



Course and Examination Fact Sheet: Spring Semester 2022

8,270 | 9,270: International Macroeconomics (MEcon)

ECTS credits: 4

Overview examination/s

(binding regulations see below)

Decentral - examination paper written at home (individual) (50%)

Examination time: term time

Decentral - examination paper written at home (individual) (50%)

Examination time: term time

Attached courses

Timetable -- Language -- Lecturer

[8,270,1.00 International Macroeconomics \(MEcon\)](#) -- Englisch -- [Torun David](#) , [Mündler Marc-Andreas](#)

Course information

Course prerequisites

Macroeconomics II is a prerequisite for this course, including basic knowledge of dynamic optimization techniques. Familiarity with the software package Matlab can help, but is not necessary. The relevant aspects of dynamic optimization and Matlab coding will be covered in the course.

Learning objectives

After completion of this course, you will be able to:

- Simulate yourself open economies and their responses to local or global macroeconomic influences, using state-of-the-art software programs.
- Base predictions of the trade balance and the current account balance on optimal consumer and firm behavior as well as government interventions, both in simplified two-period models and more advanced infinite-horizon models using dynamic optimization.
- Use a fundamental current account equation to state predictions and relate the equation to empirical evidence on open-economy macroeconomics.
- Model open economies with multiple sectors, using optimality conditions from a social planner's problem and decentralized optimality conditions.
- Learn about the concept of calibration (the empirical quantification of the parameters of a model), and calibrate an open-economy real-business-cycle model yourself using data and Matlab.
- Assess how fluctuations in domestic productivity and international relative prices - the terms of trade and the real exchange rate - move the real business cycle and domestic macroeconomic variables - such as consumption, investment, national income, employment, and wages - in the presence of traded and non-traded goods.

Course content

This course presents the conceptual tools to understand open economies and their macroeconomic interaction with global markets. In addition, the course equips you with the hands-on computing tools to simulate the open economy and its adjustment to local and global shocks yourself. For this dual purpose, the course presents open-economy macroeconomics from a theoretical and quantitative perspective. Topics include theories of the trade balance and the current account and their relationship to domestic macroeconomic variables, domestic productivity change, the terms of trade and the real exchange rate, as well as determinants of international capital flows. The course emphasizes real-side explanations. You will put the models to work in



quantitative exercises using current country data and state-of-the-art software programs, written in Matlab.

Course structure and indications of the learning and teaching design

The course content is grouped into two main blocks of instruction. The first five lectures in block I gradually lay the foundations of open-economy macroeconomics, progressing from households in an endowment economy to households and firms in a production economy, and moving from two-period to infinite-horizon models. The first block starts out with a Tutorial on using Matlab for macroeconomic simulations in the open economy. At the end of block I stands an open-economy real-business-cycle model that unifies the insights for rigorous quantification. A first software-based exercise in the form of a problem set concludes this first block.

Block II begins with a review of the first software-based exercise, so as to prepare you for the second software-based exercise. The four lectures in block II then consider the terms of trade and the real exchange rate, as well as shocks that move them, so as to assess how these relative prices affect the real business cycle in the open economy. The lectures present empirical evidence from structural vector auto-regression models and contrast them with predictions from versions of the calibrated theory model. A full understanding of the terms of trade and the real exchange rate requires an export-producing, an import-competing, and a non-traded goods sector. The second software-based exercise asks you to apply the insights and assess the plausibility and practical relevance of the extended model.

To sum up the teaching design, we will offer interactive lectures and (Matlab) tutorials, along with an extensive set of Matlab codes that will be adjusted and extended by the students.

Course literature

Lecture notes become available online at *StudyNet (Canvas)* before each lecture.

Textbooks (required): Obstfeld and Rogoff (1996)/Chapters 1, 2 and 4; Uribe and Schmitt-Grohé (2017)/Chapters 1, 2, 3, 4, 7 and 8.

Background Readings (recommended): Lucas (1982); Nason and Rogers (2006); Mendoza (1991).

The two textbooks complement each other. The recommended background readings help you review the lecture material beyond the textbooks. Background readings are available through the course web page. Web links to copyrighted readings may only work from on-campus domains.

References:

LUCAS, R. E. J. (1982): "Interest Rates and Currency Prices in a Two-Country World," *Journal of Monetary Economics*, 10(3), 335-59.

MENDOZA, E. G. (1991): "Real Business Cycles in a Small Open Economy," *American Economic Review*, 81(4), 797-818.

