

Investments, Winter 2010

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1 Course Description

This course offers the financial theory and quantitative tools necessary for understanding how stock, bond, and option prices are determined, and how financial assets are used for investment decisions. Topics covered include modeling the relation between risk and return, optimal portfolio selection based on mean–variance analysis, asset pricing models, money management, practical asset allocation, and more. The focus is mainly on common stocks, but fixed income securities (bonds) and derivative securities (options, futures, swaps) are also analyzed.

The course is quantitative and challenging. Rather than delving into the details of current practice, it takes a rigorous and critical view to the process of investing. The aim is to provide the students with a lasting conceptual framework in which to view and analyze investment decisions. At the same time, the course will discuss alternative philosophies of investing, and relate the material to current financial news and to problems relevant to the practitioner.

2 Prerequisites

You will need the knowledge of the first year Microeconomics and Econometrics sequences.

3 Office Hours

I do not have a specific office hour, but you are welcome to stop by my office if you have any questions. If you want to make sure that I am there and I am available, send me an e-mail first to kondorp@ceu.hu. I also encourage you to share with me any comments you might have on the course.

4 Course Web Page

I will set up the course Web page on the courses section of my webpage

http://www.personal.ceu.hu/staff/Peter_Kondor/courses.htm

5 Grading

The course requirements are the Final exam, four graded Homework assignments, and a case write-up. Midterm is optional. If you hand it in, it counts, but you can decide not to hand it in even if you take it. There will be six Homeworks but only the best five will count. Weights on the various components of the final grade are as follows:

	<u>Method A</u>	<u>Method B</u>
Problem Sets	20%	20%
Bear Stearns Case Write-up	5%	5%
Midterm exam	-	30%
Final	75%	45%

I do not explicitly give marks for class participation. However, it will count in marginal cases.

6 Exams

There will be a final exam. This exam will be open-book. Calculators are permitted, except those with word-processing capabilities.

7 Homework and Case Assignments

Six homework assignments will be given, which consist of problems and several applications to real data. The latter are designed to apply techniques

learned in the course to real data in a manner similar to what might be applied in practice. Keep in mind that exam questions will be similar to the assigned homework problems. Only the best four problem sets count. Note that case write-ups are separate from the homework assignments.

There will be two case write-ups in this course, but only the first one is mandatory. Details of these assignments will be provided later.

You may do the homework problems and the case write-ups in groups that are not to exceed FOUR people. The case write-up is not to exceed four typed pages.

8 Course Materials

8.1 Required Text

1. Bodie, Zvi, Alex Kane, and Alan Marcus, Investments, McGraw-Hill, 8th Edition (BKM).

8.2 Recommended Texts

1. Malkiel, Burton, A Random Walk Down Wall Street, Norton, 8th Edition, 2004 (RWDWS);
2. Siegel, Jeremy, Stocks for the Long Run, McGraw-Hill, 3rd Edition, 2002 (SLR).

The recommended texts will not be explicitly employed in the course, but may provide additional insight into some of the topics covered. They are available e.g. on Amazon.co.uk .

8.3 Course Packet

The packet contains some relevant articles from practitioner as well as academic journals. Some of the articles are required and some are optional, as detailed later in the syllabus. I will require you to read only the relevant material that is within your reach. Nevertheless, students planning on a finance career are encouraged to read through the packet in its entirety.

8.4 Lecture Slides and Handouts

When presenting the class material, I tend to follow my lecture notes. These notes are not included in the packet, because I often update them with new information shortly before class. I will make these notes available to you not later than the last Friday before each class.

Practice exams will also be posted on the class web page prior to the exams. I may also periodically hand out current newspaper and magazines articles relevant to the course topic.

8.5 Course Outline and Readings

This an *approximate* schedule of topics that will be covered. You should read the corresponding material in the text prior to the lecture. “BKM” refers to the book by Bodie, Kane and Marcus; “RWDWS” refers to the book by Malkiel; and “SLR” refers to the book by Siegel. Unless otherwise stated, the listed articles are included in the course packet. Required readings are denoted by **R**, and optional readings are denoted by **O**.

