Empirical Asset Pricing A

Homework II

Data

Go to the website of Kenneth French (`http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/index.html`) and download from his "Data Library" the following items:

- Fama-French 3-factors ($Mkt\text{-}Rf$, SMB, HML)

(A) 25 portfolios formed on size and book-to-market (5 x 5)

(B) 10 portfolios formed on momentum

For the following exercises, focus on monthly return data from March 1997 to February 2017.

Exercise 1: Time-Series Regressions

For each set of test assets (A) & (B), run time-series regressions for all portfolios' returns on the three factors. Report the intercept (with t-stat) as well as the R^2 for each portfolio individually. Compute also the GRS test statistic $\mathcal{J}_1$, and its p-value, to test whether the intercepts are jointly equal to zero for each set of the test assets.

Describe your findings and give some interpretation.

Exercise 2: Cross-Sectional Regressions

For each set of test assets (A) & (B) run Fama/MacBeth regressions to get the cross-sectional intercept and the risk premia associated with the factors. Test whether the intercept is zero and whether the estimated risk premia coincide with the average factor return.

Describe your findings and give some interpretation.