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CFA®

Exam Prep

SchweserNotes™

Alternative Investments, Portfolio Management, and Ethical and Professional Standards

Level I Book 4

KAPLAN SCHWESER

Book 4: Alternative Investments, Portfolio Management, and Ethical and Professional Standards

SchweserNotes™ 2026

Level I CFA®

SCHWESERNOTES™ 2026 LEVEL I CFA® BOOK 4: ALTERNATIVE INVESTMENTS, PORTFOLIO MANAGEMENT, AND ETHICAL AND PROFESSIONAL STANDARDS

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d. calculate and interpret the mean, variance, and covariance (or correlation) of asset returns based on historical data.
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85. Portfolio Management: An Overview

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d. describe defined contribution and defined benefit pension plans.
e. describe aspects of the asset management industry.
f. describe mutual funds and compare them with other pooled investment products.

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a. describe the reasons for a written investment policy statement (IPS).
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c. describe risk and return objectives and how they may be developed for a client.
d. explain the difference between the willingness and the ability (capacity) to take risk in analyzing an investor's financial risk tolerance.
e. describe the investment constraints of liquidity, time horizon, tax concerns, legal and regulatory factors, and unique circumstances and their implications for the choice of portfolio assets.
f. explain the specification of asset classes in relation to asset allocation.
g. describe the principles of portfolio construction and the role of asset allocation in relation to the IPS.
h. describe how environmental, social, and governance (ESG) considerations may be integrated into portfolio planning and construction.

87. The Behavioral Biases of Individuals

The candidate should be able to:

a. compare and contrast cognitive errors and emotional biases.
b. discuss commonly recognized behavioral biases and their implications for financial decision making.
c. describe how behavioral biases of investors can lead to market characteristics that may not be explained by traditional finance.

88. Introduction to Risk Management

The candidate should be able to:

a. define risk management.
b. describe features of a risk management framework.
c. define risk governance and describe elements of effective risk governance.
d. explain how risk tolerance affects risk management.
e. describe risk budgeting and its role in risk governance.
f. identify financial and non-financial sources of risk and describe how they may interact.
g. describe methods for measuring and modifying risk exposures and factors to consider in choosing among the methods.

89. Ethics and Trust in the Investment Profession

The candidate should be able to:

a. explain ethics.
b. describe the role of a code of ethics in defining a profession.

c. describe professions and how they establish trust.
d. describe the need for high ethical standards in investment management.
e. explain professionalism in investment management.
f. identify challenges to ethical behavior.
g. compare and contrast ethical standards with legal standards.
h. describe a framework for ethical decision making.

90. Code of Ethics and Standards of Professional Conduct

The candidate should be able to:

a. describe the structure of the CFA Institute Professional Conduct Program and the process for the enforcement of the Code and Standards.
b. identify the six components of the Code of Ethics and the seven Standards of Professional Conduct.
c. explain the ethical responsibilities required by the Code and Standards, including the sub-sections of each Standard.

91. Guidance for Standards I–VII

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b. recommend practices and procedures designed to prevent violations of the Code of Ethics and Standards of Professional Conduct.
c. identify conduct that conforms to the Code and Standards and conduct that violates the Code and Standards.

92. Introduction to the Global Investment Performance Standards (GIPS)

The candidate should be able to:

a. explain why the GIPS standards were created, who can claim compliance, and who benefits from compliance.
b. describe the key concepts of the GIPS Standards for Firms.
c. explain the purpose of composites in performance reporting.
d. describe the fundamentals of compliance, including the recommendations of the GIPS standards with respect to the definition of the firm and the firm's definition of discretion.
e. describe the concept of independent verification.

93. Ethics Application

The candidate should be able to:

a. evaluate practices, policies, and conduct relative to the CFA Institute Code of Ethics and Standards of Professional Conduct.
b. explain how the practices, policies, and conduct do or do not violate the CFA Institute Code of Ethics and Standards of Professional Conduct.

READING 76

ALTERNATIVE INVESTMENT FEATURES, METHODS, AND STRUCTURES

MODULE 76.1: ALTERNATIVE INVESTMENT STRUCTURES

LOS 76.a: Describe features and categories of alternative investments.

