Postestimation commands

The following postestimation commands are available after eivreg:

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<tr>
<th>Command</th>
<th>Description</th>
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<tr>
<td>contrast</td>
<td>contrasts and ANOVA-style joint tests of estimates</td>
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<tr>
<td>estat summarize</td>
<td>summary statistics for the estimation sample</td>
</tr>
<tr>
<td>estat vce</td>
<td>variance–covariance matrix of the estimators (VCE)</td>
</tr>
<tr>
<td>estimates</td>
<td>cataloging estimation results</td>
</tr>
<tr>
<td>etable</td>
<td>table of estimation results</td>
</tr>
<tr>
<td>lincom</td>
<td>point estimates, standard errors, testing, and inference for linear combinations of coefficients</td>
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<tr>
<td>margins</td>
<td>marginal means, predictive margins, marginal effects, and average marginal effects</td>
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<tr>
<td>marginsplot</td>
<td>graph the results from margins (profile plots, interaction plots, etc.)</td>
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<tr>
<td>nlcom</td>
<td>point estimates, standard errors, testing, and inference for nonlinear combinations of coefficients</td>
</tr>
<tr>
<td>predict</td>
<td>linear predictions</td>
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<td>pwcompare</td>
<td>pairwise comparisons of estimates</td>
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<tr>
<td>test</td>
<td>Wald tests of simple and composite linear hypotheses</td>
</tr>
<tr>
<td>testnl</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/r17/auto
(1978 automobile data)
. eivreg price weight foreign, reliab(weight .85)
```

Errors-in-variables regression

```
  Number of obs = 74
  weight 0.8500 F( 2, 71) = 18.46
  * 1.0000 Prob > F = 0.0000
  R-squared = 0.6483
  Root MSE = 1773.54

  price    Coefficient  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    -8257.017    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

<table>
<thead>
<tr>
<th>weight</th>
<th>foreign</th>
<th>newprice</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,300</td>
<td>Foreign</td>
<td>6315.957</td>
</tr>
</tbody>
</table>
```

`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