## Syntax

```
twoway rbar y1var y2var xvar [if] [in] [, options]
```

### options

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<th>Syntax</th>
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<tr>
<td>horizontal</td>
<td><code>horizontal</code></td>
</tr>
<tr>
<td>barwidth(#)</td>
<td><code>barwidth(#)</code></td>
</tr>
<tr>
<td>mwidth</td>
<td><code>mwidth</code></td>
</tr>
<tr>
<td>msize(markersizestyle)</td>
<td><code>msize(markersizestyle)</code></td>
</tr>
<tr>
<td>barlook_options</td>
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<td>axis_choice_options</td>
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<td><code>twoway_options</code></td>
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Options `barwidth()`, `mwidth`, and `msize()` are `rightmost`, and `vertical` and `horizontal` are `unique`; see [G-4] `concept: repeated options`.

## Menu

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

## Description

A range plot has two \( y \) variables, such as high and low daily stock prices or upper and lower 95% confidence limits.

`twoway rbar` plots a range, using bars to connect the high and low values.

Also see [G-2] `graph bar` for more traditional bar charts.

## Options

`vertical` and `horizontal` specify whether the high and low \( y \) values are to be presented vertically (the default) or horizontally.
In the default vertical case, \emph{y1var} and \emph{y2var} record the minimum and maximum (or maximum and minimum) \emph{y} values to be graphed against each \emph{xvar} value.

If \emph{horizontal} is specified, the values recorded in \emph{y1var} and \emph{y2var} are plotted in the \emph{x} direction and \emph{xvar} is treated as the \emph{y} value.

\texttt{barwidth(\#)} specifies the width of the bar in \emph{xvar} units. The default is \texttt{barwidth(1)}. When a bar is plotted, it is centered at \emph{x}, so half the width extends below \emph{x} and half above.

\texttt{mwidth} and \texttt{msize(markersizestyle)} change how the width of the bars is specified. Usually, the width of the bars is determined by the \texttt{barwidth()} option documented below. If \texttt{mwidth} is specified, \texttt{barwidth()} becomes irrelevant and the bar width switches to being determined by \texttt{msize()}. This all has to do with the units in which the width of the bar is specified.

By default, bar widths are specified in the units of \emph{xvar}, and if option \texttt{barwidth()} is not specified, the default width is 1 \emph{xvar} unit.

\texttt{mwidth} specifies that you wish bar widths to be measured in relative size units; see [G-4] \texttt{relativesize}. When you specify \texttt{mwidth}, the default changes from being 1 \emph{xvar} unit to the default width of a marker symbol.

If you also specify \texttt{msize()}, the width of the bar is modified to be the relative size specified.

\texttt{barlook_options} set the look of the bars. The most important of these options is \texttt{color(colorstyle)}, which specifies the color of the bars; see [G-4] \texttt{colorstyle} for a list of color choices. See [G-3] \texttt{barlook_options} for information on the other \texttt{barlook_options}.

\texttt{axis_choice_options} associate the plot with a particular \emph{y} or \emph{x} axis on the graph; see [G-3] \texttt{axis_choice_options}.

\texttt{twoway_options} are a set of common options supported by all \texttt{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 \texttt{by()} groups, and change some advanced settings. See [G-3] \texttt{twoway_options}.

### Remarks and examples

Remarks are presented under the following headings:

- Typical use
- Advanced use

### Typical use

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

```
. use http://www.stata-press.com/data/r13/sp500
(S&P 500)
. list date high low close in 1/5
```

<table>
<thead>
<tr>
<th>date</th>
<th>high</th>
<th>low</th>
<th>close</th>
</tr>
</thead>
<tbody>
<tr>
<td>02jan2001</td>
<td>1320.28</td>
<td>1276.05</td>
<td>1283.27</td>
</tr>
<tr>
<td>03jan2001</td>
<td>1347.76</td>
<td>1274.62</td>
<td>1347.56</td>
</tr>
<tr>
<td>04jan2001</td>
<td>1350.24</td>
<td>1329.14</td>
<td>1333.34</td>
</tr>
<tr>
<td>05jan2001</td>
<td>1334.77</td>
<td>1294.95</td>
<td>1298.35</td>
</tr>
<tr>
<td>08jan2001</td>
<td>1298.35</td>
<td>1276.29</td>
<td>1295.86</td>
</tr>
</tbody>
</table>
```
We will use the first 57 observations from these data:

```
   . twoway rbar high low date in 1/57, barwidth(.6)
```

We specified `barwidth(.6)` to reduce the width of the bars. By default, bars are 1 unit wide (meaning 1 day in our data). That default resulted in the bars touching. `barwidth(.6)` reduced the width of the bars to .6 days.

**Advanced use**

The useful thing about `twoway rbar` is that it can be combined with other `twoway` plottypes (see [G-2] `graph twoway`):

```
   . twoway rbar high low date, barwidth(.6) color(gs7) ||
     line close date || in 1/57
```

There are two things to note in the example above: our specification of `color(gs7)` and that we specified that the range bars be drawn first, followed by the line. We specified `color(gs7)` to tone down the bars: By default, the bars were too bright, making the line plot of close versus date all but invisible. Concerning the ordering, we typed

```
. twoway rbar high low date, barwidth(.6) color(gs7) ||
    line close date || in 1/57
```

so that the bars would be drawn first and then the line drawn over them. Had we specified

```
. twoway line close date ||
    rbar high low date, barwidth(.6) color(gs7) || in 1/57
```

the bars would have been placed on top of the line and thus would have occulted the line.

Reference


Also see

[G-2] `graph twoway bar` — Twoway bar plots

[G-2] `graph twoway rarea` — Range plot with area shading

[G-2] `graph twoway rcap` — Range plot with capped spikes

[G-2] `graph twoway rcapsym` — Range plot with spikes capped with marker symbols

[G-2] `graph twoway rconnected` — Range plot with connected lines

[G-2] `graph twoway rline` — Range plot with lines

[G-2] `graph twoway rscatter` — Range plot with markers

[G-2] `graph twoway rspike` — Range plot with spikes