Alternative investments comprise various types of investments that do not fall under the heading of **traditional investments**, which refers to long-only investments in cash or publicly traded stocks and bonds.

Types of alternative investment structures include hedge funds, private equity funds, and various types of real estate investments. Alternative investments typically are actively managed and may include investments in commodities, infrastructure, and illiquid securities.

The perceived benefits of including alternative investments in portfolios are risk reduction from diversification (due to low correlations of alternative investments with traditional investments) and possible higher returns from holding illiquid securities, and from markets for some alternative investments possibly being less efficient than those for traditional investments.

Compared with traditional investments, alternative investments typically exhibit the following features:

- More specialized knowledge required of investment managers
- Relatively low correlations with returns of traditional investments
- Less liquidity of assets held
- Longer time horizons for investors
- Larger size of investment commitments

As a result of these unique features, alternative investments exhibit the following characteristics:

- Investment structures that facilitate direct investment by managers
- Information asymmetry between fund managers and investors, which funds typically address by means of incentive-based fee structures
- Difficulty in appraising performance, such as more problematic and less available historical returns and volatility data

Although correlations of returns on alternative investments with returns on traditional investments may be low on average, these correlations may increase significantly during periods of economic stress.

We will examine several types of alternative investments in detail in separate readings in this topic area. We may classify alternative investments into three broad categories of private capital, real assets, and hedge funds.

1. **Private capital** includes private equity and private debt:
   - As the name suggests, **private equity** funds invest in the equity of companies that are not publicly traded, or in the equity of publicly traded firms that the funds intend to take private. These firms are often in the mature or decline stages of their industry life cycle. **Leveraged buyout (LBO)** funds use borrowed money to purchase equity in established companies and comprise most private equity investment funds. **Venture capital** funds invest in young, unproven companies at the start-up or early stages in their life cycles.
   - **Private debt** funds may make loans directly to companies, lend to early-stage firms (**venture debt**), or invest in the debt of firms that are struggling to make their debt payments or have entered bankruptcy (**distressed debt**).
2. **Real assets** include real estate, infrastructure, natural resources, and other assets such as digital assets:
   - **Real estate** investments include residential or commercial properties, as well as real estate–backed debt. These investments are held in various structures, including full or leveraged ownership of individual properties, individual real estate–backed loans, private and publicly traded securities backed by pools of properties or mortgages, and limited partnerships.
   - **Natural resources** include commodities, farmland, and timberland. To gain exposure to **commodities**, investors can own physical commodities, commodity derivatives, or the equity of commodity-producing firms. Some funds seek exposure to the returns on various commodity indices, often by holding derivatives contracts (futures) that are expected to track a specific commodity index. **Farmland** can produce income from leasing the land out for farming or from raising crops or livestock for harvest and sale. **Timberland** investment involves purchasing forested land and harvesting trees to generate cash flows.
   - **Infrastructure** refers to long-lived assets that provide public services. These include economic infrastructure assets (e.g., roads, airports, and utility grids) and social infrastructure assets (e.g., schools and hospitals). While often financed and constructed by government entities, infrastructure investments have more recently been undertaken by **public-private partnerships**, with each holding a significant stake in the infrastructure assets. Various deal structures are employed, and the asset may revert to public ownership at some future date.
   - Other types of real assets include collectibles such as art, intangible assets such as patents, and **digital assets** such as cryptocurrencies.
3. **Hedge funds** are investment companies typically open only to qualified investors. These funds may use leverage, hold long and short positions, use derivatives, and invest in illiquid assets. Managers of hedge funds use many different strategies in

attempting to generate investment gains. They do not necessarily hedge risk, as the name might imply.

LOS 76.b: Compare direct investment, co-investment, and fund investment methods for alternative investments.

Fund investing refers to investing in a pool of assets alongside other investors, using a fund manager who selects and manages a pool of investments using an agreed-upon strategy. In this case, the individual investors do not control the selection of assets for investment or their subsequent management and sale. The manager typically receives a percentage of the investable funds (management fee) as well as a percentage of the investment gains (incentive fee).

Compared to funds that invest in traditional asset classes, alternative investment funds typically require investors to commit larger amounts of capital for longer periods, provide less information on positions held and returns earned, and charge higher management fees. A fund's **term sheet** describes its investment policy, fee structure, and requirements for investors to participate.

