Columbia Business School

Investment and Wealth Management
(B 7399 -- Fall 2009)

Contact:
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Practical Details:
Class times: See schedule on ANGEL.
Prerequisites: Capital Markets (B7302)

COURSE DESCRIPTION :
The course explores the challenges and analytics that are common to the practice of asset and private wealth management. Institutional portfolio management and asset allocation are different from private wealth management. This course will be of great interest to anyone aspiring to a career in asset, portfolio, private wealth, endowment, and fund management. As the course is intended to provide a fundamental understanding of the issues in asset management, whether institutional or private, students will benefit from the broad applicability of the course to other areas of finance such as investment banking, insurance, accounting and personal finance. The course will include finance theory, statistical analysis and basic optimization theory, mirroring the investment management industry's increased reliance on quantitative methods.

The class material is organized into 3 segments that are integrated throughout the course:

I. Institutional Investment Management and Global Asset Allocation
II. Personal Wealth Management
III. Mutual Funds and Individual Asset Management

An individual's wealth can be managed directly or indirectly. The first segment of the class takes the perspective of the corporate pension fund. A corporate pension fund faces an asset allocation problem (how much money to assign to different asset classes?), a portfolio manager selection problem (which professionals should manage the money?), and a performance measurement problem (how well have the professionals performed?).

Similarly, asset allocation, manager selection, and performance measurement issues are implicated in individual wealth management. But unlike institutional investment management, individual wealth management is challenged by the impact of taxes, legal location of the assets, wealth transfer, and behavioral factors.

We will introduce the state-of-the art techniques used by quantitative asset managers, primarily the Black-Litterman model developed at Goldman Sachs. Another major trend affecting the industry is globalization which has led to the international diversification of portfolios. We will devote special attention to the problem of global asset allocation and use international data to illustrate the quantitative tools used in the industry.

Although closely related, Private Wealth Management has developed as a field of research and practice that is distinctly separate from portfolio management and institutional asset allocation. The challenges introduced by the increasing level of private wealth, need for tax efficiency, including issues relative to inheritance and charitable giving, as well as psychological and behavioral issues differentiate the practice of Private Wealth Management. Since the instructor has no special expertise in this area, Ann Kaplan, former partner at Goldman Sachs, will organize two sessions on Private Wealth Management.

With the increasing importance of defined contribution plans, the responsibility of asset allocation has shifted to the individual. Financial planning for individuals has been revolutionized recently as more and more sophisticated advice has become available. For most individuals, investments consist of portfolios of mutual funds which are professionally managed portfolios. Because mutual fund companies run both institutional and retail portfolios, the mutual fund industry forms a natural bridge between Parts I (Institutional Asset Management) and III on Individual Asset Management.

COURSE MATERIALS:

- Class notes (to be made available through *Angel*);
- *Course Readings,* bound volumes of readings, if not already received during the course's pre-term mailings, can be picked up from Office of Operations, Warren (to be confirmed);
- Case materials to be distributed in class;
- A testbank with problems will be posted on *Angel*. The testbank questions provide a good preparation for the quiz.
- Some chapters in Bodie, Kane and Marcus, (Irwin McGraw Hill), the text for Capital Markets (B7302), should prove useful for better comprehension of investment analytics.
- Recommended books:
    - The Intelligent Portfolio by Christopher L. Jones. This book will be a nice complement to a number of classes and is also dirt cheap.
    - International Financial Management, by Geert Bekaert and Robert Hodrick.

METHOD OF EVALUATION/COMPONENTS OF THE GRADE

Most assignments for this class will be conducted within groups of 3 to 5 people. The groups are to be the same for all cases / assignments and the group members will rate each other's contribution at the end to avoid free riding. The groups should be formed as soon as possible, preferably in the first week.

1) Case Write Ups (60%)

For almost every session taught, there will be a case. This could be a genuine Harvard case (for example the Harvard Management Company case) or it could be a mini-case or exercise written by the instructor (for example the G7 Global Asset Allocation Case). Each case is accompanied by a set of questions that have to be answered in a formal document, written by the group. This document must be handed in at the beginning of the class in which the case is discussed. Because the class notes contain the case solution, no late assignments are accepted. The Cases and due dates will be clearly listed on ANGEL. The Syllabus below has a preliminary schedule, but please, check ANGEL regularly for updates.

Formal write-ups are expected for EVERY case, but:

a) Only 4 cases will be graded. The total grade for the group will be based on the best three cases, the worst case will not count towards your grade.
b) Each group can elect to not submit one case. If the case is among the ones graded, obviously, each one of the other 3 cases will count towards your grade.

Nevertheless, learning will be maximized when groups prepare the cases thoroughly on a consistent basis.

2) Quiz (25%)

I will hold a 45 minute to 1 hour quiz. The quiz will primarily test your knowledge of the concepts taught in class. If you attend class and do the work, it should be rather straightforward to pass with flying colors. The quiz simply allows me to better "personalize" your grade. We will schedule the quiz towards the end of the class. Because it is totally open book, we will likely use a "time-stamped" take-home format.

3) Class participation (15%)

I take a broad view of class participation. For example, a consistently excellent performance on the cases even the ones that I do not grade, may contribute to a higher grade. Similarly, I value attendance, as I do no think you can really appreciate the class with a spotty attendance record.

