Assignment 3

October 13, 2022

1. Use the same data as in the last two homework.

"The dataset `data1945_2015.xlsx` gives the *real* price and dividend series of US stock market index over years 1945-2015. Using this dataset, compute two variables: continuously compounded returns (including dividends) r_t, and log dividend-price ratios dp_t."

Run the horizon-7 predictive regression of r_t on dp_{t-1}. Report the direct estimator of the horizon-7 regression slope and R-square. Also report the implied estimator for the horizon-7 regression slope using AR(1) model for dividend-price-ratios.

2. Derive the autocorrelation structure for the AR(2) model.