MACROECONOMETRICS, Spring 2024

Homework 2. Due Wednesday February 6.

1. Download (or re-use) 3 series from the BEA and test if your variables are co-integrated (best to choice something like income, consumption, exports, that should have cointegrating vectors). (If you prefer, you can use simulated series, this allows you to play with sample size more easily.) The best solution uses the Johansen estimator, but a less ambitious uses the Engle-Granger test (see, e.g., Hamilton for critical values) and the least ambitious impose a coefficient of say unity (depends on your data whether that makes sense) and check if the residual has a unit root. (NOTE: I have posted my Johansen code written in Gauss and I downloaded and also posted Matlab code that I have not tested. If you use it, I recommend that you check it [it seems to have the same structure, so I don't mean running both, but just comparing the lines] against my Gauss code which is thoroughly tested as I used it for paper published in Review of Economics & Statistics).