estimation options — Estimation options

Syntax

_estimation_cmd ... [ , options ]

options Description

Model

**noconstant** suppress constant term
**offset(varname_o)** include varname_o in model with coefficient constrained to 1
**exposure(varname_e)** include ln(varname_e) in model with coefficient constrained to 1
**constraints(constraints)** apply specified linear constraints
**collinear** keep collinear variables

Reporting

**level(#)*** set confidence level; default is level(95)
**nokskip** perform overall model test as a likelihood-ratio test
**nocnsreport** do not display constraints
**noomitted** do not display omitted collinear variables
**vsquish** suppress blank space separating factor variables or time-series variables
**noemptycells** do not display empty interaction cells of factor variables
**baselevels** report base levels whose bases cannot be inferred
**allbaselevels** display all base levels for factor variables and interactions
**nofvlabel** display factor-variable level values rather than value labels
**fvwrap(#)*** allow # lines when wrapping long value labels
**fvrapon(style)** apply style for wrapping long value labels;
**cformat(\%fmt)** format for coefficients, standard errors, and confidence limits
**pformat(\%fmt)** format for p-values
**sformat(\%fmt)** format for test statistics
**nolstretch** do not automatically widen coefficient table for long variable names

Integration

**intmethod(intmethod)** integration method for random-effects models
**intpoints(#)*** use # integration (quadrature) points
**coeflegend** display legend instead of statistics

Description

This entry describes the options common to many estimation commands. Not all the options documented here work with all estimation commands. See the documentation for the particular estimation command; if an option is listed there, it is applicable.
Options

**Model**

- **noconstant** suppresses the constant term (intercept) in the model.

- **offset(varname<sub>_o_</sub>)** specifies that varname<sub>_o_</sub> be included in the model with the coefficient constrained to be 1.

- **exposure(varname<sub>_e_</sub>)** specifies a variable that reflects the amount of exposure over which the depvar events were observed for each observation; \( \ln(varname<sub>_e_</sub>) \) with coefficient constrained to be 1 is entered into the log-link function.

- **constraints(numlist | matname)** specifies the linear constraints to be applied during estimation. The default is to perform unconstrained estimation. See [R] reg3 for the use of constraints in multiple-equation contexts.

  - **constraints(numlist)** specifies the constraints by number after they have been defined by using the constraint command; see [R] constraint. Some commands (for example, slogit) allow only constraints(numlist).

  - **constraints(matname)** specifies a matrix containing the constraints; see [P] makecns.

  - **constraints(clist)** is used by some estimation commands, such as mlogit, where clist has the form \(#[-#] [ , #[-#] \ldots ]\).

- **collinear** specifies that the estimation command not omit collinear variables. Usually, there is no reason to leave collinear variables in place, and, in fact, doing so usually causes the estimation to fail because of the matrix singularity caused by the collinearity. However, with certain models, the variables may be collinear, yet the model is fully identified because of constraints or other features of the model. In such cases, using the collinear option allows the estimation to take place, leaving the equations with collinear variables intact. This option is seldom used.

**Reporting**

- **level(#)** specifies the confidence level, as a percentage, for confidence intervals. The default is level(95) or as set by set level; see [U] 20.7 Specifying the width of confidence intervals.

- **noskip** specifies that a full maximum-likelihood model with only a constant for the regression equation be fit. This model is not displayed but is used as the base model to compute a likelihood-ratio test for the model test statistic displayed in the estimation header. By default, the overall model test statistic is an asymptotically equivalent Wald test of all the parameters in the regression equation being zero (except the constant). For many models, this option can substantially increase estimation time.

- **nocnsreport** specifies that no constraints be reported. The default is to display user-specified constraints above the coefficient table.

- **noomitted** specifies that variables that were omitted because of collinearity not be displayed. The default is to include in the table any variables omitted because of collinearity and to label them as “(omitted)”.

- **vsquish** specifies that the blank space separating factor-variable terms or time-series–operated variables from other variables in the model be suppressed.

- **noemptycells** specifies that empty cells for interactions of factor variables not be displayed. The default is to include in the table interaction cells that do not occur in the estimation sample and to label them as “(empty)”.
baselevels and allbaselevels control whether the base levels of factor variables and interactions are displayed. The default is to exclude from the table all base categories.

baselevels specifies that base levels be reported for factor variables and for interactions whose bases cannot be inferred from their component factor variables.

allbaselevels specifies that all base levels of factor variables and interactions be reported.

nofvlabel displays factor-variable level values rather than attached value labels. This option overrides the fvlabel setting; see [R] set showbaselevels.

cformat(%) specifies how to format coefficients, standard errors, and confidence limits in the coefficient table. The maximum format width is 9.

pformat(%) specifies how to format p-values in the coefficient table. The maximum format width is 5.

sformat(%) specifies how to format test statistics in the coefficient table. The maximum format width is 8.

lstretch specifies that the width of the coefficient table not be automatically widened to accommodate longer variable names. The default, lstretch, is to automatically widen the coefficient table up to the width of the Results window. To change the default, use set lstretch off. nolstretch is not shown in the dialog box.

Integration

intmethod(intmethod) specifies the integration method to be used for the random-effects model. It accepts one of four arguments: mvaghermite, the default for all but a crossed random-effects model, performs mean and variance adaptive Gauss–Hermite quadrature; mcaghermite performs mode and curvature adaptive Gauss–Hermite quadrature; ghermite performs nonadaptive Gauss–Hermite quadrature; and laplace, the default for crossed random-effects models, performs the Laplacian approximation.

intpoints(#) specifies the number of integration points to use for integration by quadrature. The default is intpoints(12); the maximum is intpoints(195). Increasing this value improves the accuracy but also increases computation time. Computation time is roughly proportional to its value.

The following option is not shown in the dialog box:

coeflegend specifies that the legend of the coefficients and how to specify them in an expression be displayed rather than displaying the statistics for the coefficients.