

Alternative Investments

1.5 Credit

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Background:

The current low yield of OECD government bonds and efficiency of equity markets have sent investors in search of higher yields. *Alternative Investments* is a class of products that has produced attractive returns but is outside the traditional categories of exchange traded equities, Treasury Bonds, and other investment-grade fixed income products. This class of investments covers a wide range of products such as convertible bonds, Preferred Shares, Hedge Funds, Venture Capital and Catastrophe Bonds. There is a growing demand in the market for students with knowledge of these products and the practical and theoretical knowledge of valuing and risk managing alternative investments given that each product in this universe has its own nuances and characteristics.

This half course presents some major Alternative Investment products and ways to evaluate and risk manage them.

Prerequisite: Courses in Investment, Probability and Statistics, working knowledge of EXCEL and high level language such as R, Python, or VBA

Grading: 40% homework, 45% Final Project, Midterm 15% exam

Syllabus

Class 1: Overall view of Financial Markets and the role of Alternative Investments in a Portfolio

Discuss investment horizons; Returns and risks of major classes of Alternative investments; Examine how similar investments are evaluated differently by each investor type because of marked distortions introduced by differentiated regulations; Introduction to convertible bonds

Readings

1. Selections from credit derivatives literature
2. Technical Notes on Basel Capital rules from Fed

Assignments:

1. Analysis of historical performance of major market indices and traditional investments during different business cycles.
2. Binomial trees in valuing simple Convertible Bonds

Class 2: Convertible Bonds (CB)

Properties of CBs and their sensitivities to changes in different parameters (Greeks); Pricing and hedging of CBs; Convertible Arbitrage principles

Assignments:

1. Study and analyze some CBs in the market e.g. TESLA
2. Pricing model for a CB with coupon and dividend.

Class 3: Hedge Funds

Legal structures; Ways to invest in a hedge fund; Fee Structures, High Watermark, Lockout Periods and “key person” clauses; Due diligence; Fund of Hedge Funds; Various Hedge Fund Performance measures and their use and characteristics e.g., Sharpe Ratio, Information Ratio.

Assignments:

1. Hedge fund performance measures in practice
2. Discussion and selection of final projects and presentation for different groups. Students choose from major Financial Markets fiascos and blow ups, e.g. Long Term Capital, Big Short, Baring Bank, London Whale

Class 4: Major Hedge Fund Strategies:

Discussion of major strategies used by hedge funds, Philosophy behind these strategies, their performance during different business cycles; Strategies discussed will include Relative Value, Event Driven, Long/Short equity

Assignments:

1. Evaluating the performance of some hedge funds strategies using historical data and observing their viability during different business cycles.

Class 5: Venture Capital & Private Equity

Phases of funding of a company; Angel Investing, Venture Capital, Lockout and extension option, Vintages, Performance fees and carried interest, tax aspects, J-curve, lack of public information and challenge of performance monitoring; Investing in films and other entertainment Case studies

Assignments:

Case studies

Class 6: Distressed Debt

What is distressed debt, an example of potential return of investing in distressed debt; Capital structure and example of Financial Restructuring; Firm Model and financial distress; Legal Overview of Distressed Debt Restructuring; Cash-Flow-Based evaluation; leverage and credit support; Investing in Distressed Debt

Assignments:

Junk bond and distressed debts in the market and their historical performance

Class 7: Students presentation of their projects and case studies