

CHAPTER 1**Introduction**

This second edition of *CAIA Level II: Advanced Core Topics in Alternative Investments* represents a substantial revision of the first edition. The topics covered are as dynamic as the alternative investments industry itself, as every textbook underlying the CAIA program adapts to growth in the industry and emerging asset types. Although the private equity and hedge fund parts closely follow those of the previous edition, material on managed futures, commodities, and real estate has been substantially revised. Across most topic areas, coverage on due diligence, liquidity risk, and operational due diligence has been enhanced. The importance of currency markets in global investing is directly addressed in a commodity context as well as within the framework of global macro hedge funds.

1.1 OUTLINE OF THIS BOOK

The book is divided into five parts. The first part discusses endowments, foundations, and pension plans as examples of institutional investors. The final four parts each discuss a sector of alternative investment strategies: private equity, real assets, commodities, and hedge funds and managed futures.

Part One of the book discusses asset allocation and portfolio management from the point of view of institutional investors. Completely new to the second edition are Chapters 2, 3, and 4, which outline the investment challenges and practices of endowments, foundations, and pension plans, which have become some of the world's largest investors in alternative assets. These chapters explore the motivation for those investors to grow their asset allocation to alternative investments. They face special risks and considerations when investing in alternative assets and integrating those assets into their business operations. These include spending rates, inflation, liquidity, rebalancing, tail risk, funding status, and surplus risk. The endowment model as represented by the investment strategy of Yale University's endowment is examined in Chapter 2, while liability-driven investing is a highlight of Chapter 4.

Part Two, which comprises Chapters 5 to 14, discusses the private equity market. Building on the material from *CAIA Level I: An Introduction to Core Topics in Alternative Investments*, it covers advanced topics in private equity investments and describes various routes into those investments. It explains manager selection and monitoring processes; reviews benchmarking in the private equity world, valuation methods, and management of liquidity; explains substrategies of private equity, including buyouts, venture capital, and mezzanine financing. The roles of the general

partner and limited partners are outlined, as are the risks that arise in these relationships. This part explores private equity portfolio design through direct investments in funds, co-investments, funds of funds, and secondary investments. The important role of the vintage year is discussed in terms of both liquidity management and diversification.

Part Three presents real assets, including real estate, farmland, timber, and intellectual property investments. Real assets are considered desirable assets because of their potential to provide a hedge against inflation risk. Three chapters in this section, Chapter 16: Unsmoothing of Appraisal-Based Returns, Chapter 21: Farmland and Timber Investments, and Chapter 22: Investing in Intellectual Property, are new to this edition. The Level I book discussed real estate investments in terms of the underlying equity or debt structure. This book divides real estate into publicly traded and private partnership investments, as well as risk characterizations including investments in core, value-added, and opportunistic properties. Various forms of real estate investment and valuation methodologies are discussed, as is the due diligence of real estate investments and the risk-return characteristics of major real estate indices. Of special interest is Chapter 16, which contains all-new material on the unsmoothing of real estate returns. Illiquid assets tend to have return processes that are too smooth, which leads to biases in their risk estimation. Because appraisal-based returns, whether in real estate or in private equity, are not what they seem, investors need to make quantitative adjustments to smoothed returns to calculate more accurate risk exposures before adding these investments to their portfolios. Reflecting the market's dramatic growth in real asset investments, Chapters 21 and 22 have been added to discuss investments in farmland, timber, and intellectual property.

Part Four discusses commodities with a focus on commodity investments through futures and swaps markets. The role of hedgers and speculators is explored, along with how each might impact the term structure of futures prices. The readings provide advanced analysis of commodity markets and explain the role of commodities in asset allocation. This part describes various methods for generating commodity alpha and beta through spot and futures transactions and discusses major commodity indices and their risk-return profiles. The role of fundamental demand and supply factors is explored, as well as the financial market drivers of commodity returns, including linkages to currency markets, interest rates, inflation, and the business cycle. Risk management of commodity strategies is also included, with studies in liquidity risk and event risk management.

The final section, Part Five, discusses hedge funds and managed futures. The first four chapters, 29 to 32, cover managed futures strategies. The structure of the managed futures industry and its regulatory framework are presented, and each managed futures strategy and its risk-return profile are explained. The role of managed futures in diversified portfolios is examined, and performance evaluation and manager selection processes are explained. The distinctions between single-manager and multimanager funds, separate accounts, and platform investments are discussed, which can have important implications for performance, fees, and legal risks. In light of the collapse of MF Global, the importance of collateral segregation is emphasized. Risk measurement and control are presented, and the importance of margin-to-equity ratios is discussed.

Finally, Chapters 33 to 40 discuss investments in hedge funds. New to this edition is Chapter 33, which explores the theory and practice of hedge fund replication

and factor modeling. Chapters 34 to 37 discuss specific hedge fund strategies, including convertible arbitrage, global macro, and long/short equity. Foreign currency strategies are examined and their benchmarks are evaluated. The risk-return characteristics of funds of funds and investable hedge fund indices are explained and compared. Due diligence processes for various hedge fund strategies and the role of operational risk are explained. Hedge fund replication products are presented, and various methodologies used in the creation of these products are evaluated. A detailed examination of the global macro strategy is also presented, with examination of the potential role of this strategy in the presence of increased uncertainty in the global markets. Portfolio construction of funds of funds is studied along with the benefits and costs of investing in multimanager products.

1.2 STUDYING FOR THE CAIA LEVEL II EXAMINATION

The reading materials for the CAIA Level II examination include the CFA Institute's *Standards of Practice Handbook*, this volume: *CAIA Level II: Advanced Core Topics in Alternative Investments*, and *CAIA Level II: Core and Integrated Topics*. The syllabus for the exam, which outlines all of the readings and corresponding learning objectives (LOs) that candidates are responsible for meeting, is contained in the *CAIA Level II Study Guide*, which is available for free download at <http://caia.org>. This document also contains important information for candidates regarding the use of LOs, testing policies, topic weightings, where to find and report errata, and much more. The entire exam process is outlined in the *CAIA Candidate Handbook* and is available at <http://caia.org/caia-program/exams/candidate-handbook>.

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