

xttobit postestimation — Postestimation tools for xttobit

[Description](#)
 [Syntax for predict](#)
 [Menu for predict](#)
 [Options for predict](#)
 [Also see](#)

Description

The following postestimation commands are available after `xttobit`:

Command	Description
<code>contrast</code>	contrasts and ANOVA-style joint tests of estimates
<code>estat ic</code>	Akaike's and Schwarz's Bayesian information criteria (AIC 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>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 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

```
predict [type] newvar [if] [in] [, statistic nooffset]
```

<i>statistic</i>	Description
Main	
<code>xb</code>	linear prediction assuming $\nu_i = 0$, the default
<code>stdp</code>	standard error of the linear prediction
<code>stdf</code>	standard error of the linear forecast
<code>pr0(<i>a</i>,<i>b</i>)</code>	$\Pr(a < y < b)$ assuming $\nu_i = 0$
<code>e0(<i>a</i>,<i>b</i>)</code>	$E(y \mid a < y < b)$ assuming $\nu_i = 0$
<code>ystar0(<i>a</i>,<i>b</i>)</code>	$E(y^*)$, $y^* = \max\{a, \min(y, b)\}$ assuming $\nu_i = 0$

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

where a and b may be numbers or variables; a missing ($a \geq .$) means $-\infty$, and b missing ($b \geq .$) means $+\infty$; see [U] 12.2.1 Missing values.

Menu for predict

Statistics > Postestimation > Predictions, residuals, etc.

Options for predict

Main

`xb`, the default, calculates the linear prediction.

`stdp` calculates the standard error of the prediction. It can be thought of as the standard error of the predicted expected value or mean for the observation's covariate pattern. The standard error of the prediction is also referred to as the standard error of the fitted value.

`stdf` calculates the standard error of the forecast. This is the standard error of the point prediction for 1 observation. It is commonly referred to as the standard error of the future or forecast value. By construction, the standard errors produced by `stdf` are always larger than those produced by `stdp`; see *Methods and formulas* in [R] `regress`.

`pr0(a,b)` calculates estimates of $\Pr(a < y < b \mid \mathbf{x} = \mathbf{x}_{it}, \nu_i = 0)$, which is the probability that y would be observed in the interval (a, b) , given the current values of the predictors, \mathbf{x}_{it} , and given a zero random effect. In the discussion that follows, these two conditions are implied.

a and b may be specified as numbers or variable names; lb and ub are variable names;

`pr0(20,30)` calculates $\Pr(20 < y < 30)$;

`pr0(lb,ub)` calculates $\Pr(lb < y < ub)$; and

`pr0(20,ub)` calculates $\Pr(20 < y < ub)$.

a missing ($a \geq .$) means $-\infty$; `pr0(.,30)` calculates $\Pr(-\infty < y < 30)$;

`pr0(lb,30)` calculates $\Pr(-\infty < y < 30)$ in observations for which $lb \geq .$ (and calculates $\Pr(lb < y < 30)$ elsewhere).

b missing ($b \geq .$) means $+\infty$; `pr0(20,.)` calculates $\Pr(+\infty > y > 20)$;

`pr0(20,ub)` calculates $\Pr(+\infty > y > 20)$ in observations for which $ub \geq .$ (and calculates $\Pr(20 < y < ub)$ elsewhere).

`e0(a,b)` calculates estimates of $E(y \mid a < y < b, \mathbf{x} = \mathbf{x}_{it}, \nu_i = 0)$, which is the expected value of y conditional on y being in the interval (a, b) , meaning that y is truncated. a and b are specified as they are for `pr0()`.

`ystar0(a,b)` calculates estimates of $E(y^* \mid \mathbf{x} = \mathbf{x}_{it}, \nu_i = 0)$, where $y^* = a$ if $y \leq a$, $y^* = b$ if $y \geq b$, and $y^* = y$ otherwise, meaning that y^* is the censored version of y . a and b are specified as they are for `pr0()`.

`nooffset` is relevant only if you specify `offset(varname)` for `xttobit`. It modifies the calculations made by `predict` so that they ignore the offset variable; the linear prediction is treated as $\mathbf{x}_{it}\beta$ rather than $\mathbf{x}_{it}\beta + \text{offset}_{it}$.

Also see

[XT] `xttobit` — Random-effects tobit models

[U] 20 Estimation and postestimation commands