estat ginvariant — Tests for invariance of parameters across groups

Syntax

estat ginvariant [, options]

options Description

showclass(classname) restrict output to parameters in the specified parameter class

class include joint tests for parameter classes

legend include legend describing parameter classes

classname Description

scoef structural coefficients

scons structural intercepts

mcoef measurement coefficients

mcons measurement intercepts

serrvar covariances of structural errors

merrvar covariances of measurement errors

smerrcov covariances between structural and measurement errors

meanex means of exogenous variables

covex covariances of exogenous variables

all all the above

none none of the above

Menu

Statistics > SEM (structural equation modeling) > Group statistics > Test invariance of parameters across groups

Description

estat ginvariant is for use after estimation with sem, group(); see [SEM] sem group options.

estat ginvariant performs score tests (Lagrange multiplier tests) and Wald tests of whether parameters constrained to be equal across groups should be relaxed and whether parameters allowed to vary across groups could be constrained.


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Options

`showpclass(classname)` displays tests for the classes specified. `showpclass(all)` is the default. `class` displays a table with joint tests for group invariance for each of the nine parameter classes. `legend` displays a legend describing the parameter classes. This option may only be used with the `class` option.

Remarks and examples

See [SEM] example 22.

Stored results

`estat ginvariant` stores the following in `r()`:

Scalars

- `r(N_groups)` number of groups

Matrices

- `r(nobs)` sample size for each group
- `r(test)` Wald and score tests
- `r(test_pclass)` parameter classes corresponding to `r(test)`
- `r(test_class)` joint Wald and score tests for each class

References


Also see

- [SEM] example 22 — Testing parameter equality across groups
- [SEM] estat mindices — Modification indices
- [SEM] estat scoretests — Score tests
- [SEM] methods and formulas for sem — Methods and formulas for sem
- [SEM] sem postestimation — Postestimation tools for sem