

# Optional Exercise

Econ 7631

November 30, 2002

In the previous homework you identified the equations of Klein's model of the U.S. Macroeconomy. The data are found in Appendix table A16.2 of Greene's book and will be posted on my website.

1. Estimate the consumption equation by OLS, 2SLS, and LIML using SAS. Compare estimates, standard errors, and t-values. Which of these estimates would you use and why?
2. Estimate the 3 behavioural equations by 3SLS using Proc Model. Are there any advantages in using these estimates rather than those of the limited information estimator above? Any disadvantages?
3. (testing overidentifying restrictions) Try to replicate the results in the first row of Greene's table 16.6. (Ignore the degrees of freedom column since this may not be correct.) Note: You may have to use IML or GAUSS to replicate the results from all tests.
4. (Exogeneity testing) Test the hypothesis that  $X_{t-1}$  is exogenous in equation 3 using the Spencer Berk test.