

课程名称:	资产定价
课程代码:	ECON130219.01
任课教师:	郭雳
开课院系:	经济学院国际金融系

中文课程简介：（150-300 字以内）

课程主要介绍三种核心资产定价方法，包括均衡定价、无套利定价、以及金融摩擦三大块内容。均衡资产定价部分将介绍理性人在不确定环境下的决策理论、资产组合理论、以及均衡资产定价的 CAPM、C-CAPM 等理论，以形成对金融运行的整体性理解。在无套利资产定价部分，将介绍资产定价基本定理、风险中性定价、多因子模型, 市场异常现象，动态对冲等理论。在金融摩擦部分，主要介绍行为金融相关概念对资产定价的影响，包括投资者情绪，有限注意力机制，过度自信以及前景理论等偏好理论。课程下半学期主要以专题形式补充介绍相关实证研究方法和特定市场下的资产定价问题，包括衍生品专题，机器学习专题，文本分析和加密货币市场专题。

1. 课程概要			
课程名称（中文）	资产定价		
课程名称（英文）	Asset Pricing		
授课语言	中文	适用学科专业	数理金融
学分数	3	教学周数	共 16 周
总学时	共 54 学时		实验/实践学时
预修课程要求	计量经济学，高等数学		
2. 教学目标 (150-300 字)			
<p>本课程的教学目标在于，首先，为本科生引入资产定价基本概念和原理。其次，培养学生学习和研究资产定价问题的技术知识和技巧。技术知识和技巧不仅包括理论分析框架，例如均衡定价，无套利定价，价格随机过程的计量经济学方法，也包括实证资产定价分析方法，例如时间序列预测方法及预测因子评估检验，横截面预测方法及投资组合构建，非结构化数据的处理方法和机器学习等。</p>			
3. 教学内容及进度安排			
课次	教学周	教学内容及预期效果	作业/实验
1	1	Introduction: Overview of the basic theory that we will expand on throughout the course.	

		<p>Required Reading</p> <ul style="list-style-type: none"> Fama, Eugene F. and Kenneth R. French, 1996, "Multifactor explanations of asset pricing anomalies," Journal of Finance 51, 55-84. Read p. 55-60. 	
2	2-3	<p>Basic Concepts of Asset Pricing & Stochastic Calculus Introduction and Review</p> <ul style="list-style-type: none"> Stochastic Calculus Introduction and Review (This module is a review covering some basic concepts in stochastic calculus and time-series processes) 	
1	4	<p>Modern Portfolio Theory (Mean-variance analysis)</p> <ul style="list-style-type: none"> Foundations of M-V analysis Mean-Variance efficient portfolios Properties of M-V efficient portfolio The case with risk-free asset <p>Reading List:</p> <ul style="list-style-type: none"> *Kan and Zhou (2007) Optimal Portfolio Choice with Parameter Uncertainty, JFQA. *Garlappi, Uppal and Wang (2006) Portfolio Selection with Parameter and Model Uncertainty: A Multi-Prior Approach, RFS. *Jagannathan and Ma (2003) Risk Reduction in Large Portfolios: Why Imposing the Wrong Constraints Helps, JF. *Basak and Chabakauri (2010) Dynamic Mean-Variance Asset Allocation, RFS. Tu and Zhou (2011). Markowitz meets Talmud: A combination of sophisticated and naive diversification strategies. JFE 	
1	5	<p>Partial Equilibrium: CAPM</p> <ul style="list-style-type: none"> CAPM as a G.E. result: CARA & normal payoff & risk-free asset CAPM as a G.E. result: normal return & risk-free asset CAPM as two-fund separation <p>Reading List:</p> <ul style="list-style-type: none"> *Frazzini and Pedersen (2014) Betting Against Beta, JFE. *Malamud and Vilkov (2015) Non-Myopic Betas, Working Paper. 	

		<ul style="list-style-type: none"> *Savor and Wilson (2014) Asset Pricing: A Tale of Two Days, JFE. 	
2	6-7	<p>General Equilibrium: C-CAPM</p> <p>Time Series Return Predictability:</p> <ul style="list-style-type: none"> *Goyal and Welch A Comprehensive Look at the Empirical Performance of Equity Premium Prediction *Neely, Rapach, Tu, Zhou (2011) Forecasting the Equity Risk Premium: The Role of Technical Indicators. * Rapach, Strauss, Zhou (2013) International Stock Return Predictability: What is the Role of the United States 	
2	7-8	<p>Non-arbitrage Pricing Theory, APT and Multi-Factor Model</p> <ul style="list-style-type: none"> Fama and French (2015) A Five-Factor Pricing Model, JFE. Hou, Xue, and Zhang (2016a) Digesting Anomalies: An Investment Approach, RFS. Harvey, Liu, and Zhu (2016) ... and the Cross-Section of Expected Returns, RFS. *Novy-Marx and Velikov (2016) A Taxonomy of Anomalies and Their Trading Costs, RFS. *Kozak, Nagel, and Santosh (2016) Interpreting Factor Models. Stambaugh and Yuan (2016) Mispricing Factors. <p>Cross-sectional Return Predictability (Market Anomalies)</p> <ul style="list-style-type: none"> *Jegadeesh, Narasimhan, and Sheridan Titman (1993) Returns to buying winners and selling losers: Implications for stock market efficiency. JF. Sloan (1996) Do stock prices fully reflect information in accruals and cash flows about future earnings? AR. Hou, Xue and Zhang (2017). Replicating anomalies. RFS 	
1	9	<p>Asset Pricing with Behavior Finance</p> <ul style="list-style-type: none"> DeLong JB, Shleifer A, Summers LH, Waldmann RJ (1990) Noise trader risk in financial markets. J Polit Econ 98:703–738 Kahneman, Daniel; Tversky, Amos (1979). "Prospect Theory: An Analysis of Decision under Risk". Econometrica. 47 (2): 263–291 	

