FINANCIAL MARKETS (FM255)

Course duration: 54 hours lecture and class time (Over three weeks)

Summer School Programme Area: Finance

LSE Teaching Department: Department of Finance

Lead Faculty: Dr Thummim Cho and TBC (Dept. of Finance)

Pre-requisites: Introductory Finance and elementary quantitative methods.

Course Outline:

This course is about characteristics of financial markets and optimal investment strategies with a strong focus on asset pricing, active portfolio management and risk immunization, portfolio performance evaluation, predictability of returns, dynamic trading strategies, and behavioural finance. We will also consider the recent developments in both theory and practice of cross-sectional asset pricing and evaluation of risky securities. The aim of the course is to provide a thorough understanding of both mechanics and operations of modern financial markets, focusing on the trading and evaluation of securities in equity and bond markets.

The topics covered in this course include:

- Optimal portfolio selection (asset allocation and security selection);
- Risk and return in Equilibrium: The CAPM;
- Empirical evidence on the capital asset pricing model;
- Performance of the C-CAPM, the equity premium and risk-free rate puzzles;
- Anomalies and trading strategies (size effect, value premium, momentum);
- Multi-factor models: APT and I-CAPM;
- Intermediary-based asset pricing model;
- Time-Varying Expected Returns and Market Efficiency;
- Optimal investment strategy when privately informed;
- Active portfolio management, insurance, and immunisation;
- Organisation of financial markets and exchanges;
- Determinants of bid-ask spreads;
- Behavioural finance;
- Bond portfolio management and immunisation.
Text:


These textbooks are supplemented by selected chapters from finance and investments textbooks, and relevant articles published in the finance literature.

**Lectures:** 36 hours  **Classes:** 18 hours

**Formative Assessment:** Homework to be submitted to the class teacher on Friday of week one, this will be marked over the weekend and then feedback given out on Monday of week two to aid with mid-session exam preparation.

**Summative Assessment:** You will be examined on the basis of two closed book exams, each worth 50% of the final overall grade. The mid-session exam (2hr), will take place on Tuesday of week two and the final exam (2hr) will take place on Friday of week three. Precise time and locations of the exams will be circulated during the programme.

**Detailed Schedule of Lectures:**

**Week 1**

**Lecture 1: Modern Portfolio Theory**

- Introduction to the course
- Risk aversion
- Basic return statistics
- Diversification and portfolio construction
- Security selection decision
- Capital allocation decision
- Empirical evidence from Sweden

**Core Readings:**

- Chapter 6 – Risk Aversion and Capital Allocation to Risky Assets [*Investments and Portfolio Management* (Bodie, Kane, and Marcus)].
Supplementary Readings:


Lecture 2: CAPM

- Volatility vs. covariance
- CAPM derivations
- CAPM implications
- Understanding and estimating CAPM betas
- Empirical tests of CAPM and asset pricing anomalies

Core Readings:

- Chapter 9 – The Capital Asset Pricing Model [Investments and Portfolio Management (Bodie, Kane, and Marcus)].

Lecture 3: Consumption CAPM

- Consumption CAPM derivations in log
- Equity risk premium and risk-free rate puzzles
- Consumption CAPM implications in the cross-section
- Empirical tests using different measures of consumption

Core Readings:

- Chapter 13 – Empirical Evidence on Security Returns [Investments and Portfolio Management (Bodie, Kane, and Marcus)].

Supplementary Readings:


Lecture 4: Multifactor Models

- Arbitrage pricing theory
- Applying APT to security analysis
- Fama-French 3-factor model
- Empirical evidence: Characteristics vs. Covariance
Core Readings:
- Chapter 10 – Arbitrage Pricing Theory and Multifactor Models of Risk and Returns [Investments and Portfolio Management (Bodie, Kane, and Marcus)].

Supplementary Readings:

Lecture 5: Intermediary-based asset pricing
- Intermediary asset pricing
- Anomaly discovery and arbitrage
- Putting the evidence together: A theory of intermediary asset pricing betas

Core Readings:

Supplementary Readings:

Week 2

Lecture 6: Review of lectures 1-5

Core Readings:
- Summary of what you need to know in FM255 (To be handed out)

Lecture 7: Efficient Markets and History Dependent Trading Strategies
- Weak-form efficiency
- The random walk model
- Tests of return autocorrelation
- Returns to momentum strategies
- Returns to contrarian strategies
Core Readings:
- Chapter 11 The Efficient Market Hypothesis [*Investments* (Bodie, Kane, and Marcus)].

Supplementary Readings:

Lecture 8: Return autocorrelation and behavioural finance
- Psychological biases in behavioral finance
- Underreaction and overreaction
- Long-horizon return autocorrelations
- Explaining evidence of return autocorrelation
- Rational arbitrageurs and mispricing

Core Readings:
- Chapter 12, Behavioural Finance and Technical Analysis [*Investments* (Bodie, Kane, and Marcus)].

Supplementary Readings:

Week 3

Lecture 9: Market microstructure - Institutions and Theory
- Bid-ask spreads
- Liquidity
- Orders
- Exchanges and market structures
- Why do people trade?
- Exchanges and market structures
- Models of market microstructure with asymmetric information:
  - Sequential trading and bid-ask spread
  - Strategic use of private information

Core Readings:
- Chapter 3, How Securities are Traded [Investments (Bodie, Kane, and Marcus)].

Supplementary Readings:
- Chapter 1 [Market Microstructure Theory (O’Hara)]

Lecture 10: Market microstructure - Empirical Evidence
- Estimating the bid-ask spread
- The bid-ask bounce
- Block trades
- Empirical evidence on institutional trading
- Microstructure effects on asset pricing

Supplementary Readings:
Lecture 11: Bond markets and the term structure of interest rates

- Zeros and coupon bonds
- Types of bonds
- Default risk
- Bond pricing
- Bond yields
- The term structure of interest rates
- Forward rates

Core Readings:
- Chapter 2 (sections 1 and 2), Chapter 14 Bond Prices and Yields [Investments (Bodie, Kane and Marcus)]

Lecture 12: The term structure of interest rates and Bond portfolio management

- Theories of the term structure:
- The expectations hypothesis
- The liquidity preference hypothesis
- The market segmentation hypothesis
- Drawing inference from the term structure
- Principles of bond portfolio immunization
- Duration
- Convexity

Core Readings:
- Chapter 15, The Term Structure of Interest Rates, Chapter 16, Managing Bond Portfolios [Investments (Bodie, Kane and Marcus)]
Credit Transfer: If you are hoping to earn credit by taking this course, please ensure that you confirm it is eligible for credit transfer well in advance of the start date. Please discuss this directly with your home institution or Study Abroad Advisor.

As a guide, our LSE Summer School courses are typically eligible for three or four credits within the US system and 7.5 ECTS in Europe. Different institutions and countries can, and will, vary. You will receive a digital transcript and a printed certificate following your successful completion of the course in order to make arrangements for transfer of credit.

If you have any queries, please direct them to summer.school@lse.ac.uk