Course and Examination Fact Sheet: Autumn Semester 2019

10,383: Topics in Economics

ECTS credits: 4

Overview examination/s
(binding regulations see below)
Decentral - Oral examination (individual) (50%)
Decentral - Oral examination (individual) (50%)

Attached courses
Timetable -- Language -- Lecturer
10,383,1.00 Topics in Economics -- English -- Föllmi Reto, Koeniger Winfried

Course information

Course prerequisites
Solid courses in macroeconomics at the Master level, such as Advanced Macroeconomics 1 and 2.

Students who plan to take this course as an optional course and without an examination should not register via the bidding system. They should register directly with the lecturer.
Students who plan to take this course as a regular course or as an optional course with an examination should register via the bidding system. Enrolment in a course is binding: students have to attend the course and take the exam.

Course content

The course covers two important topics in macroeconomics. The first topic is inequality and growth. The second topic is the analysis of dynamic stochastic equilibrium models with incomplete markets.

The first part of the lecture focuses on two main questions. First, how does the distribution of income and wealth evolve in a market economy? Under which conditions does the gap between rich and poor people tend to increase or decrease over time? In that context, we review central propositions of Piketty’s influential book, “Capital in the 21st century”. Second, we study the impact of heterogeneity (through income inequality or different types of firms) on central economic phenomena: International Trade, economic growth, and structural change. These strands of literature have gained in importance as firm-level datasets have become available. Their results shed new light how much countries gain quantitatively from opening up to trade.

The second part of the lecture introduces students to dynamic stochastic equilibrium models with incomplete markets which have become workhorse models for the analysis of monetary and fiscal policy. Unless one is willing to make very restrictive assumptions about the underlying environment, equilibria in these models need to be approximated numerically by dynamic programming. Students will thus learn some numerical methods required for dynamic programming. We then apply these methods within the macroeconomic workhorse model with incomplete markets.

Qualification: Students will be guided to the frontier of macroeconomic research to perceive why heterogeneity matters for macroeconomic outcomes. They will identify sources of inequality and understand the heterogeneous effects of fiscal or monetary policy. Students will learn the methods to perform policy analysis within this research field in their own research projects.

Course objectives: The goals of the course are to provide an introduction to the macroeconomic literature on heterogeneity across consumers and firms and incomplete markets. Further, students (i) should understand the methods to build models with heterogeneity and (ii) know empirical procedures to test them. Finally, they will be able to solve a dynamic program and (iii) apply these methods to a problem of their interest.

The main learning outcomes are that students understand the macroeconomic workhorse models with heterogeneity and incomplete markets, that students can start to write code to solve that model, that students are able to interpret the numerical output and that students are able to evaluate economic policies within that model.
Course structure

The first part of the course on inequality and growth is structured in the following way:

1. Introduction; empirical motivation: inequality-growth, Kuznets-curve, evolution of top incomes
2. Savings, growth and Piketty’s law of capitalism: Neoclassical theory of distribution, dynamics of distribution with perfect markets
3. Product market imperfections and firm heterogeneity: Innovations and growth, heterogeneous firms and international trade

The second part of the course on dynamic models with incomplete markets is structured as follows:

1. Dynamic programming: introduction and some solution methods
2. Application to models with exogenously incomplete market: stylized facts and puzzles, the life-cycle model with exogenous market incompleteness, liquidity constraints, precautionary savings, computation of equilibrium, joint analysis of durable and non-durable consumption, household debt and bankruptcy
3. Models with endogenous market incompleteness: limited commitment and asymmetric information

Course literature

Part 1:
Bertola, Foellmi, Zweimüller, Income Distribution in Macroeconomic Models,
Further papers see detailed syllabus in Fall.

Part 2:
The following books give an accessible introduction and background to some of the covered topics.

Below are further readings for each topic of the lecture:

1. Dynamic programming
2. Application to models with exogenously incomplete markets


2.1 Household debt and bankruptcy


3. Endogenous incomplete markets


### Additional course information

The course is offered in the second half of the semester in six 4-hour lectures.

### Examination information

#### Examination sub part/s

1. **Examination sub part (1/2)**

   **Examination time and form**
   Decentral - Oral examination (individual) (50%)

   **Remark**
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   **Examination-aid rule**
   Open Book

   Students are free to choose aids but will have to comply with the following restrictions:

   - At such examinations, all the pocket calculators of the Texas Instruments **TI-30 series** are admissible. Any other pocket calculator models 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 electronic dictionaries, notebooks, tablets, PDAs, mobile telephones and others, are inadmissible.
   - Students are themselves responsible for the procurement of examination aids.

   **Supplementary aids**
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   **Examination languages**
   Question language: English
   Answer language: English

2. **Examination sub part (2/2)**

   **Examination time and form**
   Decentral - Oral examination (individual) (50%)

   **Remark**
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   **Examination-aid rule**
   Open Book

   Students are free to choose aids but will have to comply with the following restrictions:

   - At such examinations, all the pocket calculators of the Texas Instruments **TI-30 series** are admissible. Any other pocket
calculator models 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 electronic dictionaries, notebooks, tablets, PDAs, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

**Supplementary aids**

**Examination languages**

Question language: English

Answer language: English

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**Examination content**

content covered in class and in the lecture notes

**Examination relevant literature**

First part of the lecture: lecture notes, book by Bertola et al. See course literature

Second part of the lecture: W. Koeniger, lecture notes; see also the corresponding parts of the course literature.

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**Please note**

Please note that this fact sheet alone is binding and has priority over any other information such as StudyNet (Canvas), personal databases or faculty members’ websites and information provided in their lectures, etc.

Any possible references and links within the fact sheet to information provided by third parties are merely supplementary and informative in nature and are outside the University of St.Gallen’s scope of responsibility and guarantee.

Documents and materials that have been submitted no later than the end of term time (CW51) are relevant to central examinations.

**Binding nature of the fact sheet:**

- Information about courses and examination time (central/decentral) and examination type starting from the beginning of the bidding on 22 August 2019
- Information about examinations (examination aid regulations, examination content, examination-relevant literature) for decentral examinations after the 4th semester week on 14 October 2019
- Information about examinations (examination aid regulations, examination content, examination-relevant literature) for central examinations as from the starting date for examination registration on 4 November 2019

Please consult the fact sheet again after these deadlines have expired.