

Econometrics II: Time Series Data

Homework and Reading Assignment #2

September 22, 2021

1 Reading Assignment

- Sections 2.8 - 2.12 in Enders.

2 Homework Assignment

- Mathematically derive the equation for Dicky-Fuller test.
- Take one of the time series from homework assignment #1 and run:
 - 1. A sequential ADF test on it. Please follow the sequential process (as shown in Pfaff's figure 3.3) carefully.
 - 2. Cross-check your results with Philip-Perron test for unit root
 - 3. Do you suspect your time series to be affected by a structural break? If yes, then perform a structural break unit root test using Zivot and Andrews test in R. Does your result regarding the unit root change or hold?
 - Note: Make sure you describe the equation along with the null hypotheses of these tests.

You can also perform the above tasks on any time series data of your choice!