eivreg postestimation — Postestimation tools for eivreg

Postestimation commands predict margins Remarks and examples Also see

Postestimation commands

The following postestimation commands are available after `eivreg`:

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

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/r19/auto
(1978 automobile data)
. eivreg price weight foreign, reliab(weight .85)
Errors-in-variables regression
```

Variable	Assumed reliability
weight	0.8500
*	1.0000

```
                                Number of obs     =         74
                                F(  2,        71) =      18.46
                                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
```

	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