

predict advanced — predict's advanced features

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Description

predict's features are documented in

[ERM] [eregress predict](#)

[ERM] [eintreg predict](#)

[ERM] [eprobit predict](#)

[ERM] [eoprobit predict](#)

[ERM] [predict treatment](#)

Here, we document predict's advanced features.

Syntax

```
predict [type] newvar [if] [in] [, treatstatistic howcalculated treatmodifier
oprobitmodifier advanced]
```

In some cases, more than one new variable needs to be specified:

```
predict [type] {stub* newvarlist} [if] [in] [, treatstatistic howcalculated
treatmodifier oprobitmodifier advanced]
```

With the exception of *advanced*, you have seen this syntax in the other `predict` manual entries. We will not cover old ground.

<i>advanced</i>	Description
<code>equation(depvar)</code>	calculate results for specified dependent variable
<code>nooffset</code>	ignore option <code>offset()</code> specified when model was fit in making calculation
<code>pr(a, b)</code>	calculate $\Pr(a < \mathbf{x}_i\beta + e_i.depvar < b)$; <i>a</i> and <i>b</i> are numbers or variable names
<code>e(a, b)</code>	calculate $E(y_i a < y_i < b)$, where $y_i = \mathbf{x}_i\beta + e_i.depvar$; <i>a</i> and <i>b</i> are numbers or variable names
<code>scores</code>	calculate equation-level score variables

Also note that even though option `mean` was not included in *treatstatistic* for `eprobit` and `eoprobit`, it is allowed with them. `mean` returns the probability of a positive outcome after `eprobit` and returns the expected value of the outcome after `eoprobit`.

Remarks and examples

The most important of the advanced features is the `equation()` option. Previously, we documented that `predict` calculates results for the main equation only. That was not true. The `equation()` option can be used to target the other equations. The `equation()` option is important because it can apply so many of `predict`'s features to them.

ERMs provide three types of equations. The `endogenous()` option names two of them and leaves the other unnamed:

```
endogenous(..., none specified ...)
endogenous(..., probit ...)
endogenous(..., oprobit ...)
```

none specified should have been called `linear`. Meanwhile, `entreat()` adds `probit` or `oprobit` equations, `select()` adds `probit` equations, and `tobitselect()` adds `linear` equations. Thus, there are three types of equations in total: `linear`, `probit`, and `oprobit`.

`equation()` can be used to provide the following `predict` features with the other equations in the model:

Option	Description
Linear equations	
<code>mean</code>	linear prediction
<code>xb</code>	linear prediction excluding complications
<code>ystar()</code>	censored prediction
<code>e()</code>	constrained expected value
<code>pr()</code>	probability in range
Probit equations	
<code>xb</code>	linear prediction excluding complications
<code>pr</code>	probability of positive outcome
<code>mean</code>	synonym for <code>pr</code>
Ordered probit equations	
<code>xb</code>	linear prediction excluding complications
<code>pr</code>	probability of each outcome
<code>mean</code>	expected value of outcome

Note 1: Option `outlevel(#)` is used with `pr` in `oprobit` equations to restrict the calculation to the specified outcome.

Note 2: When `equation(devar)` is the main equation, you can use any of `predict`'s options.

Note 3: For the main equation, options `e()` and `pr()` can be used with *howcalculated* options `fix()`, `base()`, and `target()`.

Options not allowed with `equation()` are disallowed. The disallowed options include `predict`'s treatment options as well as `fix()`, `base()`, and `target()`.

Methods and formulas

See *Methods and formulas* of [ERM] [eprobit postestimation](#).

Also see

[ERM] **eintreg postestimation** — Postestimation tools for eintreg

[ERM] **eintreg predict** — predict after eintreg

[ERM] **eoprobit postestimation** — Postestimation tools for eoprobit

[ERM] **eoprobit predict** — predict after eoprobit

[ERM] **eprobit postestimation** — Postestimation tools for eprobit

[ERM] **eprobit predict** — predict after eprobit

[ERM] **eregress postestimation** — Postestimation tools for eregress

[ERM] **eregress predict** — predict after eregress