

Bilkent University
Department of Economics

ECON 408
Financial Economics
Fall, 2002

Instructor: Erdem Başçı
Phone: 1469
Class Hrs: Fri 8:40, 9:40, 10:40
Office Hrs.: Wed 8:40, 9:40, Thu 10:40
Class Room: B109
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Course Objective

This course is an overview of asset pricing theories. What determines the rate of return of stocks, bonds, options and money? What are the differences between expected and realized returns? What is risk and how is it measured? How are expected returns and risk related? Why? How are bond maturity and bond returns related? Why? Answers to these and similar questions will be sought by means of modern portfolio and asset pricing theories. Efficient markets hypothesis and alternative behavioral finance models will be introduced and tested. The course has a quantitative emphasis and requires a sound knowledge of linear algebra, optimization methods and statistics from students.

Class Format

The above questions will be addressed both theoretically in class and by hands-on experimentation with data in the lab. Data from financial markets as well as artificially generated data will be used in empirical lab-work and the homeworks. In addition to the material covered in class, each student is required to prepare the lab assignments every week from each topic. One randomly selected student among volunteers will share his/her findings with the class in the following week. The mere act of volunteering will count towards your total lab score, which has a weight of 15% in your overall grade. In addition, there will be two midterms and one final examination. The first midterm will be on November 1, 2002, Friday and the second one on December 13, 2002, Friday.

Grading

The student presentations in the lab constitute 15% of the grade. The midterm 1, midterm 2 and the final carry weights of 25%, 25% and 35% respectively.

Textbooks

Main:

Kettell, B., *Financial Economics: Making Sense of Market Information*, Prentice Hall, 2001.

Reference:

Blinder, A., *Central Banking in Theory and Practice*, MIT Press, 1999.

Course Outline and Readings

1. Introduction and Overview

- Stock, bond, option, repo, reverse repo definitions.
- Research questions and modelling approaches (Chapter 1).
- Statistics and testing procedures.

2. Asset Pricing Theories

- Random walk model: Mandelbrot (Chapter 2).
- Portfolio risk and return: Markowitz (Chapters 2, 4, 8).
- CAPM: Lintner, Sharpe, Mossin (Chapters 2, 9).
- Common stock valuation principles (Chapter 7).
- Consumption CAPM: Lucas (1978).
- Efficient markets hypothesis: Fama (Chapter 10).
- Bubbles (Chapter 12).
- Option pricing: Black and Scholes (Chapters 2, 15).

3. Anomalies and Puzzles

- Anomalies and behavioral finance (Chapter 13).
- Equity premium puzzle: Mehra and Prescott (Chapter 14).

4. Term Structure and the Central Bank

- Bond valuation and duration (Chapter 6).
- Term structure of interest rates (Chapter 5).
- Repo, reverse repo and Central Bank intervention.
- Understanding the Central Bank balance sheet.