University of St.Gallen

Course and Examination Fact Sheet: Autumn Semester 2020

9,168: Theory of Risk and Insurance

ECTS credits: 4

Overview examination/s

(binding regulations see below)
Decentral - Written examination (100%, 90 mins.)
Examination time: term time

Attached courses

Timetable -- Language -- Lecturer
9,168,1.00 Theory of Risk and Insurance -- Englisch -- Schmeiser Hato

Course information

Course prerequisites

Bachelor degree or equivalent.

This course is recommended for MBF-students in their first or third semester of the program.

Learning objectives

Understand the theory of demand and supply in the insurance sector

Be able to use the technical instruments provided in the lecture

Course content

The lecture "Theory of Risk and Insurance" focuses on the economic theory of decision making by primary insurers and reinsurers. In this context we will particularly discuss well-known contributions to the literature (see, amongst others, Ehrlich/Becker (1972), Turner (1987) and Shavell (1979)). The discussion will be centered around issues such as the optimal demand for insurance or the optimal supply of insurance. Further topics in focus are problems that arise due to information asymmetries (adverse selection and moral hazard) as well as aspects of insurance mathematics.

More details cf. scriptum on canvas

Course structure

1. Insurance demand (decision theoretic foundations; the basic model of insurance demand; insurance demand and the price of insurance; safety measures and insurance)

2. Insurance supply (CAPM and insurance CAPM; contingent claims approach - OPT model)

3. The problems of information asymmetry (moral hazard agency theory; moral hazard in the context of insurance; adverse selection - market failure)

4. Aspects of insurance mathematics (individual and collective model of risk theory; premium calculation; loss reserving; ruin theory)

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Course literature

More details cf. scriptum on canvas

Eisenführ, F./Weber, M./Langer, T. (2010): Rational Decision Making, Berlin, Springer.

Zweifel, P./Eisen, R. (2012): Insurance Economics, Berlin, Springer.

Ehrlich, J./Becker, G. (1972): Market Insurance, Self-Insurance and Self-Protection, in: Journal of Political Economy (80), pp. 623-648.

Turner, A. (1987): Insurance in an Equilibrium Asset-Pricing Model, in: Cummins, J. D./Harrington, S. (eds.): Fair Rate of Return in Property-Liability Insurance, Boston, Springer, pp. 79-99.

Shavell, S. (1979): On Moral Hazard and Insurance, in: Quartely Journal of Economics (93), pp. 541-562.

Additional course information

In the case of the President's Board having to implement new directives due to the SARS-Cov-2 pandemic in AS2020, the course information listed above will be changed as follows:

The course is conducted online.

The recordings of the course are permanently available.

The lecturer informs via e-mail on the changed implementation modalities of the course.

The exam is cancelled and is replaced by a written paper totalling 25 pages.

Examination information

Examination sub part/s

1. Examination sub part (1/1)

Examination time and form

Decentral - Written examination (100%, 90 mins.)
Examination time: term time

Remark

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Examination-aid rule

Extended Closed Book
The use of aids is limited; any additional aids permitted are exhaustively listed under "Supplementary aids". Basically, the following is applicable:

- At such examinations, all the pocket calculators of the Texas Instruments TI-30 series and mono- or bilingual dictionaries (no subject-specific dictionaries) without hand-written notes are admissible. Any other pocket calculator models and any electronic dictionaries are inadmissible.
- In addition, any type of communication, as well as any electronic devices that can be programmed and are capable of

communication such as notebooks, tablets, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

Supplementary aids

Pocket calculator of the Texas Instruments TI-30 series

Note: Changes may be necessary depending on the developments regarding Covid-19 - a home assignment can be an alternative (like it took place in the FS 2020)

Examination languages

Question language: English
Answer language: English

Examination content

Detailed informations are given in the slides of the lecture (cf. canvas)

Examination relevant literature

Detailed informations are given in the slides of the lecture (cf. canvas)

Please note

Please note that only this fact sheet and the examination schedule published at the time of bidding are is 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, 20 August 2020);
- Examination information (regulations on aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 12 October 2020);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 42 (Monday, 12 October 2020);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the registration period in CW 44 (Thursday, 29 October 2020).