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forecast exogenous — Declare exogenous variables

Description Menu Syntax Remarks and examples Also see

Description

forecast exogenous declares exogenous variables in the current forecast model.

Menu

Statistics > Time series > Forecasting

Syntax

forecast exogenous varlist

Remarks and examples

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For an overview of the forecast commands, see [TS] **forecast**. This manual entry assumes you have already read that manual entry. forecast exogenous declares exogenous variables in your forecast model.

Before you can solve your model, all the exogenous variables must be filled in with nonmissing values over the entire forecast horizon. When you use forecast solve, Stata first checks your exogenous variables and exits with an error message if any of them contains missing values for any periods being forecast. When you assemble a large model with many variables, it is easy to forget some variables and then have problems obtaining forecasts. forecast exogenous provides you with a mechanism to explicitly declare the exogenous variables in your model so that you do not forget about them.

Declaring exogenous variables with forecast exogenous is not explicitly necessary, but we nevertheless strongly encourage doing so. Stata can check the exogenous variables before solving the model and issue an appropriate error message if missing values are found, whereas troubleshooting models for which forecasting failed is more difficult after the fact.

▶ Example 1

Here we fit a simple single-equation dynamic model with two exogenous variables, x1 and x2:

- . use https://www.stata-press.com/data/r18/forecastex1
- . quietly regress y L.y x1 x2
- . estimates store exregression
- . forecast create myexample Forecast model myexample started.
- . forecast estimates exregression

Added estimation results from regress.
Forecast model myexample now contains 1 endogenous variable.

- . forecast exogenous x1
 - Forecast model myexample now contains 1 declared exogenous variable.
- . forecast exogenous x2

Forecast model myexample now contains 2 declared exogenous variables.

Instead of using forecast exogenous twice, we could have instead typed

. forecast exogenous x1 x2

4

Also see

[TS] **forecast** — Econometric model forecasting

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