

Exercise: Macros, matrices and loops

Task 1

Open the pre-installed dataset „auto.dta“ and run two-sample t-tests for the following variables: price mpg rep78 headroom trunk weight length. For each t-test, the group variable should be “foreign”.

Task 2

Repeat the first task but now first collect all variables in a macro and then use a loop to perform the t-tests.

Task 3

Now create 6 vectors (i.e. matrices with only one column) which have as many rows as there are variables to be tested (try to solve this in a general way rather than counting the variables manually; hint: one of Stata’s string functions will help you). Name these vectors A, B, C, D, E, and F. Vector A should have the tested variables as rownames.

Task 4

Inside your loop, let Stata store the following values in your vectors: the number of observations in the first sample (in vector A), the mean of the first sample (in vector B), the number of observations in the second sample (in vector C), the mean of the second sample (in vector D), the difference between the mean of sample 2 and 1 (in vector E), and the t-tests’ p-value (in vector F).