B8396 Institutional Investing: Alternative Assets in Pension Plans

Spring B-Term 2014, Uris Hall Room 140, 5:45-9:00PM

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TEACHING ASSISTANT

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RECOMMENDED COURSE MATERIAL

1. Anson, Mark, Handbook of Alternative Assets
2. Kochard, Lawrence and Rittereiser, Cathleen, Foundation & Endowment Investing
3. Swenson, David, Pioneering Portfolio Management
4. Waring, M. Barton, Pension Finance, (November 2011)
5. “Honeywell Corporation: An Introduction to Corporate Pension Plans” (Columbia Caseworks)
6. “Yale University Investments Office: August 2006” (HBS Case Study)

RECOMMENDED PREREQUISITES AND CONNECTION TO THE CORE

The learning in this course will utilize, build on and extend concepts covered in the following core courses:

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Connection with Core</th>
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<tbody>
<tr>
<td>Corporate Finance</td>
<td>1. Time value of money</td>
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<tr>
<td></td>
<td>2. Opportunity cost of capital</td>
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<tr>
<td></td>
<td>3. Efficient markets</td>
</tr>
<tr>
<td></td>
<td>4. Risk</td>
</tr>
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<td></td>
<td>5. The Capital Asset Pricing Model (CAPM)</td>
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<tr>
<td>Decision Models</td>
<td>1. Constrained optimization</td>
</tr>
<tr>
<td>Global Economic</td>
<td>1. Exchange rates</td>
</tr>
<tr>
<td>Environment</td>
<td>2. Fiscal policy</td>
</tr>
<tr>
<td></td>
<td>3. Monetary policy</td>
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<tr>
<td>Managerial Statistics</td>
<td>1. Statistics data analysis</td>
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<td></td>
<td>2. Linear regression</td>
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Students will be expected to have mastered these concepts and be able to apply them in the course.
Students are recommended to have taken or exempted from B6301 Corporate Finance, B6302 Capital Markets and Investments and B8323 Asset Management.

**COURSE DESCRIPTION**

U.S. corporate and public defined benefit pension plans account for an estimated $5 trillion in investable assets. According to Pensions & Investments, the Top 200 U.S. retirement funds had approximately $645 billion invested in alternative assets as of the end of 2011. Alternative assets are a large and growing component of the institutional investment landscape. Given recent market volatility and the current low interest rate environment, DB pensions are likely, if not implicitly required to continue to invest in hedge funds and other alternatives assets in order to meet their long-term return objectives. Markets that have been or are likely to be in long term structural bear markets are also strong candidates for alternatives in pension plans. For example, Japan has been in a nearly quarter century bear market which has not been conducive to its pension plans meeting funding requirements with a traditional 60/40 allocation model. The Professor has successfully implemented alternative portfolios for the leading Japanese pension plans that have achieved positive returns despite this structural headwind.

This course examines key themes and issues related to investing in alternative assets from the perspective of major asset owners, such as defined benefit pension plans. The course will focus on the investment process and benefits of applying alternative investments, specifically hedge funds and fund-of-fund equivalents, to traditional portfolios. The course will also address the role of real estate, private equity, and real assets such as commodities and infrastructure within traditional portfolios.

The three primary goals of this course are for students to:

- Understand the objectives, constraints and structural issues facing corporate and public pension plans;
- Appreciate the role of liquid alternative and real assets within pension portfolios;
- Learn a robust manager selection, portfolio construction and investment process for alternative investments in pension plans;

Aside from students who are looking to pursue careers in corporate or public pension plans, those interested in alternatives, traditional investing, fund of funds, consulting or alternatives research, equity research, sales, trading and banking would benefit from this course. In summary, any practitioner, investing in Alternatives or with clients investing in Alternatives, would be a beneficiary of the knowledge imparted from this course.

**COURSE OBJECTIVES**

The professor will provide extensive practitioner insights, as well as theoretical and empirical examples of the concepts covered. The course will be a combination of lectures, class participation, and student projects. The professor will present and discuss the key concepts in lecture format. Students will be encouraged to ask questions and participate in class discussions to a significant extent. There will be a sell-side, or alternative oriented mid-term examination and a buy-side, or pension fund/family office oriented final examination. Finally, the professor will invite industry leading alternative asset management practitioners, including alternative portfolio managers and pension Chief Investment Officers, who will expound on the most topical issues in alternatives assets and institutional portfolio management.
After the course sessions, for those students who have not yet secured internships or post-graduate roles, the professor will provide students with mentoring advice and introductions to successful industry leaders to help them secure these roles.

**GUEST LECTURERS**

Guest lecturers at a similar course that the professor taught in the Spring 2013 included Scott Bessent (CIO of Soros), John Bader (CIO of Halcyon), Seth Turkeltaub (PM at Millenium), Carol McFate (CIO of Xerox Pension Plan), Richard Sabo (CIO of JP Morgan Pension Plan) and other distinguished speakers.