With **co-investing**, an investor contributes to a pool of investment funds (as with fund investing) but also has the right to invest, directly alongside the fund manager, in some of the assets in which the manager invests. Compared to fund investing, co-investing can reduce overall fees while benefiting from the manager's expertise. Co-investing also can provide an investor with an opportunity to gain the skills and experience to pursue direct investing. For a fund manager, permitting co-investment may increase the availability of investment funds and expand the scope and diversification of the fund's investments.

Direct investing refers to an investor that purchases assets itself, rather than pooling its funds with others or using a specialized outside manager. Larger, more knowledgeable investors may purchase private companies or real estate directly. For example, a sovereign wealth fund may have its own specialized managers to invest in real estate, agricultural land, or companies in the venture stage.

Direct investing has advantages in that there are no fees to outside managers, and the investor has more control over investment choices. Disadvantages include the possibility of less diversification across investments, higher minimum investment amounts, and greater investor expertise required to evaluate deals and perform their own due diligence.

LOS 76.c: Describe investment ownership and compensation structures commonly used in alternative investments.

Alternative investments are often structured as **limited partnerships**. In a limited partnership, the **general partner (GP)** is the fund manager and makes all the investment decisions. The **limited partners (LPs)** are the investors, who own a partnership share proportional to their investment amounts. The LPs typically have no say in how the fund is managed and no liability beyond their investment in the partnership. The GP takes on the liabilities of the partnership, including the repayment

of any partnership debt. Partnerships typically set a maximum number of LPs that may participate.

LPs commit to an investment amount, and in some cases, they only contribute a portion of that initially, providing the remaining funds over time as required by the GP (as fund investments are made). General partnerships are less regulated than publicly traded companies, and limited partnership shares are typically only available to **accredited investors**'those with sufficient wealth to bear significant risk and enough investment sophistication to understand the risks.

The rules and operational details that govern a partnership are contained in the **limited partnership agreement**. Special terms that apply to one limited partner but not to others can be stated in **side letters**. For example, an LP might negotiate an **excusal right** to withhold a capital contribution that the GP would otherwise require. Some limited partners may require that special terms offered to other LPs also be offered to them. This is known as a **most-favored-nation clause** in a side letter.

While most alternative investment limited partnership holdings are illiquid, a fund may be structured as a **master limited partnership (MLP)** that can be publicly traded. Master limited partnerships are most common in funds that specialize in natural resources or real estate.

Fee Structures

The total fees paid by investors in alternative investment funds often consist of a **management fee**, typically between 1% and 2% of the fund's assets, and a **performance fee** or **incentive fee** (sometimes referred to as **carried interest**).

The fund manager earns the management fee, regardless of investment performance. For hedge funds, the management fees are calculated as a percentage of assets under management (AUM), typically the net asset value of the fund's investments. For private equity funds, the management fee is calculated as a percentage of **committed capital**, not invested capital. Committed capital is typically not all invested immediately; rather, it is "drawn down" (invested) as securities are identified and added to the portfolio. Committed capital is usually drawn down over three to five years, but the drawdown period is at the discretion of the fund manager. Committed capital that has not yet been drawn down is referred to as **dry powder**. The reason for basing management fees on committed capital is that otherwise, the fund manager would have an incentive to invest capital quickly instead of selectively.

Performance fees (also referred to as incentive fees) are a portion of profits on fund investments. Most often, the partnership agreement will specify a **hurdle rate** (or **preferred return**) that must be met or exceeded before any performance fees are paid. Hurdle rates can be defined in two ways: either "hard" or "soft." If a **soft hurdle rate** is met, performance fees are a percentage of the total increase in the value of each partner's investment. With a **hard hurdle rate**, performance fees are based only on gains above the hurdle rate.

For example, consider a fund with a hurdle rate of 8% that has produced a return of 12% for the year. We will use a performance fee structure of 20% of gains. If the 8% is a

soft hurdle rate, the performance fee will be 20% of the entire 12%, or 2.4%. If the 8% is a hard hurdle rate, the performance fee will be 20% of the gains above the hurdle rate (12% - 8% = 4%), which would be 0.8%.

