

Macroeconometrics

The objective of the course is twofold. First, to present some of the most popular time series models designed to analyze the propagation mechanisms and measure the effects of macroeconomic shocks. In particular we will cover Structural Vector Autoregressive models as well as several extensions like the Factor Augmented VAR, Smooth transition VAR, Threshold VAR and Time-Varying Coefficients VAR. The second objective is to discuss some recent applications of these models in macroeconomics. The focus will be on monetary and fiscal policy shocks, news shocks and technology shocks among others. Matlab programs to implement the theoretical methods and replicate the applications studied in class will be made available to students.

Requirement: Econometrics I.

Contents

- I. Preliminaries: ARMA models.
- II. VAR models
- III. Structural VARs (SVAR)
- IV. Non-fundamentalness and non-invertibility in SVAR models
- V. Factor Augmented VAR (FAVAR)
- VI. Factor models
- VII. Nonlinear VARs.
- VIII. Time-Varying Coefficients VARs
- IX. Structural empirical models under imperfect information.

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