xteintreg — Extended random-effects interval regression

Description

`xteintreg` fits a random-effects interval-data regression model that accommodates any combination of endogenous covariates, nonrandom treatment assignment, and endogenous sample selection and also accounts for correlation of observations within panels or within groups.

The dependent variable may be measured as point data, interval data, left-censored data, or right-censored data. Continuous, binary, and ordinal endogenous covariates are allowed. Treatment assignment may be endogenous or exogenous. A probit or tobit model may be used to account for endogenous sample selection.

`xteintreg` fits extended regression models for panel data in the same way that `eintreg` does for cross-sectional data. See [ERM] **eintreg** to learn about these models and how to fit them using `xteintreg`.

Quick start

All *Quick start* examples use an interval-measured dependent variable with the interval's lower bound recorded in variable `y_l` and its upper bound recorded in `y_u`.

Random-effects regression of [`y_l`, `y_u`] on `x` with continuous endogenous covariate `y2` modeled by `x` and `z` using `xtset` data

```
xteintreg y_l y_u x, endogenous(y2 = x z)
```

Same as above, but with binary endogenous covariate `d` modeled by `x` and `z`

```
xteintreg y_l y_u x, endogenous(d = x z, probit)
```

Random-effects regression of [`y_l`, `y_u`] on `x` with endogenous treatment `trtvar` modeled by `x` and `z`

```
xteintreg y_l y_u x, entreat(trtvar = x z)
```

Same as above, but only the equation for [`y_l`, `y_u`] has a random effect

```
xteintreg y_l y_u x, entreat(trtvar = x z, nore)
```

Random-effects regression of [`y_l`, `y_u`] on `x` with endogenous sample-selection indicator `selvar` modeled by `x` and `z`

```
xteintreg y_l y_u x, select(selvar = x z)
```

Same as above, but adding endogenous covariate `y2` modeled by `x` and `z2`

```
xteintreg y_l y_u x, select(selvar = x z) endogenous(y2 = x z2)
```

Menu

Statistics > Longitudinal/panel data > Endogenous covariates > Models adding selection and treatment > Interval regression (RE)

Syntax

For syntax, methods, and all other information on `xteintreg`, see [ERM] **eintreg**.