Shanghai Advanced Institute of Finance
Shanghai Jiao Tong University

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Empirical Asset Pricing, Fall 2020

Course Overview

This course focuses on the estimation and evaluation of asset pricing models. The ultimate goal of the course is to help students develop a love and appreciation for Finance. We will cover equity, fixed-income, currency and derivatives. Our approach is to integrate economic insights and empirical data with the help of econometric tools. In addition to theory, data, and tools, we will also pay attention to how financial markets and financial institutions function in the real world. Special attention will also be given to the Chinese markets.

Course Materials

There is no required textbooks. You might find these textbooks useful: **Singleton**, *Empirical Dynamic Asset Pricing*; **Campbell, Lo, and MacKinlay**, *The Econometrics of Financial Markets*; **Cochrane**, *Asset Pricing*; and **Hamilton**, *Time Series Analysis*. Homework assignments, datasets, and pdf copies of the articles that are part of the assigned readings will be posted online.

Lectures and Office Hours

- **Lectures:** Tuesdays and Thursdays 1:30-4:30pm.
- **Office Hours:** Thursdays 10:00-11:30am.
- **Teaching Assistant:** Chengyu Bai (cybai.18@saif.sjtu.edu.cn).

Course Requirements and Grading:

- **Classroom 30%:** Participations (10%) and presentations (20%).
- **Reports and Assignments 50%:** Six discussion reports (30%) and five individual assignments.
- **Project 20%:** One individual project.

Course Schedule *(tentative and subject to change)*

Week 1: Structural Estimations, November 24, 2020

- **Tuesday Lecture:**
  1. Hansen and Singleton (1982).
  2. Campbell (2003).
  3. Campbell and Cochrane (1999).
- **Thursday Discussions:**
  1. 2020 SAIF PhD qualifying exam, question 1.
  2. Structural estimation using stock and options: Pan (2002).
  3. **Due:** Pick one discussion paper and submit your report.

Week 2: Cross-Sectional Estimations, December 1, 2020

- **Tuesday Lecture:**
  1. Sorting stocks into portfolios: Fama and French (1992).
  2. Forming factors: Fama and French (1993).
  3. Other cross-sectional patterns:
     - Medium-term momentum: Jegadeesh and Titman (1993).
     - Post earnings announcement drift: Bernard and Thomas (1989).
     - Information in option trading volume: Pan and Poteshman (2006).
     - The economic link between customers and suppliers: Cohen and Frazzini (2008).
  4. **Due:** Assignment 1 on *Standard Errors*.
- **Thursday Discussions:** Cross-sectional estimations of factor risk premiums
  1. Stock-market liquidity: Pastor and Stambaugh (2003).
  2. VIX: Ang, Hodrick, Xing, and Zhang (2006).
  3. Funding liquidity: Pan, Hu, and Wang (2013).
  4. **Due:** Pick one discussion paper and submit your report.

Week 3: Global Financial Markets, December 8, 2020

- **Tuesday Lecture:**
  1. Markets: equity and index options; fixed-income markets including Treasury and corporate bonds and derivatives; currency and commodity.
  2. Tools: time-Series analysis, option pricing models, principal component analysis, term-structure models, and default models.

3. **Due:** Assignment 2 on *Empirical Analysis of Returns: Alpha, Beta, and R2*

- **Thursday Discussions:**
  1. Determinants of credit spreads: Collin-Dufresne, Goldstein, and Martin (2001).
  2. Credit spreads in China: Geng and Pan (2020).
  3. Constructing the yield curve noise: Hu, Pan, and Wang (2013).
  4. **Due:** Pick one discussion paper and submit your report.

Week 4: Macro and Asset Pricing, December 15, 2020

- **Tuesday Lecture:**
  1. **Due:** Assignment 3 on *Options.*
- **Thursday Discussions:**
  1. **Due:** Pick one discussion paper and submit your report.

Week 5: Microstructure and Asset Pricing, December 22, 2020

- **Tuesday Lecture:**
  1. **Due:** Assignment 4 on *Fixed-Income.*
- **Thursday Discussions:**
  1. **Due:** Pick one discussion paper and submit your report.

Week 6: FinTech, December 29, 2020

- **Tuesday Lecture:**
  1. **Due:** Assignment 5 on *Replicating the Fama and French Portfolios.*
- **Thursday Discussions:**
  1. **Due:** Pick one discussion paper and submit your report.