

**Title**

dsimih graph — Plot dynamic simulation results after **svarih**

Syntax

dsimih graph [*stat*] [*using filename*] [, *options*]

<i>stat</i>	Description
sirf	structural impulse-response function
sfevd	structural forecast-error variance decomposition

You may specify only one *stat*.

<i>options</i>	Description
Graph Data	
regimes (<i>rgmlist</i>)	plot results for regimes <i>rgmlist</i> ; default: all regimes available in the dsimih results
impulse (<i>impvars</i>)	use shock(s) of equation(s) <i>impvars</i> as impulse variables
response (<i>respvars</i>)	use <i>respvars</i> as response variable(s)
nocl	suppress confidence intervals
setype (<i>string</i>)	plot confidence intervals based on standard errors of type <i>setype</i> ; default: asymptotic
level (#)	set confidence level
lstep (#)	use # for first step
ustep (#)	use # for maximum step
Graph Rendition	
byorder (<i>irorder</i>)	display subgraphs by <i>irorder</i>
plotopts (<i>cline options</i>)	affect rendition of lines plotting <i>stat</i>
ciopts (<i>area options</i>)	affect rendition of the confidence intervals for <i>stat</i>
byopts (<i>by option</i>)	all suboptions allowed by the <i>by option</i>
<i>twoway_options</i>	any options other than by() documented in [G-3] <i>twoway_options</i>
Data Set	
number (#)	access results number # ; only allowed if the using modifier refers to a .ster file
keep	keep the Stata data set underlying the graph created
clear	specifies that it is okay to replace the data in memory, even though the current data have not been saved to disk

Graph Data

Graph Rendition

Data Set

Description

dsimih graph plots dynamic simulation results created by **dsimih create**. Options **keep** and **clear** allow you to keep the results in Stata data set memory. If you omit these options, results are only displayed in the results window.

Abbreviations, definitions, notation, syntax elements

This help entry uses terminology defined in **svarih** and **dsimih**.

Options

Graph Data

regimes(*rgmlist*) is a numlist and specifies the volatility regimes for which results are displayed. By default, graphs for all regimes that are present in the **dsimih** results are created. *rgmlist* must be a subset of the list of regimes that occur in the estimation sample.

impulse(*impvars*) specifies the impulse variables for which the statistics are to be reported. If **impulse**() is not specified, each model variable, in turn, is used. *impvars* may be specified in any way allowed by a standard Stata varlist. *varlist* here does not refer to the variables in memory but to the variables recorded in *e(depvar)*.

response(*respvars*) specifies the response variables for which the statistics are to be reported. If **response**() is not specified, each endogenous variable, in turn, is used. *respvars* may be specified in any way allowed by a standard Stata varlist. *varlist* here does not refer to the variables in memory but to the variables recorded in *e(depvar)*.

noci suppresses reporting of the confidence intervals for *stat*.

setype(*selist*) specifies the standard errors type based on which confidence bands are drawn. *setype* may contain one of the tokens **asymptotic**, **bs** and **bsp**. They stand for asymptotic standard errors, standard errors from a residual bootstrap, and standard errors from a parametric bootstrap based on draws from the normal distribution, respectively. The default are asymptotic standard errors.

level(#) specifies the confidence level, as a percentage, for confidence intervals, when they are reported. The default is **level(95)** or as set by **set level**.

lstep(#) specifies the first step, or period, to be included in the graphs. **lstep(0)** is the default.

ustep(#), # ≥ 0, specifies the maximum step, or period, to be included in the graphs.

Graph Rendition

byorder(*irorder*) specifies the order of the subgraphs by *impvar* and *respvar* within the combined graph. **byorder**() may contain tokens **impulse** and/or **response**. Combinations allowed are **byorder(i)**, **byorder(r)**, **byorder(i r)**, and **byorder(r i)**, where **byorder(i)** is equivalent to **byorder(i r)**, and **byorder(r)** is equivalent to **byorder(r i)**.

plotopts(*cline_options*) affect the rendition of the plotted statistics (the *stat*). *cline_options* are as described in [\[G-3\] cline_options](#).

ciopts(*area_options*) affect the rendition of the confidence intervals for *stat*. *area_options* are as described in [\[G-3\] area_options](#).

byopts(*by_option*) may contain all suboptions of [\[G-3\] by_option](#). **byopts**() affects how the subgraphs are combined, labeled, etc.

twoway_options are any of the options documented in [\[G-3\] twoway_options](#), excluding **by()**. These include options for titling the graph (see [\[G-3\] title_options](#)) and for saving the graph to disk (see [\[G-3\] saving_option](#)).

Data Set

keep Option **keep** keeps the data set underlying the graph display in memory and does not restore the memory state that was in place before **dsimih graph** was invoked. **dsimih graph** uses dsimih table which uses dsimih use to load a data set with dynamic simulation results into memory and then draws the graph. The data set that option **keep** keeps in memory corresponds exactly to the output graph displayed by **dsimih graph**.

This option is useful if you want to format the graph in a way that **dsimih graph** does not support. Option **keep** gives you the data set underlying the graphical output of **dsimih graph**. You can then apply your own graphics commands to the data.

clear specifies that it is okay to replace the data in memory, even though the current data have not been saved to disk. This option is for usage in conjunction with option **keep**.

Remarks

dsimih graph by default accesses DS results in **e()** but is also capable of accessing DS results stored in files using its **using** modifier. For details on how the **using** modifier works in all **dsimih** subcommands, see [dsimih etodta](#).

Examples

Executing the following statements will change current **e()**-results.

Generate example estimates (see [svarih examples](#)):

```
. webuse lutkepohl2
. svarih examples bfa unconstr , ereplace
. dsimih describe , modelstats cmdline

. dsimih create , step(8)
```

By default, **dsimih graph** will make a combined table of all combinations of impulse and response variables, for all regimes:

```
. dsimih graph sirf , name(dsimih gr1, replace)
```

A tailored grayscale graph, making extensive use of minimum option abbreviations:

```
. dsimih gr si, reg(1) i(*inv) sch(s2mono) pl(lw(thick)) ciop(lp(dash)
  lw(thick) fc(none)) byop(c(1) yr) yli(0)
```

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Acknowledgements

dsimih graph was inspired in many ways by official Stata's [irf graph](#).

Also see

Help: [\[TS\] irf](#), [dsimih](#), [dsimih create](#), [dsimih table](#), [dsimih describe](#), [dsimih use](#), [dsimih drop](#), [dsimih etodta](#)