

Exercise 6 - IV
QuantII
Due: March 12, 2008

1. Use `mss.dta`, which is described in Miguel, et al., JPE to compare the results of running a model with simple OLS (that is, assuming that growth is exogenous to civil war) with the instrumented IV regression. For the purposes of this question assume that civil war is continuous.

a. Using OLS and Stata's regression command estimate the effect of growth on civil war. Include additional explanatory variables but assume that they are exogenous.

b. Now estimate a two-stage least squares regression 'by hand'. That is, first generate an instrument from a regression of growth on rainfall and all exogenous variables, and then re-estimate the OLS model in a. but with the instrument for growth instead of the endogenous variable. How do the results differ from a.?

c. Now estimate the 2SLS model from b. with Stata's `ivregress` command. How do the results differ from b.?

d. Now estimate the model in c. with Mata. Make sure that you estimate the correct standard errors.

e. Use various methods to assess whether the instrument is "weak." (Use `estat firststage`, and, as typical for stata work, only discuss the output you understand.)