing it, the candidate is in violation of the Standard. The candidate should either obtain the report and reference it directly or, if he relies solely on the financial publication, should cite both sources.

I(D) Misconduct

Members and Candidates must not engage in any professional conduct involving dishonesty, fraud, or deceit or commit any act that reflects adversely on their professional reputation, integrity, or competence.

Guidance

CFA Institute discourages unethical behavior in all aspects of members' and candidates' lives. Do not abuse CFA Institute's Professional Conduct Program by seeking enforcement of this Standard to settle personal, political, or other disputes that are not related to professional ethics.

Recommended Procedures for Compliance

Firms are encouraged to adopt these policies and procedures:

- Develop and adopt a code of ethics and make clear that unethical behavior will not be tolerated.
- Give employees a list of potential violations and sanctions, including dismissal.
- Check references of potential employees.

Application of Standard I(D) Misconduct⁵

Example 1:

Simon Sasserman is a trust investment officer at a bank in a small affluent town. He enjoys lunching every day with friends at the country club, where his clients have observed him having numerous drinks. Back at work after lunch, he clearly is intoxicated while making investment decisions. His colleagues make a point of handling any business with Sasserman in the morning because they distrust his judgment after lunch.

Comment:

Sasserman's excessive drinking at lunch and subsequent intoxication at work constitute a violation of Standard I(D) because this conduct has raised questions about his professionalism and competence. His behavior thus reflects poorly on him, his employer, and the investment industry.

Example 2:

Carmen Garcia manages a mutual fund dedicated to socially responsible investing. She is also an environmental activist. As the result of her participation in nonviolent protests, Garcia has been arrested on numerous occasions for trespassing on the property of a large petrochemical plant that is accused of damaging the environment.

Comment:

Generally, Standard I(D) is not meant to cover legal transgressions resulting from acts of civil disobedience in support of personal beliefs because such conduct does not reflect poorly on the member or candidate's professional reputation, integrity, or competence.

Example 3:

A member tells a client that he can get her a good deal on a car through his father-in-law, but instead gets her a poor deal and accepts part of the commission on the car purchase.

Comment:

The member has been dishonest and misrepresented the facts of the situation and has, therefore, violated the Standard.

II. INTEGRITY OF CAPITAL MARKETS

LO A.2: Demonstrate knowledge of Standard II: Integrity of Capital Markets.

Including:

- **Interpret Standard II with respect to material nonpublic information and market manipulation.**
 - **Identify procedures for compliance with respect to material nonpublic information.**
-

II(A) Material Nonpublic Information

Members and Candidates who possess material nonpublic information that could affect the value of an investment must not act or cause others to act on the information.

Guidance

Information is “material” if its disclosure would impact the price of a security or if reasonable investors would want the information before making an investment decision. Ambiguous information, as far as its likely effect on price, may not be considered material. Information is “nonpublic” until it has been made available to the marketplace. An analyst conference call is not public disclosure. Selectively disclosing information by corporations creates the potential for insider-trading violations. The prohibition against acting on material nonpublic information extends to mutual funds containing the subject securities, as well as related swaps and options contracts.

Some members and candidates may be involved in transactions during which they receive material nonpublic information provided by firms (e.g., investment-banking transactions). Members and candidates may use the provided nonpublic information for its intended purpose but must not use the information for any other purpose unless it becomes public information.

Guidance—Mosaic Theory

There is no violation when a perceptive analyst reaches an investment conclusion about a corporate action or event through an analysis of public information together with items of nonmaterial, nonpublic information.

Guidance—Social Media

When gathering information from internet or social media sources, members and candidates need to be aware that not all of it is considered public information. Members and candidates should confirm that any material information they receive from these sources is also available from public sources, such as company press releases or regulatory filings.

Guidance—Industry Experts

Members and candidates may seek insight from individuals who have specialized expertise in an industry. However, they may not act or cause others to act on any

material nonpublic information obtained from these experts until that information has been publicly disseminated.

