Postestimation commands

The following postestimation commands are available after `eivreg`:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td><code>contrast</code></td>
<td>contrasts and ANOVA-style joint tests of estimates</td>
</tr>
<tr>
<td><code>estat summarize</code></td>
<td>summary statistics for the estimation sample</td>
</tr>
<tr>
<td><code>estat vce</code></td>
<td>variance–covariance matrix of the estimators (VCE)</td>
</tr>
<tr>
<td><code>estimates</code></td>
<td>cataloging estimation results</td>
</tr>
<tr>
<td><code>lincom</code></td>
<td>point estimates, standard errors, testing, and inference for linear combinations of coefficients</td>
</tr>
<tr>
<td><code>margins</code></td>
<td>marginal means, predictive margins, marginal effects, and average marginal effects</td>
</tr>
<tr>
<td><code>marginsplot</code></td>
<td>graph the results from margins (profile plots, interaction plots, etc.)</td>
</tr>
<tr>
<td><code>nlcom</code></td>
<td>point estimates, standard errors, testing, and inference for nonlinear combinations of coefficients</td>
</tr>
<tr>
<td><code>predict</code></td>
<td>linear predictions</td>
</tr>
<tr>
<td><code>pwcompare</code></td>
<td>pairwise comparisons of estimates</td>
</tr>
<tr>
<td><code>test</code></td>
<td>Wald tests of simple and composite linear hypotheses</td>
</tr>
<tr>
<td><code>testnl</code></td>
<td>Wald tests of nonlinear hypotheses</td>
</tr>
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</table>

**predict**

**Description for predict**

`predict` creates a new variable containing the linear prediction assuming that values of the covariates used for the prediction were measured without error.

**Menu for predict**

Statistics > Postestimation

**Syntax for predict**

```
predict [type] newvar [if] [in]
```

Available both in and out of sample; type `predict ... if e(sample) ...` if wanted only for the estimation sample.
margins

Description for margins

margins estimates margins of response for linear predictions.

Menu for margins

Statistics > Postestimation

Syntax for margins

margins [marginlist] [, options]

Remarks and examples

> Example 1

We return to example 1 from [R] eivreg:

```
. use https://www.stata-press.com/data/r16/auto
(1978 Automobile Data)
. eivreg price weight foreign, reliab(weight .85)
assumed Errors-in-variables regression

+--------------------------+--------------------------+
<table>
<thead>
<tr>
<th>variable</th>
<th>assumed reliability</th>
<th>Number of obs</th>
<th>F( 2, 71)</th>
<th>Prob &gt; F</th>
<th>R-squared</th>
<th>Root MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>weight</td>
<td>0.8500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
+--------------------------+--------------------------+

price | Coef.    | Std. Err. | t       | P>|t|   | [95% Conf. Interval] |
-------|----------|-----------|---------|-------|----------------------|
weight | 4.31985  | .7134251  | 6.06    | 0.000 | 2.89732              | 5.742379 |
foreign | 4637.32  | 849.0221  | 5.46    | 0.000 | 2944.418             | 6330.222 |
_cons   | -8287.017| 2390.337  | -3.45   | 0.001 | -13023.21           | -3490.821 |
```

We wish to predict the price of a foreign car that weighs 2,300 pounds. We can use predict because 2,300 pounds is the true weight, not the result of an error-prone measurement.

To make this prediction, first we add the new observation to the dataset.

```
. set obs 75
    number of observations (_N) was 74, now 75
. replace foreign = 1 in 75
    (1 real change made)
. replace weight = 2300 in 75
    (1 real change made)
```
Now, we use `predict` to predict the price of the car.

```
. predict newprice in 75
   (option xb assumed; fitted values)
   (74 missing values generated)
   (predictions assume covariates measured without error)
. list weight foreign newprice in 75

          weight  foreign    newprice
       +-------------------+
       | 75.  2,300  Foreign   6315.957 |
       +-------------------+
```

`predict` issued a note reminding us that the computed predictions assume that the covariates used for prediction are measured without error. In general, you should avoid using `predict` to obtain in-sample predictions unless you first replace the measurement-error covariates with values that are error free.

---

**Also see**

[R] `eivreg` — Errors-in-variables regression

[U] 20 Estimation and postestimation commands