

Chen, ross and roll assignment



**ASSIGN
BUSTER**

The purpose of this QCS is to help you review the material on tests of the CAPM and other multifactor models and to illustrate the frequently used two-pass regression approach to testing asset pricing models such as the CAPM and other multi-factor models. As you have seen in the lectures the procedure involves running two regressions. In the first step a time-series regression to calculate factor loadings or betas and in the second step a cross-sectional regression of returns on loadings.

This QCS will not be graded but you are asked to prepare it before the tutorial and be able to answer questions about it during the tutorial and in the lecture the week after. Assignment: The file data.xls provides excess returns on three factors (mkt, smb, hml - columns B-D) which are in excess return form as well as the risk-less rate (column E), from 1990-2002.

Columns F-O provide returns on 10 portfolios (which are not in excess return). The file mpr.xls provides excess return information for the 10 portfolios for 2003. 1.

Run first pass (time-series) regressions of the returns of the 10 portfolios on the 3 factors for 1990-2002 and store the regression coefficients. Comment on the regression results. Are the beta coefficients statistically significant? 2. Run second pass regressions of the cross-sectional average 2003 returns on the beta coefficients to calculate the different risk premia. Which risks earn a positive risk premium? 3. Interpret your results in the light of CAPM and multi-factor model tests. Are your results consistent with the CAPM? Explain why. 4. What are the limitations