PRELIMINARY OUTLINE:
(10.5 sessions of 2 hours 50 minutes)
The outline is highly preliminary and subject to change. Readings will be added as we go on and the outline will be updated on ANGEL. Classes denoted with an asterisk are likely to be "equation-intensive," extra caffeine dosage highly recommended. Readings marked as "Background materials" are not required reading. The first two weeks, Professor Bekaert will organize a review session with a TA reviewing statistical and mathematical concepts that are essential to the course.

Session 1 (Sept. 11, 12:35–3:20)
Introduction to Asset Management
Concepts and Techniques

The Asset Management Industry
Introduction to Wealth Management
Review of Concepts/Techniques of Modern Portfolio Management
Review of Mean Variance Optimization (with Matrix Algebra), using the Harvard Management Case as an illustration*
Introduction to Strategic Asset Allocation

Materials:

- **READ BUT DO NOT SOLVE THE HARVARD MANAGEMENT CASE**
- Class Notes
- Bekaert-Hodrick textbook Chapter 13 on International Capital Market Equilibrium, Sections 13.1, 13.2 and 13.3

- Harvard Case 9-201-053: The Harvard Management Company and Inflation-Protected Bonds

Background Material:

- Bodie, Kane, Marcus (5th Edition), Chapters 7, 8
- Jones, Chapters 1, 5

Session 2 (Sept. 26, 12:35-3:20)
Concepts and Techniques/Strategic Asset Allocation

Mean Variance Optimization continued
Strategic Asset Allocation at HMC

Materials:

- **WRITE UP HARVARD MANAGEMENT CASE DUE**
- Class Notes
- Harvard Case 9-201-053: The Harvard Management Company and Inflation-Protected Bonds
- Bekaert-Hodrick textbook Chapter 13 on International Capital Market Equilibrium, Section 13.3

Background Material:

- Bodie, Kane, Marcus (5th Edition), Chapters 7, 8
- Jones, Chapters 2, 8

Session 3 (Oct. 9, 8:45-11:35)
The Case for International Diversification
Intro to Global Asset Allocation and the Black-Litterman Model

The Case for International Diversification
The G7 Case: Introduction

Materials:

- Class Notes
- Bekaert-Hodrick textbook Chapter 13, Sections 1 to 5

Session 4 (Oct. 10, 3:40-6:30)

The G7 Case
Review of CAPM*

Materials:

- **WRITE UP G7 CASE DUE**
- Class Notes
- Black, Fischer, and Robert Litterman, "Global Portfolio Optimization," *Financial Analysts Journal*, September – October 1992
- Bekaert-Hodrick textbook Chapter 13 on International Capital Market Equilibrium, Sections 13.4 and 13.5

Background Material:

- Bodie, Kane, Marcus (5th Edition), Chapter 9

- Jones, Chapters 3 - 4

II. Personal Wealth Management

Session 5 – led by Ann Kaplan (Oct. 23, 3:40-6:30; Note the Oct. 24, has been CANCELLED, see below for make – up class)
Topics and outside speakers to be announced

Session 6 (Nov. 6, 12:35-3:20)
The Black-Litterman Model or: Idiosyncratic Risk

The Black-Litterman Approach to Asset Allocation*
Applications:

- Stock Selection Model
- HMC Strategic Asset Allocation

Materials:

- **WRITE UP ON BLACK-LITTERMAN CASE OR IDIOSYNCRATIC RISK CASE DUE**
- Black, Fischer, and Robert Litterman, "Global Portfolio Optimization," *Financial Analysts Journal*, September – October 1992
- The BP-Amoco Case (Idiosyncratic Risk)

Background Material:

- Jones, Chapters 3, 4, 6

Session 7 (Nov. 12, 6:00-9:00 pm)
Ann Kaplan's replacement class – Warren 310 (tentative)
Topics and outside speakers to be announced

Session 8 (Nov. 21, 8:45-11:35)
Emerging Equity Markets

Emerging Equity Markets
Performance Measurement: Introduction

Materials:

- **WRITE UP ON EMERGING MARKET CASE DUE**
- Class Notes

Background material on emerging markets:

- Geert Bekaert and Campbell R. Harvey, Emerging Markets Finance, *Journal of Empirical Finance*, 2003. http://www-1.gsb.columbia.edu/faculty/gbekaert

Session 9 (Dec. 5, 8:45-11:35)
Emerging Markets Wrap-Up
Currencies

Wrap-Up Emerging Markets
Currencies in Global Asset Allocation and Currency Hedging

Materials:

- Class Notes
- Background material on currencies:
  Greene, Philip, "Is Currency Trading Profitable? Exploiting Deviations from Uncovered Interest Rate Parity," *Financial Analysts Journal*, July-August 1992

Background Material:

- Jones, Chapters 3, 7, 9

III. Mutual Funds and Individual Asset Management

Session 10 (Dec. 11, 8:45-1:55; note long session)
Performance Measurement
The Mutual Fund Industry
Personal Investing

Performance Measurement and Style Analysis
The Magellan Case
The Mutual Fund Industry
The market for individual advice and the quantitative revolution
Talk on Financial Engines

Materials:

- **WRITE UP MAGELLAN CASE DUE**

Background Material:

- Sharpe, William F. "Asset Allocation: Management Style and Performance Management," *Journal of Portfolio Management*, Winter 1992
- Jones, Chapters 1, 5, 10, 11
- Bodie, Kane and Marcus, Chapters 1 - 3