

**Homework 4. October 1—due October 12.**

1. Modify the program `hansin.pgm` to replicate the study by Hansen and Singleton. Try and estimate the model using 3–5 different sets of instruments. Try a set of instruments which you may think is “best” (argue why) and one which you may think is not so good. Try some instruments that you think are bad and some you think are good. Try using a lot of instrument and try to use just a few. Are the results stable to the choice of instruments? (You will likely find that they are not, so “weird” results are OK and doesn’t necessarily indicate that you have messed up.)

Try different lag-lengths, and (best after I have covered it in class next week) weighting matrices, pre-whitening etc. Also try some crazy starting values and see if you get a solution. (You can also download data or do whatever, the more you try, the more you learn, you can do things jointly. You can also try GMM in Stata or, fairly easily, translate the code to Matlab (leaving out the obscure error checking parts)) Comment on your results.