

bayesirf — Bayesian IRFs, dynamic-multiplier functions, and FEVDs

[Description](#)

[Quick start](#)

[Syntax](#)

[Remarks and examples](#)

[Also see](#)

Description

`bayesirf` creates and manipulates Bayesian impulse–response function (IRF) files that contain estimates of the IRFs, dynamic-multiplier functions, and forecast-error variance decompositions (FEVDs) created after estimation by `bayes: var`; see [\[BAYES\] bayes: var](#).

`bayesirf` creates and manipulates Bayesian IRF files that contain estimates of the IRFs created after estimation by `bayes: dsge` or `bayes: dsge1`; see [\[BAYES\] bayes: dsge](#) or [\[BAYES\] bayes: dsge1](#).

IRFs and FEVDs are described in [\[TS\] irf](#).

Quick start

Fit a Bayesian vector autoregression (VAR) model

```
bayes, saving(bvarmcmc): var y1 y2 y3
```

Create IRF `myirf` and IRF file `bayesirfs.irf`

```
bayesirf create myirf, set(bayesirfs)
```

Graph orthogonalized IRF for dependent variables `y1` and `y2` given a shock to `y1`

```
bayesirf graph oirf, impulse(y1) response(y1 y2)
```

Same as above, but present results in a table

```
bayesirf table oirf, impulse(y1) response(y1 y2)
```

See other `bayesirf` subcommands for additional Quick starts.

Syntax

```
bayesirf subcommand ... [ , ... ]
```

<i>subcommand</i>	Description
create	create IRF file containing IRFs, dynamic-multiplier functions, and FEVDs; [BAYES] bayesirf create
set	set the active IRF file; [TS] irf set
graph	graph results from active file; [BAYES] bayesirf graph
cgraph	combine graphs of IRFs, dynamic-multiplier functions, and FEVDs; [BAYES] bayesirf cgraph
ograph	graph overlaid IRFs, dynamic-multiplier functions, and FEVDs; [BAYES] bayesirf ograph
table	create tables of IRFs, dynamic-multiplier functions, and FEVDs from active file; [BAYES] bayesirf table
ctable	combine tables of IRFs, dynamic-multiplier functions, and FEVDs; [BAYES] bayesirf ctable
describe	describe contents of active file; [TS] irf describe
add	add results from an IRF file to the active IRF file; [TS] irf add
drop	drop IRF results from active file; [TS] irf drop
rename	rename IRF results within a file; [TS] irf rename

bayesirf can be used after **bayes: var**, **bayes: dsge** or **bayes: dsgenl**; see [BAYES] **bayes: var**, [BAYES] **bayes: dsge**, or [BAYES] **bayes: dsgenl**.

bayesirf set, **describe**, **add**, **drop**, and **rename** have the same syntax as their respective **irf** commands.

Remarks and examples

[stata.com](http://www.stata.com)

For examples and details about IRFs and other functions, see *Remarks and examples* in [BAYES] **bayesirf create**. Also see [example 8](#) in [BAYES] **bayes: var**.

Also see

[TS] **irf** — Create and analyze IRFs, dynamic-multiplier functions, and FEVDs

[BAYES] **bayes: dsge** — Bayesian linear dynamic stochastic general equilibrium models

[BAYES] **bayes: dsgenl** — Bayesian nonlinear dynamic stochastic general equilibrium models

[BAYES] **bayes: var** — Bayesian vector autoregressive models

Stata, Stata Press, and Mata are registered trademarks of StataCorp LLC. Stata and Stata Press are registered trademarks with the World Intellectual Property Organization of the United Nations. StataNow and NetCourseNow are trademarks of StataCorp LLC. Other brand and product names are registered trademarks or trademarks of their respective companies. Copyright © 1985–2023 StataCorp LLC, College Station, TX, USA. All rights reserved.



For suggested citations, see the FAQ on [citing Stata documentation](#).