Title

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varbasic postestimation — Postestimation tools for varbasic

Postestimation commands

The following postestimation commands are of special interest after `varbasic`:

Command	Description
`fcast compute`	obtain dynamic forecasts
`fcast graph`	graph dynamic forecasts obtained from `fcast compute`
`irf`	create and analyze IRFs and FEVDs
`vargranger`	Granger causality tests
`varlmar`	LM test for autocorrelation in residuals
`varnorm`	test for normally distributed residuals
`varsoc`	lag-order selection criteria
`varstable`	check stability condition of estimates
`varwle`	Wald lag-exclusion statistics

The following standard postestimation commands are also available:

Command	Description
`estat ic`	Akaike's, consistent Akaike's, corrected Akaike's, and Schwarz's Bayesian information criteria (AIC, CAIC, AICc, and BIC)
`estat summarize`	summary statistics for the estimation sample
`estat vce`	variance–covariance matrix of the estimators (VCE)
`estimates`	cataloging estimation results
`etable`	table of estimation results
`forecast`	dynamic forecasts and simulations
`lincom`	point estimates, standard errors, testing, and inference for linear combinations of coefficients
`lrtest`	likelihood-ratio test
`margins`	marginal means, predictive margins, marginal effects, and average marginal effects
`marginsplot`	graph the results from margins (profile plots, interaction plots, etc.)
`nlcom`	point estimates, standard errors, testing, and inference for nonlinear combinations of coefficients
`predict`	linear predictions and their SEs; residuals
`predictnl`	point estimates, standard errors, testing, and inference for generalized predictions
`test`	Wald tests of simple and composite linear hypotheses
`testnl`	Wald tests of nonlinear hypotheses

predict

Description for predict

`predict` creates a new variable containing predictions such as linear predictions and residuals.

Menu for predict

Statistics > Postestimation

Syntax for predict

`predict` [*type*] *newvar* [*if*] [*in*] [`,` *statistic* `equation(`*eqno*|*eqname*`)`]

statistic	Description
Main	
`xb`	linear prediction; the default
`stdp`	standard error of the linear prediction
`residuals`	residuals

These statistics are available both in and out of sample; type `predict ... if e(sample) ...` if wanted only for the estimation sample.

Options for predict

Main

`xb`, the default, calculates the linear prediction for the specified equation.

`stdp` calculates the standard error of the linear prediction for the specified equation.

`residuals` calculates the residuals.

`equation(`*eqno*|*eqname*`)` specifies the equation to which you are referring.

`equation()` is filled in with one *eqno* or *eqname* for the `xb`, `stdp`, and `residuals` options. For example, `equation(#1)` would mean that the calculation is to be made for the first equation, `equation(#2)` would mean the second, and so on. You could also refer to the equation by its name; thus, `equation(income)` would refer to the equation named income and `equation(hours)`, to the equation named hours.

If you do not specify `equation()`, the results are the same as if you specified `equation(#1)`.

For more information on using `predict` after multiple-equation estimation commands, see [R] **predict**.

margins

Description for margins

`margins` estimates margins of response for linear predictions.

Menu for margins

Statistics > Postestimation

Syntax for margins

`margins` [*marginlist*] [`,` *options*]

`margins` [*marginlist*] `,` `predict(`*statistic* ...`)` [*options*]

statistic	Description
default	linear predictions for each equation
`xb`	linear prediction for a specified equation
`stdp`	not allowed with `margins`
`residuals`	not allowed with `margins`

`xb` defaults to the first equation.

Statistics not allowed with `margins` are functions of stochastic quantities other than `e(b)`.

For the full syntax, see [R] **margins**.

Remarks and examples

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▷ Example 1

All the postestimation commands discussed in [TS] **var postestimation** work after `varbasic`. Suppose that we are interested in testing the hypothesis that there is no autocorrelation in the vector autoregressive disturbances. Continuing example 1 from [TS] **varbasic**, we now use `varlmar` to test this hypothesis.

```
. use https://www.stata-press.com/data/r18/lutkepohl2
(Quarterly SA West German macro data, Bil DM, from Lutkepohl 1993 Table E.1)
. varbasic dln_inv dln_inc dln_consump if qtr<=tq(1978q4)
  (output omitted)
. varlmar
```

Lagrange-multiplier test

lag	chi2	df	Prob > chi2
1	5.5871	9	0.78043
2	6.3189	9	0.70763

H0: no autocorrelation at lag order

Because we cannot reject the null hypothesis of no autocorrelation in the residuals, this test does not indicate any model misspecification.

◁

Also see

[TS] **varbasic** — Fit a simple VAR and graph IRFs or FEVDs

[U] **20 Estimation and postestimation commands**