

## **Econ 313, Fall 2021**

### **HW #4**

due October 28

For this assignment, you will fit a variable to an autoregressive process and construct a simple forecast

1. Pick a variable to forecast. Ideally, it will be one with fairly little dependence on other variables to minimize omitted variable bias. Describe your variable and explain why you chose it.
2. Explain why you chose to use the level, difference, or de-trended version of your variable. Report simple descriptive statistics.
3. Choose the optimal lag length for your AR process and provide your reasoning. Make sure to include at least one lag even if tests suggest no lags.
4. Fit your model to the optimal AR process and report the results.
5. Construct a forecast for your variable and report the results.

Bonus. Attend the candidate's talk on Friday at 11:30. Send me a couple paragraphs telling me what you learned from the talk and whether you think he might be a good addition to the Economics faculty.