

Capital Markets - B7306-001-2022 - MENU A
Summer 2024
Fridays and Saturdays

PROFESSORS MARK ZURACK

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TEACHING ASSISTANT:

REQUIRED COURSE MATERIAL

Investments

Zvi Bodie, Alex Kane, and Alan J. Marcus, twelfth edition (BKM)

Selected Readings are on electronic reserve and accessible through the Study.net (SN) and Library Reserves (LR) tabs in Canvas. The Yale case and GM cases can be accessed by control clicking in the electronic version of the syllabus or single clicking in the Canvas folder class description where the case titles are referenced under the Readings heading. The article on Options Strategies can be accessed by clicking the Canvas "Files" tab and then clicking on the "D. Miscellaneous" folder.

COURSE DESCRIPTION AND OBJECTIVES

This course has two purposes: (1) To introduce the principles of asset valuation from an applied perspective, and (2) To introduce different techniques to manage investment portfolios.

It is designed to provide you sufficient background to understand current events in Global Markets, take more advanced Markets classes in the school, as well as provide a framework to manage your own assets.

The course breaks down into four areas:

Asset Allocation - Reviews different quantitative techniques used to measure returns and risk. Compares long term behavior of different asset classes and how investors allocate their wealth across Asset Classes.

Equity Markets - Covers theory on measuring expected returns and risks of individual stocks as well as constructing stock portfolios. We also touch on the different forms of both active and passive investing.

Fixed Income Markets - Teaches basic bond valuation focusing on the yield curve as well as notion of forward rates as well as the evaluation of credit risk.

Derivatives Markets - The valuation and use of options, futures and swap markets are introduced.

The materials will be delivered through a combination of lectures, guest speakers, case studies and readings.

ASSIGNMENTS

All assignments must be completed in writing and submitted on Canvas before class. For group assignments, one submission per group is appropriate. For assignments that require group and individual work, please include all of the individual work in the group submission.

METHOD OF EVALUATION

Class Attendance and Participation	20%
Assignments	20%
Take-home Exam (in 2 parts)	35%
Final Project	25%

Notice that there is a Final Project in the Method of Evaluation. The Final Project is an oral presentation in response to a case study we will hand out toward the end of the semester. Each group will meet with me on Zoom for 30 minutes to present your project. Attendance is mandatory.

PRE-CLASS CHATS

Beginning this semester, I have added a series of video-chats for many of the classes. The chats will be available in advance of when the class is given. They are designed to provide background information on the topic we are discussing. For those of you new to financial markets, I hope they will be useful.

COURSE OUTLINE

1. The Tools of Investing/Asset Allocation (05/10 - 3:45-6:45)

After a brief introduction, the class explores the metrics used to evaluate public investments. We go over return measures like Arithmetic and Geometric averages, and risk measures like Variance, Standard Deviation and Correlation. We then define what an Asset Class is, and the different Asset Classes used to construct an investment portfolio.

Readings:

- Chapter 5, pp. 133-140, BKM
- Issues in Strategic Asset Allocation (Litterman, Robert B.), pp. 104-109 (SN)

2. Asset Allocation (05/18 - 3:45-6:45)

This class explores how to determine what percent of an overall portfolio should be allocated to each asset class. This requires understanding not only the returns and risk of each asset class, but also how the correlation of different asset classes affects the overall risk of the portfolio.

If there is time, we move to Equities, the asset class investors spend the most time on.

Assignments: Assignment (1) - The Math Behind Capital Markets - Individual

3. Yale Case/Equities and Efficient Markets (06/01 - 8:30-11:30)

By studying the issues faced by the Yale Endowment Fund, the first half of the class attempts to give you a real-world perspective on how a large Endowment Fund allocates its assets.

The class then moves to Equities, starting by describing the terminology and metrics used to construct and evaluate Equity Portfolios. Then we begin a discussion on Stock Market Efficiency.

That discussion focusses on whether it is possible to outperform the stock market through Active Management. We then try to demonstrate that the market portfolio is the superior Passive portfolio. This brings us to the Capital Asset Pricing Model (CAPM), a theory which is the basis of modern investing.

Readings:

- Yale Investments Office: November 2020 (<https://hbsp.harvard.edu/tu/961e947e>)
- The Yale Endowment 2020 (Yale University) (LR)
- Should You Invest Like a University Endowment? (Forbes, 2022) (LR)
- The Arithmetic of "All-In" Investment Expenses (Bogle, John C.) (LR)
- If You Can't Beat 'Em (Silver, Nate) Chapter 11, pp. 329-369 (SN)

Extra Reading - Chapter 9 - BKM

Assignments:

Assignment (2) - Questions on Yale Case/Asset Allocation Portfolio - Group/Individual

4. Outperforming the Stock Market (Trying) (06/14 - 8:30-11:30)

This class reviews the techniques Active Equity Managers use to outperform the stock market. We start with Fundamental Analysis, led Active Equities

We then move to Quantitative or Factor/Smart Beta Investing, incorporating the GM case into our discussion. Many of these strategies are based on potential market inefficiencies resulting from biases in investor behavior.

