

STUDY SESSION 13

ALTERNATIVE ASSET VALUATION

The major asset categories included in alternative investments are real estate, private equity, commodities, and hedge funds. Private equity is examined from the perspective of a private equity firm evaluating equity investments for its portfolio and an investor evaluating participation in a private equity fund. The characteristics of commodity markets are discussed along with the inflation hedging benefits of commodities investment. Finally, the unique challenges in evaluating hedge funds are addressed.

READING ASSIGNMENTS

- Reading 45** [Investment Analysis](#)
Real Estate, Thirteenth Edition, by James D. Shilling
- Reading 46** [Income Property Analysis and Appraisal](#)
Real Estate, Thirteenth Edition, by James D. Shilling
- Reading 47** [Private Equity Valuation](#)
by Yves Courtois, CFA and Tim Jenkinson
- Reading 48** [Investing in Commodities](#)
Global Perspectives on Investment Management: Learning from the Leaders, edited by Rodney N. Sullivan, CFA
- Reading 49** [Evaluating the Performance of Your Hedge Funds](#)
Evaluating Hedge Fund Performance, by Vinh Q. Tran
- Reading 50** [Buyers Beware: Evaluating and Managing the Many Facets of the Risks of Hedge Funds](#)
Evaluating Hedge Fund Performance, by Vinh Q. Tran

LEARNING OUTCOMES

Reading 45: Investment Analysis

The candidate should be able to:

- a. illustrate, for each type of real property investment, the main value determinants, investment characteristics, principal risks, and most likely investors;
- b. evaluate a real estate investment using net present value (NPV) and internal rate of return (IRR) from the perspective of an equity investor;
- c. calculate the after-tax cash flow and the after-tax equity reversion from real estate properties;
- d. explain the potential problems associated with using IRR as a measurement tool in real estate investments.

Reading 46: Income Property Analysis and Appraisal

The candidate should be able to:

- a. explain the relation between a real estate capitalization rate and a discount rate;
- b. determine the capitalization rate by the market-extraction method, band-of-investment method, and built-up method, and justify each method's use in capitalization rate determination;
- c. estimate the market value of a real estate investment using the direct income capitalization approach and the gross income multiplier technique;
- d. contrast the limitations of the direct capitalization approach to those of the gross income multiplier technique.

Reading 47: Private Equity Valuation

The candidate should be able to:

- a. explain the sources of value creation in private equity;
- b. explain how private equity firms align their interests with those of the managers of portfolio companies;
- c. distinguish between the characteristics of buyout and venture capital investments;
- d. discuss the valuation issues in buyout and venture capital transactions;
- e. explain alternative exit routes in private equity and their impact on value;
- f. explain private equity fund structures, terms, valuation, and due diligence in the context of an analysis of private equity fund returns;
- g. explain the risks and costs of investing in private equity;
- h. interpret and compare financial performance of private equity funds from the perspective of an investor;
- i. calculate management fees, carried interest, net asset value, distributed to paid in (DPI), residual value to paid in (RVPI), and total value to paid in (TVPI) of a private equity fund;

A Note on the Valuation of Venture Capital Deals: (Reading Appendix 47A)

- j. calculate pre-money valuation, post-money valuation, ownership fraction, and price per share applying the venture capital method 1) with single and multiple financing rounds and 2) in terms of IRR;

- k. demonstrate alternative methods to account for risk in venture capital;

Technical Notes on LBO Valuation—(A) and (B): (Reading Appendix 47B)

- l. calculate and interpret free cash flow forecasts in a leveraged buyout (LBO) transaction;
- m. explain the role of cash sweep in an LBO transaction;
- n. explain how private equity firms manage their exit routes in LBO companies;
- o. explain and calculate the value of the equity investment in an LBO company under the target IRR and equity cash flow methods of valuation.

Reading 48: Investing in Commodities

The candidate should be able to:

- a. explain why some commodity futures such as gold have limited “contango,” whereas others such as oil often have natural “backwardation,” and indicate why these conditions might be less prevalent in the future;
- b. discuss how “roll yield” in a commodity futures position can be positive (negative);
- c. discuss the argument that commodity futures are not an asset class;
- d. demonstrate how the geometric return of an actively managed commodity basket can be positive, whereas the underlying average commodity has a geometric return near zero;
- e. discuss why investing in commodities offers diversification opportunities during periods of economic fluctuation in the short run and inflation in the long run.

Reading 49: Evaluating the Performance of Your Hedge Funds

The candidate should be able to:

- a. discuss how the characteristics of hedge funds affect traditional methods of performance measurements;
- b. compare and contrast the use of market indices, hedge fund indices, and positive risk-free rates to evaluate hedge fund performance.

Reading 50: Buyers Beware: Evaluating and Managing the Many Facets of the Risks of Hedge Funds

The candidate should be able to:

- a. discuss common types of investment risks for hedge funds;
- b. evaluate maximum drawdown and value-at-risk for measuring risks of hedge funds.