		<ul style="list-style-type: none"> • *Baker and Wurgler (2006) Investor sentiment and the cross-section of stock returns. • *Stambaugh, Yu and Yuan (2012) The short of it: Investor Sentiment and anomalies • *Hou, Xiong and Peng (2009) A tail of two anomalies: The implications of investor attention for price and earnings momentum • *Da, Engelberg, and Gao (2011) In search of attention. • *Barber and Odean (2011) All that Glitters: The effect of attention and news on the buying behaviour of individual and institutional investors. 	
2	10-11	<p>Derivative Market: Futures and Option Pricing</p> <ul style="list-style-type: none"> • *Muravyev, Pearson, and Broussard (2013) Is There Price Discovery in Equity Options? JFE. • *Roll, Schwartz, and Subrahmanyam (2010) O/S: The Relative Trading Activity in Options and Stock, JFE. • *Hu (2014) Does Option Trading Convey Stock Price Information, JFE. • *Johnson and So (2012) The Option to Stock Volume Ratio and Future Returns, JFE. 	
1	12	<p>Asset Pricing with Big Data and Machine Learning</p> <ul style="list-style-type: none"> • *Green, Hand, and Zhang (2017) The Characteristics that Provide Independent Information about Average U.S. Monthly Stock Returns, RFS. • Han, He, Rapach, and Zhou (2018) How Many Firm Characteristics Drive US Stock Returns? • Gu, Kelly, and Xiu (2018) Empirical Asset Pricing via Machine Learning. 	
1	13	<p>Asset Pricing with Textual Data</p> <ul style="list-style-type: none"> • Tetlock (2007) Giving Content to Investor Sentiment: the Role of Media in the Stock Market, JF. • Tetlock, Saar and Macskassy (2008). More than words: Quantifying language to measure firms' fundamentals. JF • Loughran and McDonald (2011). When is a 	

		liability not a liability? Textual analysis, dictionaries, and 10 - Ks. JF	
		<ul style="list-style-type: none"> Garcia (2013) Sentiment during Recessions, JF. 	
1	14	<p>Asset Pricing with the Cryptocurrency Market</p> <ul style="list-style-type: none"> Härdle, Harvey and Reule (2019) Understanding Cryptocurrencies Liu, Tsyvlnskl and Wu (working paper) Common Risk Factors in Cryptocurrency Detzel, A., Liu, H., Strauss, J., Zhou, G., and Zhu, Y. (2018). Bitcoin: Predictability and profitability via technical analysis. Lee, Guo and Wang (2017). Cryptocurrency: A new investment opportunity? JAI Guo, Tao and Härdle. Latent Group Structure of Cryptocurrencies Market: A Dynamic Network Perspective. 	
1	15	Guidelines of Term Project	
1	16	Term Project Presentation	

4. 课程考核及成绩评定

考核指标*	权重	评定标准
出勤	10%	Attendance Record
课堂表现	30%	<p>A. Participation Performance, Q&A</p> <p>B. From week 4 onwards, students are required to discuss at least one market anomaly in class (based on class capacity).</p> <ol style="list-style-type: none"> The discussion should be prepared via PPT or Latex Beamer. Guidelines of discussion (please check if you make the following points clear): <ul style="list-style-type: none"> Highlight the main question (Why important) The intuition of the anomaly (Story) Describe the construction methodology Describe the empirical results Evaluation on the anomaly performance in Chinese market <ul style="list-style-type: none"> Is there any problem with the paper? How do you improve the methodology?
交易策略汇报 (PPT 答辩)	30%	<p><i>Construct a Trading Strategy:</i></p> <p><i>Replication of existing studies is perfectly fine and encouraged. Replication is actually a good way to start</i></p>

		<p>original research, and more and more replication data sets are available on the AER, JPE, and JFE websites.</p> <ol style="list-style-type: none"> 1. The topic must come from one topic of our class 2. Do a literature review with no less than five important papers on that topic 3. Replicate the main tables 4. Apply the strategy to the A-share market. <ul style="list-style-type: none"> • You can try portfolio or firm level data if the paper uses the aggregate market, and vice versa. • You can also try different asset classes. For example, if the paper uses stocks, you can try bonds, commodities, futures, FX, etc. 5. Consult me and get my approval on the topic before you do the project.
期末测验	30%	Open Book Exam

* 各项考核指标可自由设置，总权重为 100%。

5. 教材及阅读材料

序号	名称	作者	出版机构	出版日期	是否必读
1	Empirical Asset Pricing Models and Methods	Wayne Ferson	<i>The MIT Press</i>	2019.03	No
2					
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6. 任课教师简介 (教学科研经历简介, 300 字左右)

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办公地址	经济学院 309 办公室	办公时间	
联系方式	guo_li@fudan.edu.cn		
教师签名	郭雳	日期	2024-12-28