The guest lecturers in this course are expected to be different. Kyle Bass (CIO of Hayman), John Levin (CIO of Levin Capital Strategies), Barry Rosenstein (CIO of Jana) and Dan Loeb (CIO of Thirdpoint) are possible lecturers having expressed an interest subject to scheduling and availability. Thought leading pension CIOs are also expected. There are expected to be three or four significant lecturers, and possibly a panel, one at each class other than the mid-term and final classes.

**ASSIGNMENTS**

**Case Studies – Mid-term and Final:**

The students will be asked to present two case studies in small groups. The students will work in small teams, arranged individually or by the professor (TBD). The case study format of the case studies will be as follows:

**Mid-Term – An Alternative Strategy and Manager Recommendation:**

Each team will present a recommendation with regard to an alternative strategy and individual manager. The team should assume they are delivering the recommendation to the Chief Investment Officer or Investment Committee of a pension fund. The recommendation should include an overview of the strategy. The team should consider the market environment in which a given strategy is likely to perform well or poorly. Finally, the team should present an individual manager (i.e. hedge fund or other alternative manager) to implement the strategy within a portfolio.

The strategy will be agreed upon with the professors and may include one of the following: Global Macro, Relative Value, Equity Long/Short, Credit or Real Assets.

Each team will submit electronically and present mid-term case studies at the mid-point session in the course.

**Final Case Study – A Pension Plan Asset Allocation Recommendation:**

Each team will present an investment recommendation to a specific corporate or public pension plan. The team should assume they are delivering the recommendation to a Chief Investment Officer or Investment Committee of a pension fund. The recommendation should consider all relevant factors for the asset owner. The recommendation should involve a change in the overall asset allocation, as well as implementation or liquidation of a specific traditional or alternative strategy.

The pension fund will be agreed upon a priori with the professors.

Each team will submit electronically and present final case studies on the last day of the course.
<table>
<thead>
<tr>
<th>Type</th>
<th>Designation</th>
<th>Discussion of concepts</th>
<th>Preparation of submission</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>group / group</td>
<td>Permitted with designated group</td>
<td>By the group</td>
<td>Same grade for each member of the group</td>
</tr>
</tbody>
</table>

METHOD OF EVALUATION

The final grade for graduates will be determined as follows:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Impact on grade</th>
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</thead>
<tbody>
<tr>
<td>Mid-Term Case Presentation</td>
<td>30%</td>
</tr>
<tr>
<td>Final Presentations</td>
<td>40%</td>
</tr>
<tr>
<td>Class Attendance &amp; Participation</td>
<td>30%</td>
</tr>
</tbody>
</table>

CLASSROOM NORMS AND EXPECTATIONS

Class Meeting and Attendance:

Class attendance is mandatory and highly recommended in terms of achieving a top quartile grade. If a class is missed, fellow students should be consulted on what was accomplished during the class time that was missed, and handouts for that day’s session should be collected (before or after). There may also be a video recording that can be watched.

We expect students to be current on financial market activity. Recommended recurring periodical reading includes; The Wall Street Journal, the business section of the New York Times, The Financial Times and Barron’s.

Electronic devices may be used in the class room other than when guest lecturers are in at which times they are forbidden.

Office Hours – The professors will be available during the break and before and after class (as late as needed).

Class Schedule:

1. First Class

Overview: Hedge Funds in Pension Plans

- Introduction
• Value of Hedge Funds in Institutional Portfolios Versus Traditional Active Managers
• Statistical Analysis of Performance Results and Risk Analysis

Key Questions:

• How do hedge funds generate alpha?
• How can hedge funds improve the risk / return profile of institutional portfolios?
• How does one analyze hedge fund returns and risk?

Guest Speaker – Equity Long/Short: John Levin, Levin Capital Strategies

2. Second Class

Overview: Hedge Fund Manager Selection Process for Pension Plans

• Hedge Fund Manager Selection Requirements
• Manager Research Interview Process and Research Report
• Operational Due Diligence, Business and Investment Risk analysis
• Hedge Fund Life Cycle, Balance of Power and Fund Structures

Key Questions:

• How does one select hedge fund managers?
• How does one write a manager research report?
• What are the most important elements of Operational Due Diligence?
• What is the hedge fund life cycle like?
• How has the balance of power shifted in the hedge fund industry?

Guest Speaker – Macro Investing: Kyle Bass, CIO, Hayman

3. Third Class

Overview: Alternative Portfolio Construction and the Investment Process for Pension Plans

• The Intermediary Alternatives
• Portfolio Construction
• Case Study – The Impact of Dispersion, Correlation and Volatility on Fundamental Long/Short Managers
• Benefits of Adding Hedge Funds to International Pension Portfolios
• Investment Process for Pension Plans
• Summary

Mid-term Case Study & Presentations
Key Questions:

- What are the intermediary alternatives, and their advantages/disadvantages?
- How does one construct a liquid alternative portfolio?
- How do variables such as Dispersion, Correlation and Volatility impact manager returns?
- What are the benefits of adding hedge funds to international portfolios?
- What is the investment process for pension plans?