Readings:

- GM Asset Management and Martingale's Low Volatility Strategy (<https://www8.gsb.columbia.edu/caseworks/ProfessorMarkZurack/29790>)
- [Why Did Wall Street Crash and Warren Buffet Prosper?](#) (Cain, Susan) (SN)
- [Investor, Know Yourself](#) (Statman, Meir) (LR)

Assignments:

Assignment (3) - Portfolio Analysis/GM Case - Group

5. Indices/ Exchange Traded Funds and Equity Trading (06/15 - 3:45-6:45)

This class focusses on the process of investing in Equities. For Passive Investors, that starts with choosing an index. Many investors then choose an Exchange Traded Fund, one of the great financial innovations in the 21st century to invest in the index.

We end by exploring how Equities are traded and short sales executed.

Readings:

- Chapter 1, pp. 47-51 - BKM
- Chapter 3, pp. 67-77 - BKM
- Chapter 4, pp. 112-114 - BKM

6. ESG and Sustainable Investing in Equities Markets (06/28 - 3:45-6:45)

We end Equities with a general discussion on the state of ESG and Sustainable Investing, followed by a review of the topics covered in classes 1-6.

Reading

- Generation Case
- On Climate and Conscience

Discussion Questions - In Canvas, please review after reading On Conscience and Generation cases/articles. DO NOT ANSWER IN WRITING

Exam: Part 1 handed out

7. Introduction to Fixed Income/Yield Curve and Forward Rates (07/12 - 12:30-3:30)

The course moves on to Fixed Income Markets. We review the different types of Fixed Income securities. Then we show why a bond's price must be the present value of its coupons and return of principal. We review the relationship of prices and yields and discuss reinvestment and early unwind risk.

We continue class by introducing the notion of a yield curve. That brings us to forward rates, their computation and interpretation. We use this knowledge to understand the expected future return of owning bonds.

Readings:

- Chapter 14, pp. 439-441, 446-461 - BKM
- Chapter 15, pp. 481-488 - BKM

Exam: Part 1 due**8. Duration and Convexity and Credit Risk (07/13 - 12:30-3:30)**

The class explores the use of Duration as a measure of bond price sensitivity to interest rate changes. We examine how this measure can be used to assist in the risk management of a portfolio of bonds.

We then review Corporate Bonds and how Credit Risk is considered in bond pricing.

Readings:

- Chapter 16, pp. 509-522 - BKM

9. Distressed Debt and Fixed Income Portfolio Management (07/26 - 12:30-3:30)

Michael Gatto, an Adjunct Professor at CBS, and Partner at Silver Point Finance, leads the class through the Hostess case which introduces Distressed Debt, a hybrid of Equities and Fixed Income.

Then we explore different ways Fixed Income portfolios are managed.

Guest Speaker: Michael Gatto, Silver Point Finance

Readings:

- How Hostess Failed

Assignments:

Assignment (4) - Hostess Case - Group, Bond Pricing - Individual

Exam: Part 2 handed out**10. Introduction to Derivatives and Options Valuation (07/27 - 8:30-11:30)**

After providing a general introduction to Derivatives, this class focusses on Options, starting with basic strategies and valuation. Although options pricing can be complex, I try to provide intuition on what drives pricing leaving out the higher mathematics.

Readings:

- Chapter 2, pp. 54-56 - BKN
- Chapter 20, pp. 679-683 - BKM
- Chapter 21, pp. 715-721 - BKM

11. Options Strategies/Futures and Swaps (08/09 - 8:30-11:30)

After completing Options Valuation, the class reviews the Options Strategies most frequently followed by investors. Then we discuss the valuation of Stock Index Futures and the use of Swaps in Equity, Interest Rate and Credit Markets.

Exam; Part 2 due

Assignments:

Assignment (5) - Options Valuation - Group

Readings:

- Chapter 20, pp. 683-690 - BKM
- [Tutorial on Using Options in Active Strategies](#) (Tsu, Maria E.) (LR)

12. Events That Shaped Capital Markets (08/10 - 12:30-3:30)

We start the class ends a discussion of Market Events that show some of the vulnerabilities in the Capital Markets. We end the course with a broad discussion on the future of Capital Markets.