NASON, J. M., AND J. H. ROGERS (2006): "The Present-Value Model of the Current Account Has Been Rejected: Round Up the Usual Suspects," *Journal of International Economics*, 68(1), 159-87.

OBSTFELD, M., AND K. ROGOFF (1996): *Foundations of international macroeconomics*. MIT Press, Cambridge, Mass. and London.

URIBE, M., AND S. SCHMITT-GROHÉ (2017): *Open economy macroeconomics*. Princeton University Press, Princeton and Oxford.

Additional course information

We are planning to hold three lectures as well as both tutorials in-person. The remaining lectures will be held online using Zoom. Lectures will be recorded in the cloud and available to all course participants for the semester.

In the case of the President's Board having to implement new directives due to the SARS-CoV-2 pandemic in SpS2022, the course information listed above will be changed as follows:

- The planned in-person lectures and tutorials will be held online.

The examination information listed below would be changed as follows:

- There are no changes necessary to the examination information.



Examination information

Examination sub part/s

1. Examination sub part (1/2)

Examination time and form

Decentral - examination paper written at home (individual) (50%)

Examination time: term time

Remark

One of Two Individual Problem Sets

Examination-aid rule

Term papers

Written work must be written without outside help according to the known citation standards, and a declaration of authorship must be attached, which is available as a template on the StudentWeb.

Documentation (quotations, bibliography, etc.) must be carried out universally and consistently according to the requirements of the chosen/specified citation standard such as e.g. APA or MLA.

The legal standard is recommended for legal work (cf. by way of example: FORSTMOSER, P., OGOREK R., SCHINDLER B., Juristisches Arbeiten: Eine Anleitung für Studierende (the latest edition in each case), or according to the recommendations of the Law School).

The reference sources of information (paraphrases, quotations, etc.) that has been taken over literally or in the sense of the original text must be integrated into the text in accordance with the requirements of the citation standard used. Informative and bibliographical notes must be included as footnotes (recommendations and standards e.g. in METZGER, C., Lern- und Arbeitsstrategien (latest edition)).

For all written work at the University of St.Gallen, the indication of page numbers is mandatory, regardless of the standard chosen. Where page numbers are missing in sources, the precise designation must be made differently: chapter or section title, section number, article, etc.

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 - examination paper written at home (individual) (50%)

Examination time: term time

Remark

One of Two Individual Problem Sets

Examination-aid rule

Term papers

Written work must be written without outside help according to the known citation standards, and a declaration of authorship must be attached, which is available as a template on the StudentWeb.

Documentation (quotations, bibliography, etc.) must be carried out universally and consistently according to the requirements of the chosen/specified citation standard such as e.g. APA or MLA.



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Supplementary aids

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Examination languages

Question language: English

Answer language: English

Examination content

Examination Papers/Problem Sets: There will be two take-home problem sets (also referred to as examination papers or term papers in the default terminology of fact sheets). Each problem set counts 50 points, so the total score for the course is 100 points.

The problem sets ask you to obtain country-level data, prepare and detrend them; to mathematically derive variations of the material in class; and to then implement variations of existing MATLAB code to simulate the according variants of the model. Baseline data and code in MATLAB (and optionally for parts of problem set 1 in STATA) will be available on StudyNet (Canvas).

You will have about one month time to complete each problem set.

Examination relevant literature

Lecture notes become available online at StudyNet (Canvas) before each lecture.

Textbooks (required):

- Obstfeld and Rogoff (1996)/Chapters 1, 2 and 4;
- Uribe and Schmitt-Grohé (2017)/Chapters 1, 2, 3, 4, 7 and 8.

Background Readings (recommended):

- Lucas (1982);
- Nason and Rogers (2006);
- Mendoza (1991).

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- NASON, J. M., AND J. H. ROGERS (2006): "The Present-Value Model of the Current Account Has Been Rejected: Round Up the Usual Suspects," *Journal of International Economics*, 68(1), 159-87.
- OBSTFELD, M., AND K. ROGOFF (1996): *Foundations of international macroeconomics*. MIT Press, Cambridge, Mass. and London.



- URIBE, M., AND S. SCHMITT-GROHÉ (2017): Open economy macroeconomics. Princeton University Press, Princeton and Oxford.

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 (CW21) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 12 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 04 (Thursday, 27 January 2022);
- Examination information (regulations on aids, examination contents, examination literature) for decentralised examinations: in CW 12 (Monday, 21 March 2022);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 12 (Monday, 21 March 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 15 (Monday, 11 April 2022).