Discipline: Finance

1. Language

English

2. Title

Advanced Topics in Asset Pricing and Capital Market Research

3. Lecturer

Prof. Dr. Joachim Grammig (University of Tübingen)

Dr. Jantje Sönksen (University of Tübingen)

Prof. Dr. Erik Theissen (University of Mannheim)

4. Date and Location

July 3 – July 6, 2023

MLP Campus

Alte Heerstraße 40

69168 Wiesloch

5. Course Description

5.1 Abstract and Learning Objectives

Starting from a solid theoretical foundation, this course provides students with an understanding of important empirical methods and their application in asset pricing. It covers both the classical approaches based on Fama and MacBeth (1973) and Black, Jensen and Scholes (1972) - which are still widely used in current research - and GMM-based estimation methods. Furthermore, it shows how machine learning approaches can be meaningfully incorporated into modern asset pricing.

The course intends to enable students to plan and carry out empirical research in asset pricing on their own and prepares for an empirical PhD thesis in this area of finance.

5.2 Content

Part I

I.1 Theory Brush Up

I.2 Risk and Return

I.3 Efficient Markets

I.4 Empirical Tests of Portfolio Theory and Individual Investor Behavior

I.5 Tests of the CAPM

I.6 Testing the APT

I.7 Anomalies or Priced Risk Factors?

I.7 Further Topics (if time permits)

Part II

II.1 Generalized Method of Moments (GMM) and the Basic Asset Pricing Equation

II.2 The Canonical Consumption-CAPM (C-CAPM): Theory, Estimation, and Empirical Performance

II.3 Recent variations of the C-CAPM: Habit, Long-Run-Risk, Rare Disasters

II.4 Conditioning Information: Scaled Returns and Scaled Factors

II.5 Relationship Between Regression- and GMM-based Tests of Asset Pricing Models (Link to First Part)

II.6 Empirical Tools (the use of STATA/EVIEWS/MATLAB)

II.7 Econometric Theory (Extremum Estimators)

Part III

III.1 Popular machine learning methods in asset pricing

III.2 The role of machine learning in modern empirical asset pricing (e.g., moment selection for GMM-type settings, construction of test assets, etc)

5.3 Schedule

Part I: July 3 - 4, Erik Theissen

9:15-12:45 Break 14:00 -17:30

Part II: July 5, Joachim Grammig

9:15-12:45 Break 14:00 -17:30

Part III: July 6, Jantje Sönksen

9:15-12:45 Break 14:00 -17:30

6. Preparation and Literature

6.1 Prerequisites

Good knowledge of standard capital market theory (theory of portfolio selection, CAPM, APT) at the level of a standard Master course. Good knowledge of econometrics at the level of a Master course.

6.2 To prepare

A reading list, subdivided into essential readings and additional readings, will be provided with the lecture slides

7. Administration

7.1 Max. number of participants

20 participants

7.2 Exam

Take home exam

7.3 Credits

The course corresponds to a scope of 6 LP/ECTS

8. Work Time Expenditure

Distribution of Study Hours	**Hours**
Preparation	56
Lectures	28
Revision	56
Preparation Take-Home Assignment	35
Take-Home Assignment	5
SUM	**180 h**