

Package Name: SVARPATTERNS

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Add-in Type: VAR and Global

Default Proc Name: svarpatterns

Default Menu Text: Short-run and Long-run Restrictions

Interface: Dialog and Command Line

Description: This add-in provides a procedure that allows the user to impose both short-run and long-run restrictions in structural VAR models.

Dialog: Upon running the add-in from the menus or command line, a dialog will appear:

Short-run and Long-run Restrictions for SVAR

Name of the VAR Object/Covariance Matrix	Label the resulting factor matrix
<input type="text"/>	<input type="text" value="factormat"/>
Name of the short-run pattern matrix	<input type="checkbox"/> Save the mapping matrix
<input type="text"/>	<input type="checkbox"/> Do not correct the covariance matrix of residuals for degrees-of-freedom
Name of the long-run pattern matrix	<input checked="" type="checkbox"/> Estimate the free parameters in restriction matrices
<input type="text"/>	Number of iterations
Name of the matrix of the sum of moving average coefficients (optional)	<input type="text" value="100"/>
<input type="text"/>	Tolerance level for convergence
Name of the initial factor matrix that contains starting values (optional)	<input type="text" value="1e-06"/>
<input type="text"/>	

Add-in written by
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OK Cancel

In the first box, you should enter the name of your VAR object or explicitly supply the residual covariance matrix. Short-run and Long-run pattern matrices are supplied in the second and third boxes, respectively. In the fourth box, you should enter the name of the matrix that contains the sum of moving average coefficients of the VAR model, unless you want to use a different matrix or you have directly supplied your own covariance matrix. Estimation requires starting values for the factor model, which you can provide through entering the name of the matrix in last box in the first column. By default, initialization is obtained through Cholesky decomposition. Since the results of factorization will be stored in a matrix object, you can provide a name in the first box in the second column (the default is *factormat*).

You can also save the mapping matrix that links the free parameters to the loading matrix. By default, EViews adjusts the residual covariance matrix for degrees-of-freedom. Simply check the related box, if you prefer to use the unadjusted matrix.

Command Line:

Syntax-1: svarpatterns

Syntax-2: VAR_name.svarpatterns(options)

Options:

Argument	Type	Explanation
varname	<i>string</i>	Name of the VAR/MATRIX object
shortmat	<i>string</i>	Name of the short-run pattern matrix
longmat	<i>string</i>	Name of the long-run pattern matrix
lagsums	<i>string</i>	User specified matrix of summed VARMA coefficients (<i>optional</i>)
factormat	<i>string</i>	Name of the resulting factor matrix
binit	<i>string</i>	User specified matrix of initialized factor matrix
iters	<i>numeric</i>	Number of iterations
crit	<i>numeric</i>	Tolerance level for convergence
mapmat		Save the mapping matrix
nodfadjust		Unadjust the residuals covariance matrix for <i>degrees of freedom</i> .
estimate		Do the estimation
prompt		Open the GUI

Examples:

- 1) myvar.svarpatterns(shortmat=sr,longmat=lr,estimate)
- 2) myvar.svarpatterns(shortmat=sr,longmat=lr,factormat=myfact,crit=1e-05,mapmat,estimate)

References:

Doan, Thomas. (2007). "ShortAndLong procedure", RATS User's Guide, p.358-360, Version 7, Estima.