Assignment 1

Econ M524 (Fall, 2022)

August 31, 2022

1. 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.

(a). Compute the AR(1) slopes for two variables.

(b). Drop the autocorrelation plots for two variables.

(c). Using the dividend-price ratio as the predictor (for the return), run a predictive regression. Report the R-square, the slope estimator, t-statistic for the two-sided test of predictability and its p-value.