University of St.Gallen

Course and Examination Fact Sheet: Autumn Semester 2022

10,383: Macroeconomics and Inequality

ECTS credits: 4

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

Attached courses
Timetable -- Language -- Lecturer
10,383,1.00 Macroeconomics and Inequality -- Englisch -- Föllmi Reto , Koeniger Winfried

Course information

Course prerequisites

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

Learning objectives

The objective of this course is to guide students to the frontier of research in macroeconomics that is concerned with inequality and growth, distributions and heterogeneous effects of economic policy.

For the first part, you should get a deep understanding of the empirical facts and the model frameworks underlying the current discussions concerning firm heterogeneity and distribution and growth.

In the second part of the course students will study macroeconomic research that analyzes how heterogeneity matters for macroeconomic outcomes. They will understand 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.

The goal in this part of the course is to provide an introduction to the macroeconomic literature on heterogeneity across consumers and firms and incomplete markets. At the end of this course, students will understand (i) the methods to build models with heterogeneity and (ii) the methods to test them. Finally, they will be able to solve a dynamic program and to apply the 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 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.

Course structure and indications of the learning and teaching design

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 markets: 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*,

Princeton University Press, Paperback 2014.

For research papers see the detailed syllabus in fall.

Part 2:

The following book and handbook chapters give an accessible introduction and background to some of the covered topics.

Ljungqvist, Lars and Thomas J. Sargent, *Recursive Macroeconomic Theory*, MIT Press, Cambridge, Massachusetts, 2018.

Krueger, Dirk, Kurt Mitman and Fabrizio Perri, *Macroeconomics and Household Heterogeneity*, Handbook of Macroeconomics, vol. 2A, chapter 11, Elsevier, 2016.

Piazzesi, Monika and Martin Schneider, *Housing and Macroeconomics*, Handbook of Macroeconomics, vol. 2B, chapter 19, Elsevier, 2016.

For further readings see the detailed syllabus in fall.

Additional course information

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

The examination date for each part of the course (towards the end of the lecture period or in January) will be scheduled together with the students at the beginning of the course.

Examination information

University of St.Gallen

Examination sub part/s

1. Examination sub part (1/2)

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

Remark
--

Examination-aid rule
Open Book
Students are free to choose aids but will have to comply with the following restrictions:

- All the pocket calculators that are not of the Texas Instruments TI-30 series are explicitly 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, 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

2. Examination sub part (2/2)

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

Remark
--

Examination-aid rule
Open Book
Students are free to choose aids but will have to comply with the following restrictions:

- All the pocket calculators that are not of the Texas Instruments TI-30 series are explicitly 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, 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

Examination content

Content covered in class and in the lecture notes.

University of St.Gallen

Examination relevant literature

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

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

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, 25 August 2022);
- Examination information (regulations on aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 17 October 2022);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 42 (Monday, 17 October 2022);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the registration period in CW 45 (Monday, 7 November 2022).