Homework #12. Time Series Regression. AMS 586

Name:_____SBU ID:_____

Dear all, this homework is on time series regression using R.
Please study the websites provided below to compile RMD program to answer the questions asked.
We welcome you to submit your solutions to the Brightspace before class on Tuesday, November 28.
Please include: (1) Rmd code, and (2) Output from Rmd.

Time series regression

1. Example:
"In this example, we use the Danish data on money income prices and interest rates, from Johansen & Juselius (1990). Here we model the logarithm of real money, M2 (LRM) using the independent variables LRY, IBO and IDE (see introduction to the Denmark data below), and we estimate the ARDL(3,1,3,2) model, and related ECMs."

Johansen, S. and Juselius, K. (1990), Maximum Likelihood Estimation and Inference on Cointegration – with Applications to the Demand for Money, Oxford Bulletin of Economics and Statistics, 52, 2, 169–210.
https://onlinelibrary.wiley.com/doi/10.1111/j.1468-0084.1990.mp52002003.x

2. ARDL:
https://www.theoj.org/joss-papers/joss.03496/10.21105.joss.03496.pdf
https://rdrr.io/github/Natsiopoulos/ARDL/f/README.Rmd

https://davegiles.blogspot.com/2013/03/ardl-models-part-i.html
https://davegiles.blogspot.com/2013/06/ardl-models-part-ii-bounds-tests.html

3. Denmark dataset:
https://search.r-project.org/CRAN/refmans/ARDL/html/denmark.html

1. **Please build the ARDL(3,1,3,2) model using the Denmark data as introduced above.**
2. **Please convert this ARDL(3,1,3,2) model above into an unrestricted and a restricted ECM.**