Week One – *Risk and Return; Asset Pricing and Present Value*

Course Outline and Introduction

Overview of Financial Markets

Risk and Return

Asset Pricing and the Present Value Formula

BKM, chapters 1, 2, 3 (**R**: all), chapter 18 (**O**) RWDWS, chapters 5, 13 (**O**) SLR, chapters 1, 2 (pp. 25–34), 5, 6, 9 (**O**)

Week Two – *Fixed Income*

Bond Prices and Yields

The Term Structure of Interest Rates

Duration Matching and Immunization

BKM, chapters 14, 15 (**R**: all), 16 (**R**: sections 1–3) *Grading Bonds on Inverted Curve*, Wall Street Journal, January.8, 2007 (**R**), Salomon bond scandal, Time (**R**)

Practice session

Week Three – *Asset Allocation; Mean–Variance Analysis*)

Problem Set #1 Due (beginning of class)

Risk and Risk Aversion

Asset Allocation

Portfolio Theory and Mean-Variance Analysis

Diversification

BKM, chapters 6, 7 (**R**), Barberis, *Asset Allocation—Have Investors Got It Wrong?*, FT, Jun.1, 1997 (**O**), RWDWS, chapter 9 (**O**) SLR, chapters 2 (pp. 36–41), 10 (**O**)

Practice session

Week Four – CAPM

Problem Set #2 Due (beginning of class)

The Capital Asset Pricing Model (CAPM)

Applications of CAPM

BKM, chapter 9 (**R**) BKM, section 13.1 (**R**) RWDWS, chapter 10 (**O**)

Practice session

Week Five – *Practical Asset Allocation*

Problem Set #3 Due (beginning of class)

Harvard Management Company

International Investments

The Black and Litterman Model

Life-Cycle Investing

BKM, chapter 25, 26 (**O**: all) Light, *Harvard Management Company*, Harvard Business School Case, 2000 (**R**) Black and Litterman, *Global Asset Allocation With Equities, Bonds, and Currencies*, Journal of Portfolio Management, Oct. 1991 (**O**), RWDWS, chapters 12, 14 (**O**) SLR, chapter 21 (**O**)

Week Six – APT

Midterm

Multifactor Models and the Arbitrage Pricing Theory (APT)

BKM, chapters 10 (**R**: all) BKM, sections 13.2, 13.3 (**R**: all) Cochrane, *New facts in finance*, Economic Perspectives, 1999 (**R**), Fama and French, *The Cross-Section of Expected Stock Returns*, Journal of Finance, Jun. 1992 (**O**)

Practice session

Week Seven – *Market Efficiency and Anomalies*

Problem Set #4 Due

Market Predictability

The Efficient Market Hypothesis; The Random Walk Hypothesis

Anomalies; Bubbles and Market Crashes

Behavioral Finance

BKM, chapter 11, 12 (**R**) BKM, sections 13.4, 13.5, 13.6 (**O**) Thaler, *The End of Behavioural Finance*, Financial Analysts Journal, 1999 (**R**), Seeking an Edge, Big Investors

Turn to Network of Informants, WSJ, November 27, 2006 (**R**), Shleifer, Vishny, *Contrarian Investment, Extrapolation, and Risk*, Journal of Finance, 1994(**O**), RWDWS, chapters 2, 4, 6, 7, 8, 11 (**O**) SLR, chapters 17, 18, 19 (**O**)

Week Eight – *Money Management Industry; Forwards, Futures and Swaps*

****Bear Stearns Case due****

The Money Management Industry and Performance Evaluation
Forwards, Futures, and Swaps

BKM, chapter 4 (**R**), 24 (**O**), 22 (**R**), 23 (**O**) Stowell, Investment Banking in 2008: Rise and Fall of the Bear (**R**), Davis, *Blue Flameout: How Giant Bets on Natural Gas Sank Brash Hedge-Fund Trader*, Wall Street Journal, Sep.19, 2006 (**R**), *Deutsche Bank Fallen Trader Left Behind \$1.8 Billion Hole*, WSJ, February 6, 2009 (**R**), SLR, chapter 20 (**O**)

Practice session

Week Nine – *Derivatives; Option Pricing*

****Problem Set #5 Due**** (beginning of class)

Derivatives Markets

Option Pricing

BKM, chapters 20, 21 (**R**: all), Gladwell, *Blowing Up: How Nassim Taleb Turned the Inevitability of Disaster into an Investment Strategy*, New Yorker, Apr.22, 2002 (**R**), Stuart, *Eight Days*, New Yorker, September 21, 2009, (**R**), RWDWS, Supplement, and Appendix to Supplement (**O**) SLR, chapter 15 (**O**)

Practice session

Week Ten – *Lessons on Investing; Hedge Funds, Investments and the Macroeconomy*

****Problem Set #6 Due**** (beginning of class)

Bubbles

Hedge Funds and Crashes

The financial crisis and the case of the Bear Stearns

Macroeconomic Analysis

BKM, chapter 17 (**R**), SLR, chapters 12, 13, 14 (**O**)

Week Eleven – *Final Exam*

****FINAL EXAM***