

STRUCTURAL ESTIMATION IN INTERNATIONAL ECONOMICS

JOSCHKA WANNER

JUNIOR PROFESSORSHIP OF QUANTITATIVE ECONOMICS

FACULTY OF ECONOMICS AND SOCIAL SCIENCES

UNIVERSITY OF POTSDAM

WINTER TERM 2021/2022

Outline

Empirical research in international economics is characterized by a tight link between economic theory and econometric specifications. The course will introduce the structural approach to empirical research using the gravity model of international trade, which is *the* workhorse model in empirical trade research. Based on a theoretical derivation of the model, students will learn both how to estimate the corresponding structural econometric model and how to use the model to perform counterfactual policy analyses. Using the trade gravity expression as a starting point, closely related models for example for international migration, FDI flows, or carbon emissions embodied in international trade will also be considered. The course will furthermore introduce a dynamic multicountry model of international trade, production, and investment, discuss its calibration, and show how it can be used to assess a range of questions in international macroeconomics. Besides the lectures, the course will also contain computer sessions in which the students will implement the different estimations and simulations themselves.

Literature

Compulsory reading:

- Yotov, Y. V., R. Piermartini, J.-A. Monteiro, and M. Larch (2016): “An Advanced Guide to Trade Policy Analysis: The Structural Gravity Model,” *World Trade Organization, Geneva*.
- Obstfeld, M. and K. Rogoff (2001): “The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?”, In: *NBER Macroeconomics Annual 2000*, vol. 15. MIT Press, pp. 339–390.
- Eaton, J., S. Kortum, and B. Neiman (2016): “Obstfeld and Rogoff’s International Macro Puzzles: A Quantitative Assessment”, *Journal of Economic Dynamics and Control*, 72, pp. 5-23.

Further reading will be provided in the lectures and the moodle course.

Coursework

Participants are expected to read the *Advanced Guide* in preparation for the course. Specifically, all participants should have read part I of the *Advanced Guide* by the second week of term. They are further required to read the remaining items of the compulsory reading list (the timing for these will be discussed in class). Active participation in the lectures is also expected. All students will give a presentation on one research paper as part of the lectures. The list of potential topics will be made available in the first weeks of the course once the total number of participants is known. At the end of the semester, all students have to write a term paper in which they will evaluate an international economic policy measure of their choice. Details concerning the term papers will be discussed in the lecture in due time. PhD students additionally have to write a referee report on a recent working paper on a topic closely related to the course content.

Organizational Issues

The course takes place in seminar room S12 at the University of Potsdam's Campus Griebnitzsee on Thursdays from 10 to 12. The first meeting will be on October 28th, 2021, and the last one on February 17th, 2022. A prior registration is not required. The course is offered as part of the University of Potsdam's master's programs "Economic Policy and Quantitative Methods" (as module MA-M-210, MA-E-210, or MA-E-230) and "Economics" (as module MA-W-120 or MA-W-110), as well as an elective course for PhD students at the Berlin School of Economics. If you have questions about the course, please send an email to joschka.wanner@uni-potsdam.de.