Typically, performance fees are paid at the end of each year based on the increase in the value of fund investments, after management fees and other charges, which may include consulting and monitoring fees that are charged to individual portfolio companies.

A **catch-up clause** in a partnership agreement is based on a hurdle rate and is similar in its effect to a soft hurdle rate. Consider a fund with returns of 14%, a hurdle rate of 8%, and a 20% performance fee. A catch-up clause would result in the first 8% of gains going to the LPs and the next 2% going to the GP, allowing the GP to "catch up" to receiving 20% of the first 10% of gains. After the catchup, further gains are split 80/20 between the LPs and the GP.

Another feature that is often included is a **high-water mark**, which means no performance fee is paid on gains that only offset prior losses. Thus, performance fees are only paid to the extent that the current value of an investor's account is above the highest net-of-fees value previously recorded (at the end of a payment period). This feature ensures that investors will not be charged performance fees twice on the same gains in their portfolio values. Because investors invest in a fund at different times, they each may have a different high-water mark value.

A partnership's **waterfall** refers to the way in which payments are allocated to the GP and the LPs as profits and losses are realized on deals. With a **deal-by-deal waterfall** (or **American waterfall**), profits are distributed as each fund investment is sold and shared according to the partnership agreement. This favors the GP because performance fees are paid before 100% of the LPs' original investment plus the hurdle rate is returned to them. With a **whole-of-fund waterfall** (or **European waterfall**), the LPs receive all distributions until they have received 100% of their initial investment plus the hurdle rate (typically after all fund investments have been sold).

A **clawback provision** stipulates that if the GP accrues or receives incentive payments on gains that are subsequently reversed as the partnership exits deals, the LPs can recover previous (excess) incentive payments. With a deal-by-deal waterfall, successful deals might be exited initially, while losses are realized later. A clawback provision would allow the LPs to recover these performance fees to the extent that the subsequent losses negate prior gains on which performance fees had been paid.

MODULE QUIZ 76.1

1. Compared with alternative investments, traditional investments tend to:
   A. be less liquid.
   B. have lower fees.
   C. require more specialized knowledge.

2. An investor who wants to gain exposure to alternative investments but does not have the in-house expertise to perform due diligence on individual deals is *most likely* to engage in:
   A. co-investing.
   B. fund investing.

C. direct investing.

3. Management fees for a private capital fund are determined as a percentage of:
   A. invested capital.
   B. committed capital.
   C. assets under management.

4. For an investor in a private equity fund, the *least* advantageous of the following limited partnership terms is a(n):
   A. clawback provision.
   B. European-style waterfall provision.
   C. American-style waterfall provision.

KEY CONCEPTS

LOS 76.a

Alternative investments comprise various types of investments that do not fall under the heading of traditional investments. Categories of alternative investments include the following:

- Hedge funds
- Private capital (private equity and private debt)
- Real assets (real estate, natural resources, and infrastructure)

Alternative investments have relatively low correlations with returns of traditional investments. Compared with traditional investments, alternative investments typically require more specialized knowledge of investment managers. Assets held tend to be less liquid, making alternative investments appropriate for investors who have long time horizons and can commit large amounts of capital.

LOS 76.b

Fund investing refers to pooling assets along with other investors, using a fund manager that selects and manages investments according to an agreed-upon strategy.

Co-investing refers to fund investing that includes the right to invest additional capital directly alongside the fund manager.

Direct investing refers to purchasing assets independently, rather than pooling funds with others or using a specialized outside manager.

LOS 76.c

Many alternative investments are structured as limited partnerships, in which the GP is the fund manager and the LPs are the investors. They are less regulated than publicly traded companies and are typically only available to accredited investors. LPs may commit to an investment amount and, in some cases, contribute only a portion of that initially, providing the remaining funds over time as required by the GP.

Fees in alternative investment funds often consist of a management fee and a performance fee. For hedge funds, management fees are a percentage of assets under management. For private capital, management fees are a percentage of committed capital rather than capital invested.

Performance fees are a portion of profits on fund investments. Typically, a hurdle rate must be exceeded before performance fees are paid. With a soft hurdle rate, performance fees are based on the total increase in the value of each partner's investment. With a hard hurdle rate, performance fees are based only on gains above the hurdle rate. A high-water mark is a provision that no performance fees are paid on gains that only offset prior losses.

