Postestimation commands

The following postestimation commands are available after xtivreg:

Command	Description
* contrast	contrasts and ANOVA-style joint tests of parameters
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
hausman	Hausman's specification test
lincom	point estimates, standard errors, testing, and inference for linear combinations of parameters
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 parameters
predict	linear predictions, first-differenced error components
predictnl	point estimates, standard errors, testing, and inference for generalized predictions
* pwcompare	pairwise comparisons of parameters
test	Wald tests of simple and composite linear hypotheses
testnl	Wald tests of nonlinear hypotheses

*contrast and pwcompare are not appropriate after xtivreg, fd.

predict

Description for predict

predict creates a new variable containing predictions such as fitted values and predictions.

Menu for predict

Statistics > Postestimation

Syntax for predict

For all but the first-differenced estimator

predict [*type*] *newvar* [*if*] [*in*] [, *statistic*]

First-differenced estimator

predict [*type*] *newvar* [*if*] [*in*] [, *FD_statistic*]

statistic	Description
Main	
xb	$\mathbf{Z}_{it}\hat{\boldsymbol{\delta}}$, fitted values; the default
ue	$\hat{\mu}_i + \hat{\nu}_{it}$, the combined residual
* xbu	$\mathbf{Z}_{it}\hat{\boldsymbol{\delta}} + \hat{\mu}_i$, prediction including effect
* u	$\hat{\mu}_i$, the fixed- or random-error component
* e	$\hat{\nu}_{it}$, the overall error component

Unstarred statistics are available both in and out of sample; type predict ... if e(sample) ... if wanted only for the estimation sample. Starred statistics are calculated only for the estimation sample, even when if e(sample) is not specified.

FD_statistic	Description
Main	
xb	$\mathbf{x}_j\mathbf{b}$, fitted values for the first-differenced model; the default
e	$e_{it} - e_{it-1}$, the first-differenced overall error component

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, that is, $\mathbf{Z}_{it}\hat{\boldsymbol{\delta}}$.

ue calculates the prediction of $\hat{\mu}_i + \hat{\nu}_{it}$. This is not available after the first-differenced model.

xbu calculates the prediction of $\mathbf{Z}_{it}\hat{\boldsymbol{\delta}} + \hat{\mu}_i$, the prediction including the fixed or random component. This is not available after the first-differenced model.

u calculates the prediction of $\hat{\mu}_i$, the estimated fixed or random effect. This is not available after the first-differenced model.

e calculates the prediction of $\hat{\nu}_{it}$.

margins

Description for margins

margins estimates margins of response for fitted values.

Menu for margins

Statistics > Postestimation

Syntax for margins

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

margins [*marginlist*] , <u>p</u>redict(*statistic ...*) [*options*]

For all but the first-differenced estimator

statistic	Description
xb	$\mathbf{Z}_{it}\hat{\boldsymbol{\delta}}$, fitted values; the default
ue	not allowed with margins
xbu	not allowed with margins
u	not allowed with margins
e	not allowed with margins

First-differenced estimator

statistic	Description
xb	$\mathbf{x}_j\mathbf{b}$, fitted values for the first-differenced model; the default
e	not allowed with margins

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

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

Also see

[XT] **xtivreg** — Instrumental variables and two-stage least squares for panel-data models

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

For suggested citations, see the FAQ on citing Stata documentation.