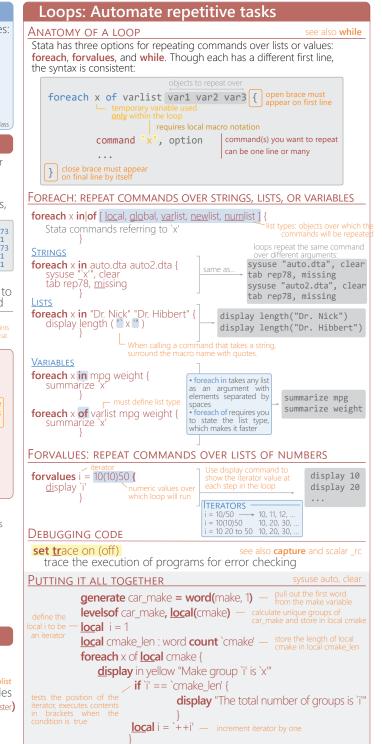
Programming with Stata (heat Sheet For more info, see Stata's reference manual (stata.com) Scalars both r- and e-class results contain scalars scalar x1 = 3create a scalar x1 storing the number 3 scalar a1 = "I am a string scalar" create a scalar a1 storing a string 2 **Matrices** e-class results are stored as matrices <u>mat</u>rix a =  $(4 \setminus 5 \setminus 6)$ <u>matrix b = (7, 8, 9)</u> create a 3 x 1 matrix create a 1 x 3 matrix matrix d = b' transpose matrix b; store in d matrix ad1 = a \ d + matrix ad2 = a, d row bind matrices column bind matrices matselrc b x, c(13) search matselrc select columns 1 & 3 of matrix b & store in new matrix x mat2txt, matrix(ad1) saving(textfile.txt) replace export a matrix to a text file DISPLAYING & DELETING BUILDING BLOCKS [<u>sca</u>lar | <u>mat</u>rix | <u>mac</u>ro | <u>est</u>imates] [<u>l</u>ist | drop] b list contents of object b or drop (delete) object b [<u>sca</u>lar | <u>mat</u>rix | <u>mac</u>ro | <u>est</u>imates] dir list all defined objects for that class matrix list b matrix dir scalar drop x1 list contents of matrix b list all matrices delete scalar x1 3 **Macros** public or private variables storing text ● GLOBALS available through Stata sessions PUBLIC global pathdata "C:/Users/SantasLittleHelper/Stata" define a global variable called pathdata cd Spathdata — add a \$ before calling a global macro change working directory by calling global macro **global** myGlobal price mpg length summarize \$myĠlobal summarize price mpg length using global **OLOCALS** available only in programs, loops, or do-files **Private local** myLocal price mpg length create local variable called myLocal with the strings price, mpg, and length summarize my ocal add a before and a after local macro name to call summarize contents of local myLocal levelsof rep78, local(levels) create a sorted list of distinct values of rep78, store results in a local macro called levels local varLab: variable label foreign can also do with value labels store the variable label for foreign in the local varLab **O TEMPVARS & TEMPFILES** special locals for loops/programs tempvar temp1 — initialize a new temporary variable called temp1 **generate** 'temp1' =  $mpq^2$  - save squared mpg values in temp1 summarize `temp1' — summarize the temporary variable temp1 tempfile myAuto create a temporary file to see also

**save** 'myAuto' be used within a program

Building blocks basic components of programming R- AND E-CLASS: Stata stores calculation results in two<sup>\*</sup> main classes: return results from general commands commands return results from estimation such as **summarize** or **tabulate** commands such as regress or mean To assign values to individual variables use: SCALARS I individual numbers or strings 2 MATRICES I rectangular array of quantities or expressions 3 MACROS 
pointers that store text (global or local) there's also s- and n-class Access & save stored r- and e-class objects Many Stata commands store results in types of lists. To access these, use return or ereturn commands. Stored results can be scalars, macros, matrices, or functions. summarize price, detail mean price ereturn list returns list of scalars, macros, return list returns a list of scalars matrices, and functions scalars: r(N) scalars: = 74 e(df r) = 73 $e(N_{over}) = 1$ r(mean) = 6165.25...each time an r-class = 73 e(N)= 86995225.97... r(Var) e(k\_eq) = 1 r(sd) = 2949.49... = 1 e(rank) **generate** p mean = r(mean) **generate** meanN = e(N)create a new variable equal to create a new variable equal to average of price obs. in estimation command **preserve** create a temporary copy of active dataframe restore restore temporary copy to point last preserved to test code that Accessing estimation results After you run any estimation command, the results of the estimates are stored in a structure that you can save, view, compare, and export. regress price weight Use estimates store estimates store est1 store previous estimation results est1 in memory eststo est2: regress price weight mpg eststo est3: regress price weight mpg foreign fit two regression models and store estimation results estimates table est1 est2 est3 print a table of the two estimation results est1 and est2 Exporting results The estout and outreg2 packages provide numerous flexible options for making tables after estimation commands. See also putexcel and putdocx commands. esttab est1 est2, se star(\* 0.10 \*\* 0.05 \*\*\* 0.01) label create summary table with standard errors and labels esttab using "auto\_reg.txt", replace plain se export summary table to a text file, include standard errors outreg2 [est1 est2] using "auto\_reg2.txt", see replace export summary table to a text file using outreg2 syntax Additional programming resources O bit.ly/statacode download all examples from this cheat sheet in a do-file 🔜 ado update adolist ssc install adolist List/copy user-written ado-files Update user-written ado-files C net install package, from (https://raw.githubusercontent.com/username/repo/master) install a package from a Github repository

https://github.com/andrewheiss/SublimeStataEnhanced configure Sublime text for Stata 11–15



Tim Essam (tessam@usaid.gov) • Laura Hughes (lhughes@usaid.gov) inspired by RStudio's awesome Cheat Sheets (rstudio.com/resources/cheatsheets) follow us @StataRGIS and @flaneuseks

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