

## EX 4: Hypothesis Testing and Interpreting regression results

Using the database FF\_Data\_.xls with all transformation implemented

1. Recalibrate the simulation discussed in the section "the R2 as a measure of the relevance of regression" to have R-squares respectively of .99 and .05. Replicate Figure 5 with new calibration and the simulation of two shocks occurring respectively in 1956:1 and 1966:1
2. Over the sample 1962:1 2014:6 estimate CAPM equation for pr11, pr12, pr13, pr14,pr15. Provide two tests, an F-test and a t-test, of the null hypothesis that the constant is zero in all regressions
3. Augment all regressions with the Factors SMB, HML and MOM. Perform a test of the null following null hypothesis
  - (a) all coefficients on SMB, HML and MOM are zero
  - (b) the coefficients on SMB and HML are 1, the coefficient on MOM is -1
  - (c) HML, SMB, MOM are orthogonal to the excess returns on the market portfolios