

## Description

*axis\_options* allow you to change the title, labels, ticks, and scale of a numeric axis from the defaults set by the scheme.

## Options

*axis\_options* are grouped into four classes.

*axis\_title\_options* specify the titles to appear next to the axes. They also allow you to format the title fonts. See [G-3] *axis\_title\_options*.

*axis\_label\_options* specify how the axes should be labeled and ticked. These options allow you to control the placement of major and minor ticks and labels. *axis\_label\_options* also allow you to add or to suppress grid lines on your graphs. See [G-3] *axis\_label\_options*.

*axis\_scale\_options* specify how the axes should be scaled—either logarithmic scaled or reverse scaled to run from the maximum to the minimum. These options also allow you to change the range of the axes and the look of the lines that are the axes, including placement. See [G-3] *axis\_scale\_options*.

*axis\_choice\_options* control the specific axis on which a plot appears when there are multiple *x* or *y* axes. See [G-3] *axis\_choice\_options*.

## Remarks and examples

Numeric axes are allowed with `graph twoway` (see [G-2] **graph twoway**) and `graph matrix` (see [G-2] **graph matrix**) and are allowed for one of the axes of `graph bar` (see [G-2] **graph bar**), `graph dot` (see [G-2] **graph dot**), and `graph box` (see [G-2] **graph box**). They are also allowed on the contour key of a legend on a **contour plot**. The default appearance of the axes is determined by the **scheme** but can be modified using *axis\_options*.

### □ Technical note

`twoway` draws two-way graphs with one set of axes (or one set per by-group), and all the plots that appear on the two-way graph share that set by default. *axis\_options* are options to `twoway` rather than to the individual plot. Therefore, the “correct” placement of *axis\_options* is as options to `twoway` rather than to the individual plots. For example,

```
. twoway (scatter yvar xvar)
      (scatter y2var x2var)
      , ylabel(0(5)30) ymtick(0(1)30) ytitle("values of y")
      xlabel(0(10)100) xmtick(0(5)100) xtitle("values of x")
```

However, you can include *axis\_options* as options to a specific plot without changing the resulting graph by typing, for example,

```
. twoway (scatter yvar xvar
           , ylabel(0(5)30) ymtick(0(1)30) ytitle("values of y")
           xlabel(0(10)100) xmtick(0(5)100) xtitle("values of x"))
(scatter y2var x2var)
```

If an *axis\_option* is repeated, only the last, or *rightmost*, instance is used (see [G-4] **Concept: repeated options**). For information on specifying options when there are multiple *y* or *x* axes, see [G-3] *axis\_choice\_options*.



## Also see

- [G-3] *axis\_choice\_options* — Options for specifying the axes on which a plot appears
- [G-3] *axis\_label\_options* — Options for specifying axis labels
- [G-3] *axis\_scale\_options* — Options for specifying axis scale, range, and look
- [G-3] *axis\_title\_options* — Options for specifying axis titles
- [G-3] *region\_options* — Options for shading and outlining regions and controlling graph size

