

graph twoway dropline — Twoway dropped-line plots[Description](#)
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Description

`twoway dropline` displays numeric (y,x) data as dropped lines capped with a marker. `twoway dropline` is useful for drawing plots in which the numbers vary around zero.

Quick start

Graph of (y, x) pairs displayed as a marker with lines extending to the x axis

```
twoway dropline y x
```

Specify lines that extend to 20 instead of 0

```
twoway dropline y x, base(20)
```

As above, but add a horizontal line at $y = 20$

```
twoway dropline y x, base(20) yline(20)
```

Menu

Graphics > Twoway graph (scatter, line, etc.)

Syntax

```
twoway dropline yvar xvar [if] [in] [, options]
```

<i>options</i>	Description
vertical	vertical dropped-line plot; the default
horizontal	horizontal dropped-line plot
base(#)	value to drop to; default is 0
<i>marker_options</i>	change look of markers (color, size, etc.)
<i>marker_label_options</i>	add marker labels; change look or position
<i>line_options</i>	change look of dropped lines
<i>axis_choice_options</i>	associate plot with alternative axis
<i>twoway_options</i>	titles, legends, axes, added lines and text, by, regions, name, aspect ratio, etc.

All explicit options are *rightmost*, except **vertical** and **horizontal**, which are *unique*; see [G-4] **Concept: repeated options**.

Options

vertical and **horizontal** specify either a vertical or a horizontal dropped-line plot. **vertical** is the default. If **horizontal** is specified, the values recorded in *yvar* are treated as *x* values, and the values recorded in *xvar* are treated as *y* values. That is, to make horizontal plots, do not switch the order of the two variables specified.

In the **vertical** case, dropped lines are drawn at the specified *xvar* values and extend up or down from 0 according to the corresponding *yvar* values. If 0 is not in the range of the *y* axis, lines extend up or down to the *x* axis.

In the **horizontal** case, dropped lines are drawn at the specified *xvar* values and extend left or right from 0 according to the corresponding *yvar* values. If 0 is not in the range of the *x* axis, lines extend left or right to the *y* axis.

base(#) specifies the value from which the lines should extend. The default is **base(0)**, and in the above description of options **vertical** and **horizontal**, this default was assumed.

marker_options specify the look of markers plotted at the data points. This look includes the marker symbol and its size, color, and outline; see [G-3] *marker_options*.

marker_label_options specify if and how the markers are to be labeled; see [G-3] *marker_label_options*.

line_options specify the look of the dropped lines, including pattern, width, and color; see [G-3] *line_options*.

axis_choice_options associate the plot with a particular *y* or *x* axis on the graph; see [G-3] *axis_choice_options*.

twoway_options are a set of common options supported by all **twoway** graphs. These options allow you to title graphs, name graphs, control axes and legends, add lines and text, set aspect ratios, create graphs over **by()** groups, and change some advanced settings. See [G-3] *twoway_options*.

Remarks and examples

Remarks are presented under the following headings:

Typical use
Advanced use
Cautions

Typical use

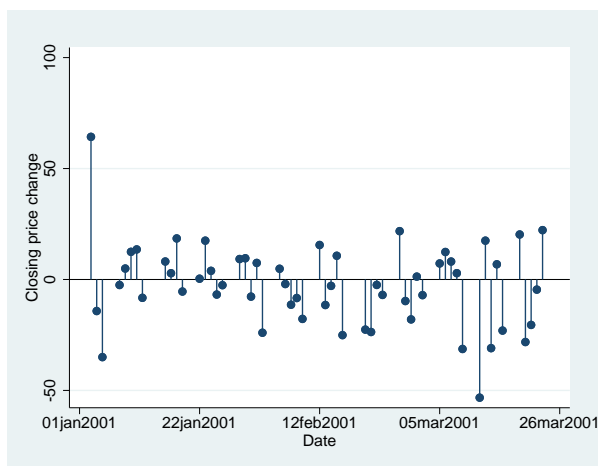
We have daily data recording the values for the S&P 500 in 2001:

```
. use https://www.stata-press.com/data/r17/sp500
(S&P 500)
. list date close change in 1/5
```

	date	close	change
1.	02jan2001	1283.27	.
2.	03jan2001	1347.56	64.29004
3.	04jan2001	1333.34	-14.22009
4.	05jan2001	1298.35	-34.98999
5.	08jan2001	1295.86	-2.48999

In [G-2] [graph twoway bar](#), we graphed the first 57 observations of these data by using bars. Here is the same graph presented as dropped lines:

```
. twoway dropline change date in 1/57, yline(0, lstyle(foreground))
```



In the above, we specified `yline(0)` to add a line across the graph at 0, and then we specified `yline(, lstyle(foreground))` so that the line would have the same color as the foreground. We could have instead specified `yline(, lcolor())`. For an explanation of why we chose `lstyle()` over `foreground()`, see [Advanced use: Overlaying](#) in [G-2] [graph twoway bar](#).

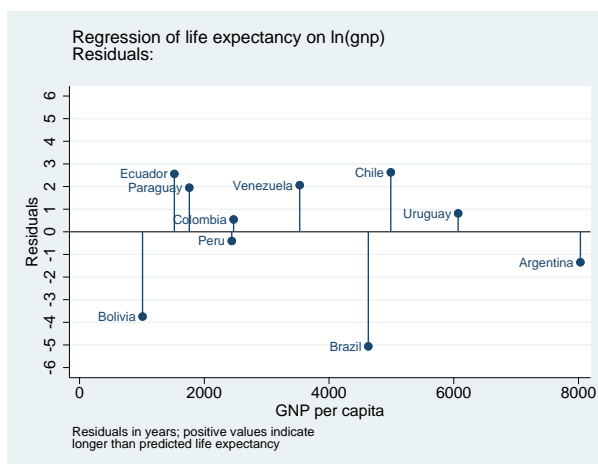
Advanced use

Dropped-line plots work especially well when the points are labeled. For instance,

```

. use https://www.stata-press.com/data/r17/lifeexp, clear
(Life expectancy, 1998)
. keep if region==3
(58 observations deleted)
. generate lngnp = ln(gnppc)
. quietly regress le lngnp
. predict r, resid
. twoway dropline r gnp,
  yline(0, lstyle(foreground)) mlabel(country) mlabpos(9)
  ylab(-6(1)6)
  subtitle("Regression of life expectancy on ln(gnp)"
    "Residuals:" " ", pos(11))
  note("Residuals in years; positive values indicate"
    "longer than predicted life expectancy")

```



Cautions

See *Cautions* in [G-2] **graph twoway bar**, which applies equally to **twoway dropline**.

Also see

[G-2] **graph twoway scatter** — Twoway scatterplots

[G-2] **graph twoway spike** — Twoway spike plots