

**varbasic postestimation** — Postestimation tools for varbasic

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## Postestimation commands

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

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

The following standard postestimation commands are also available:

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

<i>statistic</i>	Description
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Main

<code>xb</code>	linear prediction; the default
<code>stdp</code>	standard error of the linear prediction
<code>residuals</code>	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]
```

<i>statistic</i>	Description
default	linear predictions for each equation
xb	linear prediction for a specified equation
stdp	not allowed with <code>margins</code>
<u>residuals</u>	not allowed with <code>margins</code>

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

### ▷ 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 VAR 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**

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