

xtivreg postestimation — Postestimation tools for xtivreg
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Description

The following postestimation commands are available after `xtivreg`:

Command	Description
<code>contrast</code>	contrasts and ANOVA-style joint tests of estimates
<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>forecast</code>	dynamic forecasts and simulations
<code>hausman</code>	Hausman’s specification test
<code>lincom</code>	point estimates, standard errors, testing, and inference for linear combinations of coefficients
<code>margins</code>	marginal means, predictive margins, marginal effects, and average marginal effects
<code>marginsplot</code>	graph the results from margins (profile plots, interaction plots, etc.)
<code>nlcom</code>	point estimates, standard errors, testing, and inference for nonlinear combinations of coefficients
<code>predict</code>	predictions, residuals, influence statistics, and other diagnostic measures
<code>predictnl</code>	point estimates, standard errors, testing, and inference for generalized predictions
<code>pwcompare</code>	pairwise comparisons of estimates
<code>test</code>	Wald tests of simple and composite linear hypotheses
<code>testnl</code>	Wald tests of nonlinear hypotheses

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]
```

<i>statistic</i>	Description
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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.

<i>FD_statistic</i>	Description
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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.

Menu for predict

Statistics > Postestimation > Predictions, residuals, etc.

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 $\hat{\nu}_{it}$.

Also see

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

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