

## Financial Markets 金融市场, Spring 2021

### 1 Course Overview

This course provides an in-depth exploration of key financial markets through an empirically driven approach:

- **Goal:** The ultimate goal of the course is to help students develop a love and appreciation for the financial industry in general and the financial markets in particular. In which ways are financial markets important? How do financial practitioners help contribute to the broader society?
- **Coverage:** We will cover equity, fixed-income, currency, commodities and derivatives, focusing on the key risk factors of the respective markets and their relation to the broader macro-economic environment. Institutional knowledge as well as regulatory environment will also be covered in relation to the financial markets, as clear awareness of such issues helps students break the boundary of textbooks, and connect with the real world.
- **Approach:** Our approach is empirical in nature. We integrate finance models with financial data, with the help of statistical and econometric tools. Through this learning process, students are expected to gain strength not only in quantitative and analytical capabilities but also in economic insights and intuitions.

### 2 Course Materials

- **Required:** Slides and lecture notes in pdf format will be posted online.
- **Optional:** Bodie, Kane and Marcus, Investments, 11th edition or older, McGraw Hill.

### 3 Course Schedule

#### Day 1: Markets, Models, and Data

1. [Financial Markets Amidst Covid-19.](#)
2. [Financial Data and Empirical Estimations.](#)
3. [Optimal Risk-Taking in Theory.](#)
4. Modern Finance and its Impact to the Real World.
5. China in the World.

#### Day 2: Cross-Sectional Equity

1. [Alpha, Beta, and the CAPM.](#)
2. [Equity Quant Investing: Approach and Insight.](#)
3. [Financial Models in Quant Investing: CAPM and Beyond.](#)
4. Equity Quant Investing in Practice.
5. China's FinTech and Asset Management.
6. Student Presentations: *China's Capital Markets for Global Investors.*

#### Day 3: Time-Series Equity, Option Pricing, and Credit Pricing

1. [Predicting Stock Market Returns and Market Efficiency.](#)
2. [Estimating Market Volatility.](#)
3. [Option Pricing and Stock Market Crashes.](#)
4. [Corporate Bonds and Credit Pricing.](#)
5. China's Credit Market.
6. Student Presentations: *Performance Evaluation of China's Mutual Funds.*

#### Day 4: Fixed Income

1. [The Bond Math: Yield and Duration.](#)
2. [The US Treasury Market and Its Monetary Policy.](#)
3. [Factors Influencing the Yield Curve.](#)
4. Interest Rate Swaps and OTC Derivatives.
5. China's Financial System and Institutions.
6. Student Presentations: *Option Pricing in China.*

## 4 Course Grading:

- **In Class:** 15% in-class participation and 15% in-class presentation.
- **Group Assignments:** 40%.
  1. China's Capital Markets for Global Investors. **Due:** Day 2.
  2. Performance Evaluation of China's Mutual Funds. **Due:** Day 3.
  3. Option Pricing in China. **Due:** Day 4.
  4. Fixed Income. **Due:** One Month from Day 4.
- **Final Exam:** 30%. Scheduled on June 19.