

Macroeconomic Methods: Applications to Monetary Policy

Syllabus (summer 2019)

Macroeconomics aims at understanding how and why aggregate economic variables such as GDP, inflation, and employment move together. This course gives an overview of the different methods that are used in modern macroeconomic analysis to analyze these questions. Students learn to understand and evaluate different methods in the context of monetary policy evaluation based on the New Keynesian model. We discuss model properties, solution methods, calibration and time series evidence (structural vectorautoregressions).

Important: The course will be offered in block structure in the summer term 2019.

Block 1: Structural vectorautoregressions for monetary policy analysis (B. Gehrke)

- April 23th: 1.15 – 2.45 pm (LG 5.155) & 3 – 4.30 pm (LG 5.152)
- April 24th: 9.45 – 11.15 am (LG 3.155) & 11.30 am – 1 pm (computer lab 0.420)
- April 29th: 3 – 4.30 pm (LG 5.152) & 4.45 – 6.15 pm (computer lab 0.420)

Block 2: Solving a New Keynesian DSGE model (B. Kohlbrecher)

- June 6th : 9.45 am – 1 pm (LG 3.154)
- June 28th: 9.45 am – 11.15 am (LG 3.154) & 11.30 am – 1 pm (computer lab 0.421)
- July 5th: 9.45 am – 11.15 am (LG 3.154) & 11.30 am – 1 pm (computer lab 0.421)
- July 12th: 9.45 am – 11.15 am (LG 3.154) & 11.30 am – 1 pm (computer lab 0.421) (*optional session*)

Each block ends with the students applying modern macroeconomic analysis by preparing their own final research project.

Prerequisites: Macroeconomics (Business cycles & economic growth) and a sound knowledge of econometric methods (e.g., Applied Econometrics). Multivariate Time Series Analysis is helpful, but not compulsory.

Language: English.

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Contents

1. Introduction and background
 - (a) Overview
 - (b) The Lucas and Sims critique
2. Deriving stylized facts from time series data: SVARs
 - (a) Introduction
 - (b) General remarks on VAR processes
 - (c) Some issues in VAR implementation
 - (d) Structural identification of monetary policy VARs
3. A basic New Keynesian model
 - (a) Structure and idea
 - (b) Solving DSGE models: Overview of different methods
 - (c) Solving a DSGE model with Dynare
 - (d) Model evaluation: Conditional vs. unconditional moments

Literature (non-exhaustive)

Textbooks

Canova, Fabio (2007), “Methods for Applied Macroeconomic Research”, Princeton University Pres.

DeJong, David N., and Chetan Dave (2011). “Structural Macroeconometrics”, Princeton University Press.

Research papers

Lawrence J. Christiano & Martin Eichenbaum & Charles L. Evans, 2005. “Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy,” *Journal of Political Economy*, University of Chicago Press, vol. 113(1), pages 1-45, February.

Lucas, Robert E. (1976). “Econometric Policy Evaluation: A Critique.” *Carnegie-Rochester Conference Series on Public Policy*. vol. 1. North-Holland: pages 19-46.

Sims, Christopher A. (1980). “Macroeconomics and Reality.” *Econometrica: Journal of the Econometric Society*: pages 1-48.