

# Seminar Time Series Econometrics

## Vector Autoregressions (VAR)

Prof. Dr. Matei Demetrescu

Prof. Dr. Carsten Jentsch

Dr. Paul Navas

# Aims and scope

The aim of the seminar is to get acquainted with vector autoregressions, the workhorse of the applied Macroeconomist or any practitioner working in with a dynamic system of interdependent variables whose (dynamic) reaction to shocks one wishes to analyze.

## You will

- acquire an in-depth perspective of the VAR method and its main variants (i.e. structural VAR),
- understand the identification assumptions,
- and their consequences for the inference,
- specially on impulse-response functions (IRFs),
- use econometric software to apply/replicate/practice on examples,
- review some state-of-the-art issues (local projections), other variants of the model,
- present some of these issues to an audience of teachers and peers,
- critically discuss/analyze the presented issues with teachers and peers.

# Aims and scope cont'd

## Intended audience

- Master Econometrics, Master Data Science, Master Statistics, Macroeconomists in the making?

## Prerequisites

- Time Series Analysis

# Structure

- In a first meeting, each participant is allocated a working topic, ranging from general review/handbook articles to research papers on extensions/variants of VAR to applied papers.
- During the winter term, each participant works on the assigned topic, gaining an in depth-understanding of issue at hand while writing a report on the topic, sending updates and keeping contact with the teacher(s) throughout the process.
- In a block seminar, there will be a short presentation of each topic (20 min).

# Milestones

- October 2023, exact date TBA: In-person meeting, QnA and allocation of topics.
- January 15th 2024: Deadline for electronic submission of the report (pdf format). An identical hard copy version must be supplied. in the subsequent meeting.
- Presentation of the final results: TBA (End of January 2024)

# Further details

## Contact

- `mdeme@statistik.tu-dortmund.de`
- `jentsch@statistik.tu-dortmund.de`
- `navas@statistik.tu-dortmund.de`

## Office hours

- by appointment; but before resorting to such desperate measures do not hesitate to ask simpler questions per email.

# Q & A

Any specific questions?