A waterfall refers to the way payments are allocated to the GP and the LPs. With a deal-by-deal or American waterfall, profits are distributed as each fund investment is sold. With a whole-of-fund or European waterfall, the LPs receive all distributions until they have received 100% of their initial investment plus the hurdle rate.

With a clawback provision, if the GP receives incentive payments on gains that are subsequently reversed, the LPs can recover excess incentive payments.

ANSWER KEY FOR MODULE QUIZZES

Module Quiz 76.1

1. **B** Traditional investments typically have lower fees, require less specialized knowledge by investment managers, and are more liquid than alternative investments. (LOS 76.a)

2. **B** With fund investing, due diligence on the fund's portfolio investments is a responsibility of the fund manager rather than the fund investors. Direct investing and co-investing require greater due diligence of individual deals on the part of the investor. (LOS 76.b)

3. **B** For a private capital fund, management fees are a percentage of committed capital rather than invested capital. For a hedge fund, management fees are a percentage of assets under management. (LOS 76.c)

4. **C** An American-style waterfall structure has a deal-by-deal calculation of incentive fees to the GP. In this case, a successful deal where incentive fees are paid, followed by the sale of a holding that has losses in the same year, can result in incentive fees greater than those calculated using a European-style (whole-of-fund) waterfall. A clawback provision benefits the limited partners by allowing them to recover performance fees paid earlier if the fund realizes losses later. A clawback provision, coupled with an American-style waterfall, will result in the same overall performance fees as a European-style waterfall if the transactions occur in subsequent years. (LOS 76.c)

READING 77

ALTERNATIVE INVESTMENT PERFORMANCE AND RETURNS

MODULE 77.1: PERFORMANCE APPRAISAL AND RETURN CALCULATIONS

LOS 77.a: Describe the performance appraisal of alternative investments.

Alternative investments are typically exposed to greater risks than unleveraged long-only traditional investments. These additional risks arise from the following:

- Timing of cash flows over an investment's life cycle
- Use of leverage by fund managers
- Valuation of investments that may or may not have observable market prices
- Complexity of fees, taxes, and accounting

Ideally, returns on alternative investments should be adjusted for these risks, although that may be difficult in practice. It is clear, however, that evaluating alternative investment returns (or expected returns) without considering these additional risks would be naïve and possibly misleading.

Timing of Cash Flows

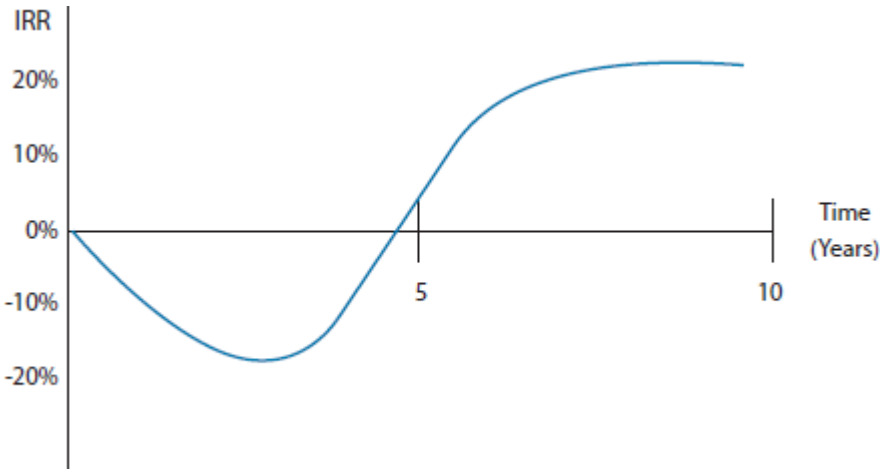
Alternative investments often have a life cycle that exhibits three phases:

1. In the **capital commitment phase**, a fund's managers are identifying investments and making **capital calls** from the partners. Recall that limited partners commit a stated amount of capital that they will invest, but they do not necessarily deliver the entire amount immediately in cash. Managers make capital calls as they identify investments for which they require cash. Because of these cash outflows and the long-term nature of the typical investments, returns tend to be negative during the capital commitment phase.
2. During the **capital deployment phase**, the managers fund, and often involve themselves directly in, the firms or projects in which they invest. Returns typically remain negative in this phase, especially if the investments are in start-up companies or troubled firms that the managers are attempting to turn around.
3. If the fund's investments succeed and begin to generate income and cash flows, the fund enters a **capital distribution phase** during which its returns turn positive and

accelerate.

