

**threshold postestimation** — Postestimation tools for threshold[Postestimation commands](#)[predict](#)[Remarks and examples](#)[Also see](#)

## Postestimation commands

The following standard postestimation commands are available after `threshold`:

Command	Description
<code>estat summarize</code>	summary statistics for the estimation sample
<code>estat vce</code>	variance–covariance matrix of the estimators (VCE)
<code>estimates</code>	cataloging estimation results
<code>forecast</code>	dynamic forecasts and simulations
<code>lincom</code>	point estimates, standard errors, testing, and inference for linear combinations of coefficients
<code>nlcom</code>	point estimates, standard errors, testing, and inference for nonlinear combinations of coefficients
<code>predict</code>	predictions, residuals, influence statistics, and other diagnostic measures
<code>predictnl</code>	point estimates, standard errors, testing, and inference for generalized predictions
<code>test</code>	Wald tests of simple and composite linear hypotheses
<code>testnl</code>	Wald tests of nonlinear hypotheses

# predict

## Description for predict

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

## Menu for predict

Statistics > Postestimation

## Syntax for predict

```
predict [type] newvar [if] [in] [, statistic dynamic(time_constant)]
```

<i>statistic</i>	Description
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Main

<code>xb</code>	linear prediction; the default
<code>stdp</code>	standard error of the linear prediction
<code>residuals</code>	residuals

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

`xb`, the default, calculates the linear prediction.

`stdp` calculates the standard error of the linear prediction.

`residuals` calculates the residuals in the equations for observable variables.

Options

`dynamic(time_constant)` specifies that `predict` begin producing dynamic forecasts at `time_constant`, which must be in the sample for which observations on the dependent variable exist and given in the scale of the time variable specified in `tsset`. For example, `dynamic(tq(2014q4))` causes dynamic predictions to begin in the fourth quarter of 2014, assuming that the time variable is quarterly; see [D] [datetime](#). If the model contains exogenous variables, they must be present for the whole predicted sample. `dynamic()` may not be specified with `stdp` or `residuals`.

## Remarks and examples

[stata.com](http://www.stata.com)

We assume that you have already read [TS] [threshold](#). In this entry, we illustrate some of the features of `predict` after using `threshold` to estimate the parameters of a threshold regression model.

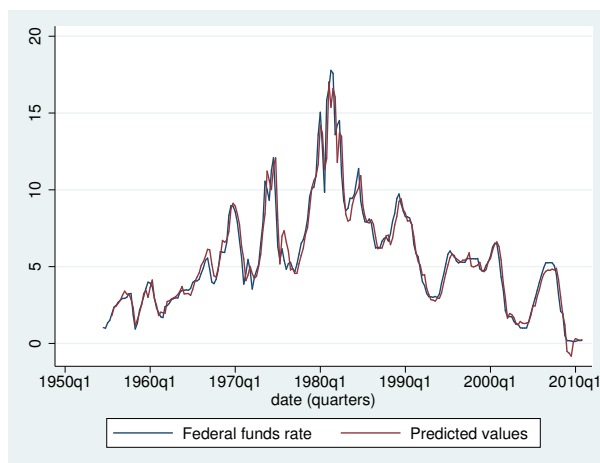
## ► Example 1: One-step ahead predictions

In [example 3](#) of [\[TS\] threshold](#), we selected the threshold autoregression model where the federal funds interest rate (`fedfunds`) is a function of its own first lag, inflation (`inflation`), and output gap (`ogap`). We estimated two thresholds using the Bayesian information criterion and `l2.ogap` as the threshold variable. We refit that model here, but we directly specify two thresholds by using the `nthresholds(2)` option. We obtain the one-step ahead predictions for the dependent variable using the default settings for `predict`. The predictions are stored in the new variable `fedf`.

```
. use http://www.stata-press.com/data/r15/usmacro
(Federal Reserve Economic Data - St. Louis Fed)
. threshold fedfunds, regionvars(l.fedfunds inflation ogap) threshvar(l2.ogap)
> nthresholds(2)
(output omitted)
. predict fedf
(option xb assumed; predicted values)
```

Next, we graph the actual values (`fedfunds`) and predicted values (`fedf`) using `tsline`. We change the label for `fedf` to “Predicted values”; see [\[TS\] tsline](#).

```
. tsline fedfunds fedf, legend(label(2 "Predicted values"))
```



The one-step ahead predicted values follow the actual federal funds interest rate closely.



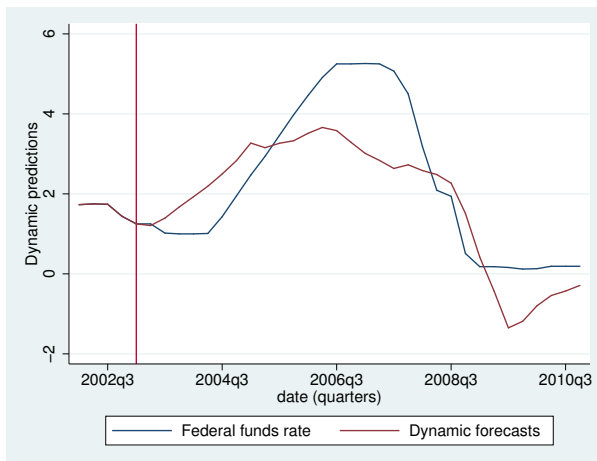
## ► Example 2: Dynamic predictions

Continuing the example above, we may instead want to obtain dynamic predictions and compare them with the actual values. Within `dynamic()`, we specify that dynamic predictions will begin in the first quarter of 2003. Our data were `tsset` as quarterly data, so we use the function `tq()` to convert 2003q1 into a numeric date that Stata understands; see [\[FN\] Date and time functions](#).

```
. predict fedfdyn, dynamic(tq(2003q1))
(option xb assumed; predicted values)
```

We again use `tsline` to plot the actual data and dynamic predictions. We use the `tline()` option to add a vertical line that shows the beginning date of our dynamic predictions and restrict the range to quarters 2002q1 to the end of the sample using `tin()`.

```
. tsline fedfunds fedfdyn if tin(2002q1,), ytitle("Dynamic predictions")  
> tline(2003q1) legend(label(2 "Dynamic forecasts"))
```



The dynamic forecast does well tracking the increase in the federal funds interest rate beginning 2004q3 and the subsequent decline around 2007q1.

◀

### Also see

[TS] [threshold](#) — Threshold regression

[TS] [tsline](#) — Plot time-series data

[U] [20 Estimation and postestimation commands](#)