FE513 (Spring 2019)
KAIST College of Business

Portfolio Optimization and Management

Class hours: Tuesday, Thursday 10:30 – 12:00 (2nd half)

Instructor: Hyun-Soo Choi

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Course Description

The purpose of this course is to introduce the modern theory and application of portfolio management techniques. We start by discussing the mean variance portfolio theory, including determination of opportunity set and calculation of the efficient frontier. Then we move on to modeling the correlation structure of security returns and selecting the optimum portfolio. Management of bond portfolios will also be discussed in the class, if time permits.

Textbook

- Edwin J. Elton, Martin J. Gruber, Stephen J. Brown, and William N. Goetzmann, **Modern Portfolio Theory and Investment Analysis** (MPT), Wiley (required)
- Zvi Bodie, Alex Kane, and Alan J. Marcus, **Investments**, McGraw-Hill

Grading Policy

Homework Project	30%
Final Exam	70%

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Tentative Schedule

Date	Topics	Reading
1st – 3rd week	Mean variance portfolio theory: Opportunity set and efficient frontier	MPT Ch. 4-6
4th – 5th week	Correlation structure of security returns: Models and techniques for determining the efficient frontier	MPT Ch. 7-9
6th – 7th week	Selecting optimum portfolio: Estimating expected returns and portfolio selection	MPT Ch. 11-12
8th week	Management of bond portfolios / Final exam	MPT Ch. 22