

Course and Examination Fact Sheet: Autumn Semester 2023

10,270: Asset Pricing

ECTS credits: 4

Overview examination/s

(binding regulations see below) decentral - Written work, Digital, Individual work individual grade (70%) Examination time: Term time decentral - Written work, Digital, Group work group grade (30%) Examination time: Term time

Attached courses

Timetable -- Language -- Lecturer <u>10,270,1.00 Asset Pricing</u> -- English -- <u>Fengler Matthias Reginald</u>

Course information

Course prerequisites

PhD level knowledge in microeconomics and mathematics.

Learning objectives

The class provides a PhD level introduction to asset pricing. It involves understanding and modeling the factors that determine the prices of financial assets like stocks, bonds, derivatives, and other investment instruments. Main emphasis is on a thorough treatment of the stochastic discount factor, capturing the relationship between an asset's expected return and its risk characteristics, as the principal concept underlying modern asset pricing theory.

Course content

The class considers discrete-time asset valuation. Students learn how competing asset pricing theories can be phrased by using the notion of the stochastic discount factor.

- 1. Stylized facts of asset pricing & Introduction
- 2. Stochastic discount factor and aribtrage-free markets
- 3. Mean variance analysis
- 4. Discount factors, betas, and mean-variance efficient frontiers
- 5. Dynamic security markets
- 6. Risk-neutral pricing
- 7. Portfolio choice and equilibrium
- 8. Consumption-based AP

Course structure and indications of the learning and teaching design

The class will be run as a lecture with assignments which are to be solved in groups of two to three students.



Course literature

Main textbook:

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• Munk (2015) : Financial Asset Pricing Theory, Oxford University Press

Useful supplementary textbooks:

- Cochrane (2005): Asset Pricing, Revised Edition, Princeton University Press.
- Back (2012): Asset Pricing and Portfolio Choice Theory, Oxford University Press.

Additional course information

Examination information

Examination sub part/s

1. Examination sub part (1/2)

| Examination modalities | |
|------------------------------|----------------------------------|
| Examination type | Written work |
| Responsible for organisation | decentral |
| Examination form | Written work |
| Examination mode | Digital |
| Time of examination | Term time |
| Examination execution | Asynchronous |
| Examination location | Off Campus |
| Grading type | Individual work individual grade |
| Weighting | 70% |
| Duration | |

Examination languages

Question language: English Answer language: English

Remark Final problem set, has to be solved individually.

Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

- -

2. Examination sub part (2/2)

Examination modalities

| Examination type | Written work |
|------------------------------|--------------|
| Responsible for organisation | decentral |
| Examination form | Written work |
| Examination mode | Digital |

Fact sheet version: 1.0 as of 04/08/2023, valid for Autumn Semester 2023



Time of examinationTerm timeExamination executionAsynchronousExamination locationOff CampusGrading typeGroup work group gradeWeighting30%Duration--

Examination languages Question language: English Answer language: English

Remark

Assignments to be solved in groups of 2-3 students

Examination-aid rule Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

Examination content

Assignments to be solved in groups of 2-3 students. The final problem set is solved individually within four hours.

Distribution of assignments via Canvas and upload of solutions via Canvas.

Contents:

- 1. Stylized facts of asset pricing & Introduction
- 2. Stochastic discount factor and aribtrage-free markets
- 3. Mean variance analysis
- 4. Discount factors, betas, and mean-variance efficient frontiers
- 5. Dynamic security markets
- 6. Risk-neutral pricing
- 7. Portfolio choice and equilibrium
- 8. Consumption-based AP

Examination relevant literature

Lecture notes, readings, and text books as published on canvas by the end of the term.



Please note

Please note that only this fact sheet and the examination schedule published at the time of bidding are binding and takes precedence over other information, such as information on StudyNet (Canvas), on lecturers' websites and information in lectures etc.

Any references and links to third-party content within the fact sheet are only of a supplementary, informative nature and lie outside the area of responsibility of the University of St.Gallen.

Documents and materials are only relevant for central examinations if they are available by the end of the lecture period (CW51) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 42 are relevant for testing.

Binding nature of the fact sheets:

- Course information as well as examination date (organised centrally/decentrally) and form of examination: from bidding start in CW 34 (Thursday, 24 August 2023);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 16 October 2023);
- Examination information (supplementary aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 45 (Monday, 06 November 2023);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the de-registration period in CW 45 (Monday, 06 November 2023).