vec postestimation - Postestimation tools for vec

Postestimation commands predict margins Remarks and examples Also see

# **Postestimation commands**

The following postestimation commands are of special interest after vec:

Command	Description
fcast compute	obtain dynamic forecasts
fcast graph	graph dynamic forecasts obtained from fcast compute
irf	create and analyze IRFs and FEVDs
veclmar	LM test for autocorrelation in residuals
vecnorm	test for normally distributed residuals
vecstable	check stability condition of estimates

The following standard postestimation commands are also available:

Command	Description
estat ic	Akaike's, consistent Akaike's, corrected Akaike's, and Schwarz's Bayesian in- formation 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 expected values, residuals, and cointegrating equations.

#### Menu for predict

Statistics > Postestimation

#### Syntax for predict

$predict [type] newvar [if] [in] [, statistic \underline{equation}(eqno   eqname)]$		
statistic	Description	
Main		
xb	fitted value for the specified equation; the default	
stdp	standard error of the linear prediction	
<u>r</u> esiduals	residuals	
ce	the predicted value of specified cointegrating equation	
levels	one-step prediction of the level of the endogenous variable	
$\underline{u}$ sece( <i>varlist</i> <sub>ce</sub> )	compute the predictions using previously predicted cointegrating equations	

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 fitted values for the specified equation. The form of the VEC model implies that these fitted values are the one-step predictions for the first-differenced variables.

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

residuals calculates the residuals from the specified equation of the VEC model.

ce calculates the predicted value of the specified cointegrating equation.

- levels calculates the one-step prediction of the level of the endogenous variable in the requested equation.
- $usece(varlist_{ce})$  specifies that previously predicted cointegrating equations saved under the names in  $varlist_{ce}$  be used to compute the predictions. The number of variables in the  $varlist_{ce}$  must equal the number of cointegrating equations specified in the model.

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

equation() is filled in with one *eqno* or *eqname* for xb, residuals, stdp, ce, and levels options. 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. equation(D\_income) would refer to the equation named D\_income and equation(\_ce1), to the first cointegrating equation, which is named \_ce1 by vec.

If you do not specify equation(), the results are 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 [mar	ginlist ] [, options]	
margins [marginlist], predict(statistic) [predict(statistic)] [options]		
statistic	Description	
default	linear predictions for each equation	
xb	linear prediction for a specified equation	
stdp	not allowed with margins	
<u>r</u> esiduals	not allowed with margins	
ce	not allowed with margins	
<u>l</u> evels	not allowed with margins	
$\underline{u}$ sece( <i>varlist</i> <sub>ce</sub> )	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**

#### stata.com

Remarks are presented under the following headings:

Model selection and inference Forecasting

## Model selection and inference

See the following sections for information on model selection and inference after vec.

- [TS] irf Create and analyze IRFs, dynamic-multiplier functions, and FEVDs
- [TS] varsoc Obtain lag-order selection statistics for VAR and VEC models
- [TS] veclmar LM test for residual autocorrelation after vec
- [TS] vecnorm Test for normally distributed disturbances after vec
- [TS] vecrank Estimate the cointegrating rank of a VEC model
- [TS] vecstable Check the stability condition of VEC model estimates

#### Forecasting

See the following sections for information on obtaining forecasts after vec:

[TS] fcast compute — Compute dynamic forecasts[TS] fcast graph — Graph forecasts after fcast compute

## Also see

- [TS] **vec** Vector error-correction models
- [TS] vec intro Introduction to vector error-correction models

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