4. Fourth Class

Overview: Real Assets in Pension Plans

- Private Equity/Leveraged Buyouts
- Real Estate - Public vs. Private
- Real Assets: Timber, Commodities, CTAs
- Infrastructure Assets

Key Questions:

- What are the advantages and disadvantages of private equity, real estate (public vs. private) and other real assets?
- How does the illiquidity of most real assets (non commodity and public real estate) impact portfolio construction and returns?
- What other benefits - such as inflation hedging, dollar hedging, etc. – should institutional investors consider in investing in Real Assets?

Panel: Senior investment managers from private equity, real estate, and / or other real assets managers

5. Fifth Class

Overview: Pension Plans

- Pension Plans: Investment Goals and Constraints
- Corporate DB Plans
  - Funding Levels: History and Trends
  - Asset Allocation: Liability Driven Investing
  - Pension Protection Act of 2006- constraints and impact
- Public DB Plans
  - Funding Level: History and Trends
  - Expected Rate of Return (Median 8% target)
International Plans – Allocation and interest in alternatives

Key Questions:

- How do the different goals and constraints of pension plans impact their asset allocation, especially as it relates to alternatives?
- What is an appropriate allocation to alternatives for corporate plans? Public plans?
- How do alternatives fit into an LDI framework for corporate plans?
- How do structural issues such as size, investment capability, and governance constraints impact an asset owner’s ability to invest in alternative assets?

Reading: “Honeywell Corporation: An Introduction to Corporate Pension Plans” (Columbia Caseworks, 2013)

Panel: Public or Private Pension Fund CIO, or panel – TBD.

6. Sixth Class

Overview: The Investment Process for Pension Plans

- Summary
- Key principles and practices
- Issues and considerations for global pension plans
  a. Australia Superannuation Funds
  b. Latin America: Mexico, Brazil
  c. Japan
- Areas for more thorough exploration

Final Case Study & Presentations
For two decades Michael has invested directly at the security level and indirectly as an asset allocator in traditional and alternative asset classes. Currently he is Chief Investment Officer of MOW & AYW LLC. and an Adjunct Associate Professor of Economics and Finance at Columbia Business School. At MOW & AYW LLC. he provides bespoke multi-asset/strategy investment solutions. At Columbia Business School he has taught Institutional Investing: Alternatives in Pension Plans.

He has spent the last nine years at FRM, a diversified multi-strategy fund of fund where he headed the equity business and was involved in the investment, asset allocation and management of the business. Prior to that, he was an equity and event long/short portfolio manager at Soros, the macro fund and family office, and a multi-strategy prop desk and hedge fund, Modal Capital Partners, at Credit Suisse First Boston. Before that he was a Real Estate analyst at Dean Witter. Over his career he has also been involved in investments in Private Equity, Venture Capital, Credit, RV, Macro, Commodities and Infrastructure investing.


He is a volunteer at the Columbia Business School Hermes Society and a mentor and events committee member for YJP, a not for profit young professional organization. Michael is a published author and a frequent panelist, moderator and lecturer for investment banks, Family Office organizations, business schools, including the London School of Economics, and SALT. Michael has a BS from New York University, an MBA from Columbia Business School and is a CFA charter holder.
Karl Mergenthaler, CFA is an Executive Director in the J.P. Morgan Investment Analytics & Consulting Group. His principal responsibility is to provide analytical and consulting services to pension funds and other institutional investors.

Karl has more than 12 years of experience in the financial services industry. Prior to joining J.P. Morgan in 2007, Karl was an equity analyst and portfolio manager at Avatar Associates, where he was actively involved in the management of portfolios of Exchange Traded Funds (ETFs). Previously, Karl was an equity analyst at Banc of America Securities responsible for the machinery industry.

Karl has published numerous articles including “Commodities – Where do They Fit?” (J.P. Morgan’s Thought Magazine, Spring 2010), “Active Currency Management for Institutional Investors” (P&I Online, 2010), “How Quants Stack Up against Fundamentals” (Pensions & Investments, January 7, 2008) and “An ETF Solution for 401 (k) Plans” (Plan Sponsor, October 2006). Karl has been quoted by numerous publications including Bloomberg, Fundfire, and others.

Karl is a Chartered Financial Analyst (CFA) and a member of the New York Society of Security Analysts (NYSSA). Also, he is a Certified Public Accountant (CPA). Karl earned a B.A. degree in economics from Wesleyan University (1992) and an M.B.A. in finance from Columbia Business School (1998).
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