

STOCKHOLMS UNIVERSITET,  
MATEMATISKA INSTITUTIONEN,  
Avd. Matematisk statistik

## Case study 2 of 2 (Panel data) – Econometric methods MT5014

- This case study consists of two parts: a report and a presentation.
- The case study should be solved individually.
- See the course web-page for information about grading. The deadline is available on the course web-page.

### Instructions for the report

- The report should be written in R Markdown with pdf as output option. Any tables, figures or results should be dynamically computed when compiling/”knitting” the document. Chunks of code should only be visible (echo = TRUE) in the pdf report when explicitly asked for. Both the compiled pdf and the source Rmd-file should be uploaded on the course home page.

*The rest of the instructions of are purposefully not very specific and you are welcome to ask questions.*

**Data:** You are to download **panel data** of own your choosing from Statistics Sweden (SCB), <https://www.scb.se>. See for example:

- <https://www.statistikdatabasen.scb.se>
- <https://www.scb.se/hitta-statistik/aldre-statistik/innehall/serien-historisk-statistik-for-sverige>
- <https://www.scb.se/hitta-statistik/temaomraden/sveriges-ekonomi/langa-tidsserier-for-ekonomiska-indikatorer/>
- <https://www.scb.se/hitta-statistik/sverige-i-siffror/djupdykning-i-statistik-om-sveriges-kommuner/>

**Analysis of the data:** You are to write a report in which you:

- i) Analyze your data using panel data methods.
- ii) Analyze your data in a manner which ignores the time-dependence.
- iii) Reflect over differences in the analyses above.

**The format of the report:** The report should be well-written and self-contained, which means that one should be able to follow your report without having access to e.g. this document or the lecture notes. The reasoning should be well motivated and the structure clear and easy to follow. The report should include:

- Abstract.
- Introduction.
- A section describing the data.
- A section (or sections) describing your analyses and the methods that are used.
- Conclusion/Discussion.

The above are sections that are usually contained in for example a Bachelor's thesis. For inspiration see therefore, for example:

- <https://www.math.su.se/publikationer/uppsatsarkiv/tidigare-examensarbeten-i-matematisk-statistik>
- <https://kurser.math.su.se/course/view.php?id=900>

**The report is expected to be around 2-3 pages plus figures/tables.**

### **Instructions for the presentation**

- The presentation should be at most 10 minutes and you should be prepared to answer questions regarding your work.
- The date for the presentation is available on the schedule.

*Note: nothing prohibits you from developing your findings in this case study into a future Bachelor's thesis.*