Recommended Procedures for Compliance

Make reasonable efforts to achieve public dissemination of the information. Encourage firms to adopt procedures to prevent misuse of material nonpublic information. Use a “firewall” within the firm, with elements including the following:

- Substantially control relevant interdepartmental communications, through a clearance area such as the compliance or legal department.
- Review employee trades—maintain “watch,” “restricted,” and “rumor” lists.
- Monitor and restrict proprietary trading while a firm is in possession of material nonpublic information.

Prohibition of all proprietary trading while a firm is in possession of material nonpublic information may be inappropriate because it may send a signal to the market. In these cases, firms should only take the contra side of unsolicited customer trades.

Application of Standard II(A) Material Nonpublic Information⁶

Example 1:

Samuel Peter, an analyst with Scotland and Pierce Incorporated, is assisting his firm with a secondary offering for Bright Ideas Lamp Company. Peter participates, via telephone conference call, in a meeting with Scotland and Pierce investment-banking employees and Bright Ideas’ CEO. Peter is advised that the company’s earnings projections for the next year have significantly dropped. Throughout the telephone conference call, several Scotland and Pierce salespeople and portfolio managers walk in and out of Peter’s office, where the telephone call is taking place. As a result, they are aware of the drop in projected earnings for Bright Ideas. Before the conference call is concluded, the salespeople trade the stock of the company on behalf of the firm’s clients, and other firm personnel trade the stock in a firm proprietary account and in employee personal accounts.

Comment:

Peter violated Standard II(A) because he failed to prevent the transfer and misuse of material nonpublic information to others in his firm. Peter’s firm should have adopted information barriers to prevent the communication of nonpublic information between departments of the firm. The salespeople and portfolio managers who traded on the information have also violated Standard II(A) by trading on inside information.

Example 2:

Elizabeth Levenson is based in Taipei and covers the Taiwanese market for her firm, which is based in Singapore. She is invited, together with the other 10 largest shareholders of a manufacturing company, to meet the finance director of that company. During the meeting, the finance director states that the company expects its workforce to strike next Friday, which will cripple productivity and distribution.

Can Levenson use this information as a basis to change her rating on the company from “buy” to “sell”?

Comment:

Levenson must first determine whether the material information is public. If the company has not made this information public (a small group forum does not qualify as a method of public dissemination), she cannot use the information.

Example 3:

Jagdish Teja is a buy-side analyst covering the furniture industry. Looking for an attractive company to recommend as a buy, he analyzes several furniture makers by studying their financial reports and visiting their operations. He also talks to some designers and retailers to find out which furniture styles are trendy and popular. Although none of the companies that he analyzes are a clear buy, he discovers that one of them, Swan Furniture Company (SFC), may be in trouble financially. Swan’s extravagant new designs have been introduced at substantial cost. Even though these designs initially attracted attention, in the long run, the public is buying more conservative furniture from other makers. Based on this information and on a profit-and-loss analysis, Teja believes that Swan’s next quarter’s earnings will drop substantially. He issues a sell recommendation for SFC. Immediately after receiving that recommendation, investment managers start reducing the SFC stock in their portfolios.

Comment:

Information on quarterly earnings figures is material and nonpublic. Teja arrived at his conclusion about the earnings drop based on public information and on pieces of nonmaterial nonpublic information (such as opinions of designers and retailers). Therefore, trading based on Teja’s correct conclusion is not prohibited by Standard II(A).

Example 4:

A member received an advance copy of a stock recommendation that will appear in a widely read national newspaper column the next day and purchases the stock.

Comment:

A recommendation in a widely read newspaper column will likely cause the stock price to rise, so this is material nonpublic information. The member has violated the Standard.

Example 5:

A member trades based on information he gets by seeing an advance copy of an article that will be published in an influential magazine next week.

Comment:

This is a violation as this is material nonpublic information until the article has been published.

II(B) Market Manipulation

Members and Candidates must not engage in practices that distort prices or artificially inflate trading volume with the intent to mislead market participants.

