REGRESSION IN EVIEWS

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Notation

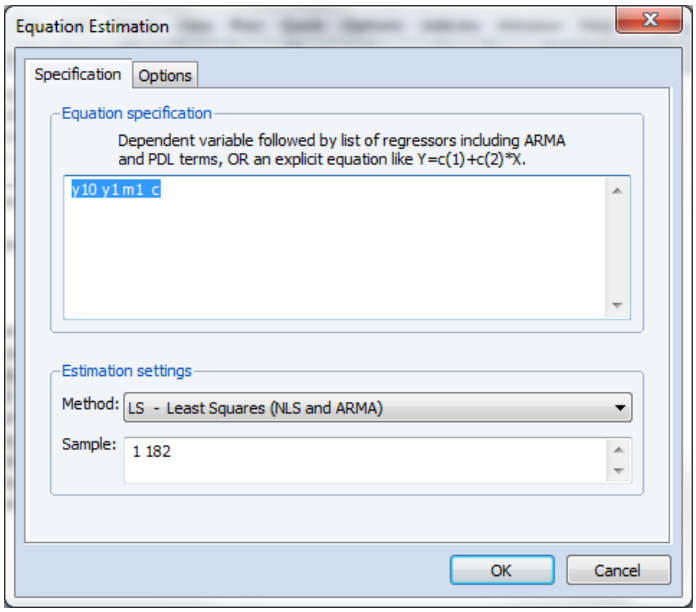
EVIEWS commands or menu commands are printed in the `courier` type.

`LMC`	- left mouse click
`RMC`	- right mouse click
`DMC`	- double click

Regression

There are several ways to run a regression. Assume you have three variables "y10" and "y1" and "m1" in your workfile and you want to regress the dependent variable "y10" on explanatory variables "y1" and "m1", ie. you want to estimate the parameters β_1 and β_2 and β_3 in

$$y10_t = \beta_1 + \beta_2\, y1_t + \beta_3\, m1_t + \varepsilon_t.$$



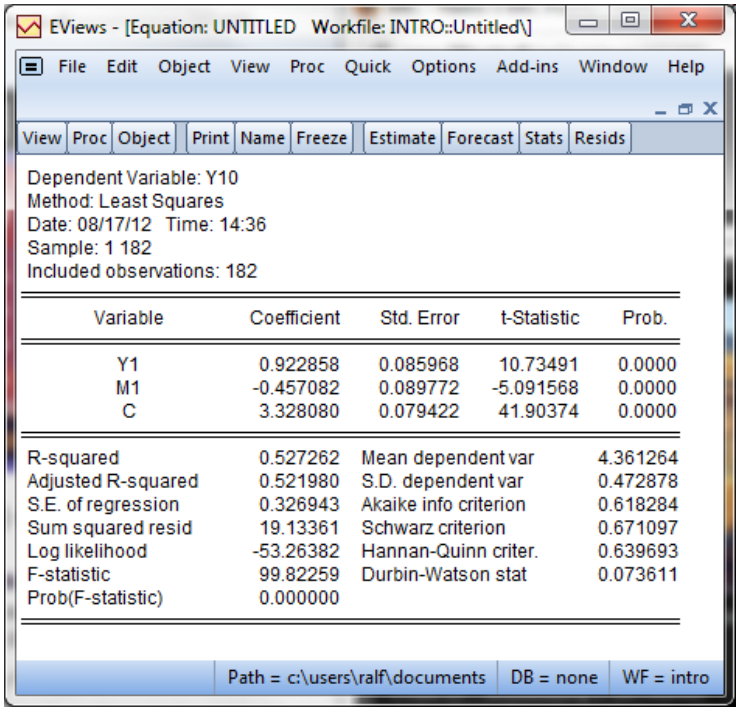
- Select "y10", "y1" and "m1".
- `DMC` and `Open equation`
- In the equation specification window (see right) you will see "y10 y1 m1 c". The variables will appear in the order in which you selected them initially. The first variable is the dependent variable and all others will be treated as explanatory variables. EVIEWS also automatically adds in the constant "c". If you want to estimate without a constant term you just delete the "c". You can also change the order of the variables at this stage. If you want to add further variables you can just add their names here. You can also add lagged variables (if you are dealing with time series) by adding, e.g., "y10(-1)" in case you wanted to add $y10_{t-1}$ to the equation.
- Click `OK`

You will receive a standard regression output, which you should be able to interpret. In any doubt, consult your Data Analysis notes or a standard statistics textbook..

Again you can perform this operation from the command line

- `ls y10 y1 m1 c`
- `enter`

and you receive the identical output. Here "`ls`" stands for "least squares" which will deliver (if you estimate a linear model) deliver OLS estimates.



The `View` button on the top left of the Equation window gives you a list of options in order to visualise your regression results and to perform a variety of tests. If you want to re-estimate the equation with a slightly different specification, choose the `Estimate` button and you will be returned to the equation specification window.

Once you close the estimation window your regression results will be lost. If you need to save them it is recommended that you save the estimation window. This is done my clicking the `OBJECT` button and then `NAME`. Once you entered a name a new object will appear in your workfile. It will have a little "=" symbol associated with it indicating that it is an equation object.

Sometimes you will need the regression residuals for further manipulation and you will want to store them. This can be achieved in two different ways. Either you click PROC – MAKE RESIDUAL SERIES in the equation window, or you use the command window.

- `series res1 = resid`

Recall that the "resid" time series always contains the residuals of the last regression and hence the last regression residuals will be saved in a new series object called "res1". Once you run a new regression the residuals in "resid" will change, but the residuals in "res1" will remain unchanged.

Also note that the "β" object in your workfile (with the name "c") will always store the parameters of the last regression you run, much like the "resid" data series object. As with the residuals, if you want to store the parameter values you need to create a new coefficient vector by typing the following command in the command line:

- `coef c1 = c`

which saves a new coefficient object named "c1". The initial `"coef"` in that command indicated to EVIEWS that you want to create a new coefficient command.

Closing a regression window which you did not save in the workspace will merely delete the regression window but not the data series used. Hence you can safely answer "yes" when you are asked whether you want to delete the equation.