scobit postestimation — Postestimation tools for scobit
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Postestimation commands predict margins Remarks and examples Also see

# **Postestimation commands**

The following postestimation commands are available after scobit:

Command	and Description				
contrast	contrasts and ANOVA-style joint tests of parameters				
estat ic	Akaike's, consistent Akaike's, corrected Akaike's, and Schwarz's Bayesian infor- mation criteria (AIC, CAIC, AICc, and BIC, respectively)				
estat summarize	summary statistics for the estimation sample				
estat vce	variance-covariance matrix of the estimators (VCE)				
estat (svy)	postestimation statistics for survey data				
estimates	cataloging estimation results				
etable	table of estimation results				
* forecast	dynamic forecasts and simulations				
lincom	point estimates, standard errors, testing, and inference for linear combinations of parameters				
* lrtest	likelihood-ratio test				
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	probabilities, linear predictions and their SEs, etc.				
predictnl	point estimates, standard errors, testing, and inference for generalized predictions				
pwcompare	pairwise comparisons of parameters				
suest	seemingly unrelated estimation				
test	Wald tests of simple and composite linear hypotheses				
testnl	Wald tests of nonlinear hypotheses				

\*forecast and lrtest are not appropriate with svy estimation results.

## predict

## **Description for predict**

predict creates a new variable containing predictions such as probabilities, linear predictions, and standard errors.

### Menu for predict

Statistics > Postestimation

### Syntax for predict

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

predict [type] stub\* [if ] [in], scores

statistic	Description				
Main					
pr	probability of a positive outcome; the default				
xb	$\mathbf{x}_i \mathbf{b}$ , linear prediction				
stdp	standard error of the linear prediction				

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

## **Options for predict**

Main

pr, the default, calculates the probability of a positive outcome.

xb calculates the linear prediction.

stdp calculates the standard error of the linear prediction.

nooffset is relevant only if you specified offset(*varname*) for scobit. It modifies the calculations made by predict so that they ignore the offset variable; the linear prediction is treated as  $\mathbf{x}_j \mathbf{b}$  rather than as  $\mathbf{x}_j \mathbf{b} + \text{offset}_j$ .

scores calculates equation-level score variables.

The first new variable will contain  $\partial \ln L / \partial (\mathbf{x}_i \boldsymbol{\beta})$ .

The second new variable will contain  $\partial \ln L / \partial \ln \alpha$ .

## margins

#### **Description for margins**

margins estimates margins of response for probabilities and linear predictions.

#### Menu for margins

Statistics > Postestimation

#### Syntax for margins

margins [ <i>m</i>	arginlist] [, options]		
margins [m	arginlist], predict(statistic) [predict(statistic)] [options]		
statistic	Description		
pr	probability of a positive outcome; the default		
xb	$\mathbf{x}_i \mathbf{b}$ , linear prediction		
stdp	not allowed with margins		

Statistics not allowed with margins are functions of stochastic quantities other than e(b).

For the full syntax, see [R] margins.

## **Remarks and examples**

Once you have fit a model, you can obtain the predicted probabilities by using the predict command for both the estimation sample and other samples; see [U] 20 Estimation and postestimation commands and [R] predict. Here we will make only a few additional comments.

predict without arguments calculates the predicted probability of a positive outcome. With the xb option, it calculates the linear combination  $\mathbf{x}_j \mathbf{b}$ , where  $\mathbf{x}_j$  are the independent variables in the *j*th observation and **b** is the estimated parameter vector.

With the stdp option, predict calculates the standard error of the prediction, which is *not* adjusted for replicated covariate patterns in the data.

#### Example 1

In example 1 of [R] scobit, we fit the model scobit foreign mpg. To obtain predicted probabilities, we type

. use https://www.stata-press.com/data/r19/auto (1978 automobile data)								
. keep make mpg weight foreign								
. scobit foreign mpg (output omitted)								
. predict p (option <b>pr</b> assumed; Pr(foreign))								
. summarize foreign p								
Variable	Obs	Mean	Std. dev.	Min	Max			
foreign	74	.2972973	.4601885	0	1			
р	74	.2974049	.182352	.0714664	.871624			

## Also see

[R] scobit — Skewed logistic regression

[U] 20 Estimation and postestimation commands

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