Guidance

This Standard applies to transactions that deceive the market by distorting the price-setting mechanism of financial instruments or by securing a controlling position to manipulate the price of a related derivative and/or the asset itself. Spreading false rumors is also prohibited.

Application of Standard II(B) Market Manipulation⁷

Example 1:

Matthew Murphy is an analyst at Divisadero Securities & Co., which has a significant number of hedge funds among its most important brokerage clients. Some of the hedge funds hold short positions on Wirewolf Semiconductor. Two trading days before the publication of the quarter-end report, Murphy alerts his sales force that he is about to issue a research report on Wirewolf that will include the following opinion:

- Quarterly revenues are likely to fall short of management's guidance.
- Earnings will be as much as 5 cents per share (or more than 10%) below consensus.
- Wirewolf's highly respected chief financial officer may be about to join another company.

Knowing that Wirewolf had already entered its declared quarter-end "quiet period" before reporting earnings (and thus would be reluctant to respond to rumors, etc.), Murphy times the release of his research report specifically to sensationalize the negative aspects of the message to create significant downward pressure on Wirewolf's stock to the distinct advantage of Divisadero's hedge fund clients. The report's conclusions are based on speculation, not on fact. The next day, the research report is broadcast to all of Divisadero's clients and to the usual newswire services.

Before Wirewolf's investor relations department can assess its damage on the final trading day of the quarter and refute Murphy's report, its stock opens trading sharply lower, allowing Divisadero's clients to cover their short positions at substantial gains.

Comment:

Murphy violated Standard II(B) by aiming to create artificial price volatility designed to have material impact on the price of an issuer's stock. Moreover, by lacking an adequate basis for the recommendation, Murphy also violated Standard V(A): Diligence and Reasonable Basis.

Example 2:

Acme Futures Exchange is launching a new bond futures contract. To convince investors, traders, arbitrageurs, hedgers, and so on, to use its contract, the exchange attempts to demonstrate that it has the best liquidity. To do so, it enters into agreements with members so they commit to a substantial minimum trading

volume on the new contract over a specific period in exchange for substantial reductions on their regular commissions.

Comment:

The formal liquidity of a market is determined by the obligations set on market makers, but the actual liquidity of a market is better estimated by the actual trading volume and bid-ask spreads. Attempts to mislead participants on the actual liquidity of the market constitute a violation of Standard II(B). In this example, investors have been intentionally misled to believe they chose the most liquid instrument for some specific purpose, but they could eventually see the actual liquidity of the contract significantly reduced after the term of the agreement expires. If Acme Futures Exchange fully discloses its agreement with members to boost transactions over some initial launch period, it does not violate Standard II(B). Acme's intent is not to harm investors but on the contrary, to give them a better service. For that purpose, it may engage in a liquidity-pumping strategy, but the strategy must be disclosed.

Example 3:

A member is seeking to sell a large position in a fairly illiquid stock from a fund he manages. He buys and sells shares of the stock between that fund and another he also manages, to create an appearance of activity and stock price appreciation, so that the sale of the whole position will have less market impact and he will realize a better return for the fund's shareholders.

Comment:

The trading activity is meant to mislead market participants and is, therefore, a violation of the Standard. The fact that his fund shareholders gain by this action does not change the fact that it is a violation.

III. DUTIES TO CLIENTS

LO A.3: Demonstrate knowledge of Standard III: Duties to Clients.

Including:

- **Interpret Standard III with respect to loyalty, prudence and care, fair dealing, suitability, performance presentation, and preservation of confidentiality.**
 - **Identify procedures for compliance with respect to loyalty, prudence and care, fair dealing, suitability, performance presentation, and preservation of confidentiality.**
-

III(A) Loyalty, Prudence, and Care

Members and Candidates have a duty of loyalty to their clients and must act with reasonable care and exercise prudent judgment. Members and Candidates must act for the benefit of their clients and place their clients' interests before their employer's or their own interests.

Guidance

Client interests always come first. Although this Standard does not impose a fiduciary duty on members or candidates where one does not already exist, it does require members and candidates to act in their clients' best interest and recommend