A **J-curve effect** (illustrated in Figure 77.1) reflects the norm of negative returns in the capital commitment phase, followed by increasing returns in the capital deployment phase and maximum returns in the capital distribution phase. Returns may reach a plateau toward the end of a fund's life as the managers exit any remaining investments.

Figure 77.1: J-Curve Example



Given the variability of cash flows over a fund's life and the importance of management decisions in the timing and magnitude of after-tax cash flows, an IRR over the life of a fund is the most appropriate measure of after-tax investment performance. (Recall from Quantitative Methods that a money-weighted rate of return, which is an IRR, is appropriate when a manager controls the timing of cash inflows and outflows.) A drawback to using IRRs is that they rest on assumptions about the cost of capital for cash outflows and the reinvestment rate for cash inflows.

A simpler measure of investment success is the **multiple of invested capital** (or **money multiple**)'the ratio of total capital returned plus the value of any remaining assets, to the total capital paid in over the life of the investment. Because this measure does not consider the timing of cash inflows and outflows, which can affect annual returns on invested capital significantly, it can be considered somewhat naïve.

Use of Leverage

Some alternative investments, particularly hedge funds, use borrowing to magnify their gains (at the risk of magnifying losses). Hedge funds may arrange margin financing with **prime brokers** or employ leverage by means of derivatives.

To state the effect of leverage on returns, consider a fund that can invest the amount V_0 without leverage, and earn the rate of return r. The fund's unleveraged portfolio return (as a money amount) is simply this: $r \times V_0$. Now, let's say this fund can borrow the amount V_B at an interest rate of r_B, and earn r by investing the proceeds. The fund's leveraged portfolio return (again, as a money amount), after subtracting the interest cost, then becomes:

$$r \times (V_0 + V_B) - (r_B \times V_B)$$

Thus, stated as a rate of return on the initial portfolio value of V_0, the leveraged rate of return is as follows:

$$\text{leveraged return} = \frac{r(V_0 + V_B) - r_B V_B}{V_0}$$

One of the reasons that funds use leverage is that some strategies attempt to exploit relatively small pricing anomalies that might not produce meaningful results without leverage. A risk from using leverage is that a lender may issue margin calls if a fund's equity position decreases below a certain level. These can result in a fund having to realize losses by closing positions or liquidating investments at unfavorable prices. If the fund must sell a large position in a security, doing so may depress its price further. Another important risk of funds that depends on leverage is that lenders may limit their access to additional borrowing.

Valuation of Investments

As we have discussed, many alternative investments involve illiquid assets that do not trade frequently in transparent markets. While funds must recognize investments at fair value to comply with accounting standards, fair value might rest on assumptions of which an investor in a fund should be aware. A **fair value hierarchy** groups these assumptions into the following three levels:

- *Level 1.* The assets trade in active markets and have quoted prices readily available, such as exchange-traded securities.
- *Level 2*. The assets do not have readily available quoted prices, but they can be valued based on directly or indirectly observable inputs, such as many derivatives that can be priced using models.
- *Level 3.* The assets require unobservable inputs to establish a fair value, such as real estate or private equity investments, for which there have been few or no market transactions.

Particularly for Level 3 investments, the absence of market activity can result in valuations that remain near their initial cost for long periods. As a result, these values might not reflect the actual exit costs of the investments. Importantly, this relative lack of change in fair values can make reported returns for alternative investments appear higher, less risky, and less correlated with traditional investments than they really are.

Fee Structures

In the next LOS, we will examine some of the effects on investors' returns of different fee specifications, such as high-water marks, hard or soft hurdle rates, and waterfall structures. Keep in mind that fee structures are subject to negotiation (e.g., a limited partner might agree to a higher management fee in exchange for fewer restrictions on redemptions) and may differ depending on how early in a fund's life cycle an investor commits capital. Thus, different investors in the same fund might realize significantly different returns.