Econometrics 3b: Time series data

Detailed requirements for the assessment

1. Requirements for the term paper

1. The term paper should examine an empirical question of economics with the use of the time series techniques discussed during the course. The question can be either your own or taken from a published article (replication). If your question is motivated by replication it should (if necessary) be modified so that the course methods from the course can be used. The use of methods other than those examined in this course is NOT recommended.
2. The term paper should be written and submitted individually.
3. Submission of the term paper should consist of a complete documentation of the project in the form of (i) the term paper itself in the form of a PDF file, (ii) a script file that contains the econometric code and (iii) the necessary data files.
4. PDF file must meet the following requirements: (i) It should be a summary of the study and its results, and consists of a maximum of three pages of text (including references) and in addition no more than 2 pages of charts and tables. The summary must have the following characteristics:
    a. The summary shall be independent in the sense that it should be possible to read it and understand what you have done without having to go to the script. The summary should not refer to the script.
    b. The question should be clearly stated. A brief reference to any previous empirical results should be made.
    c. Data should be presented but the presentation should be brief. Focus on a description of the characteristics of the variables that are most important to your purpose.
    d. Describe the estimation strategy and its limitations, given the data set you use.
    e. Interpret your results statistically. Use appropriate methods to make the correct inference.
    f. Interpret your results economically. This can include a sensitivity analysis with alternative specifications, a discussion of the limitations of your results and a brief mention what your results mean and do not mean.
5. If the word processor is used (e.g. Word, LibreOffice, OpenOffice, Pages etc.) use a font such as Times, Georgia etc. with font size 10 points and line spacing exactly 12 points, and all margins 4 cm.

6. If LaTeX is used to produce the PDF file, use the standard document class article with the option a4paper and otherwise default font size, margins, line spacing, etc. (i.e., 10 point text and no change in margins).
7. You may use the econometric software of your choice as long as the software can take instructions from a script file.
8. Your script file (an unformatted text file, ASCII file, preferably written in a text editor; file encoding UTF-8 is recommended) must meet the following requirements:
   a. Be well structured.
   b. Being fully commented, whether it is an R script file or a script file Sweave.
   c. The script the file must contain all codes that produce the test statistics, graphs and tables that are presented in the term paper PDF file. This means that the script file should contain references to the documentation in the PDF file.
   d. The script file must be fully reproduce the econometric results presented in the PDF from the reading of data and definitions of variables and the production of all charts, tables, and results in running text.
   e. All the pre-processing of the data shall be documented in the script file. It means that no data management or other calculations than those documented in the script should be needed to reproduce your inquiry. It also means that the project data files must be unedited raw data files from the source.
   f. The script file should be able to be executed without error messages in the so-called batch mode with the software used no matter which it is.
   g. Template for how the script files can be found in the files sample-r.r If you use another econometric software than R, your script file must follow the same template regarding structure, documentation, comments, etc.

2. Requirements for presentation at pre-seminar

1. At the pre-seminar you shall present your own term paper project.
2. Each presentation including discussion and comments are allocated 5 minutes.
3. The presentation should focus on the research question, presentation of data and methods. It is not necessary to prepare a PowerPoint presentation, but if you do bring it on a USB-stick.
4. The pre-seminars will be implemented on Zoom.