Title

estat ginvariant — Tests for invariance of parameters across groups

Syntax

estat <u>ginvariant</u> [, *options*]

options	Description
<u>showpclass</u>(*classname*)	restrict output to parameters in the specified parameter class
<u>class</u>	include joint tests for parameter classes
<u>legend</u>	include legend describing parameter classes

classname	Description
<u>scoef</u>	structural coefficients
<u>scons</u>	structural intercepts
<u>mcoef</u>	measurement coefficients
<u>mcons</u>	measurement intercepts
<u>serrvar</u>	covariances of structural errors
<u>merrvar</u>	covariances of measurement errors
<u>smerrcov</u>	covariances between structural and measurement errors
<u>meanex</u>	means of exogenous variables
<u>covex</u>	covariances of exogenous variables
<u>all</u>	all the above
<u>none</u>	none of the above

Menu

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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.

See Sörbom (1989) and Wooldridge (2010, 421–428).

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

Sörbom, D. 1989. Model modification. *Psychometrika* 54: 371–384.

Wooldridge, J. M. 2010. *Econometric Analysis of Cross Section and Panel Data*. 2nd ed. Cambridge, MA: MIT Press.

Also see