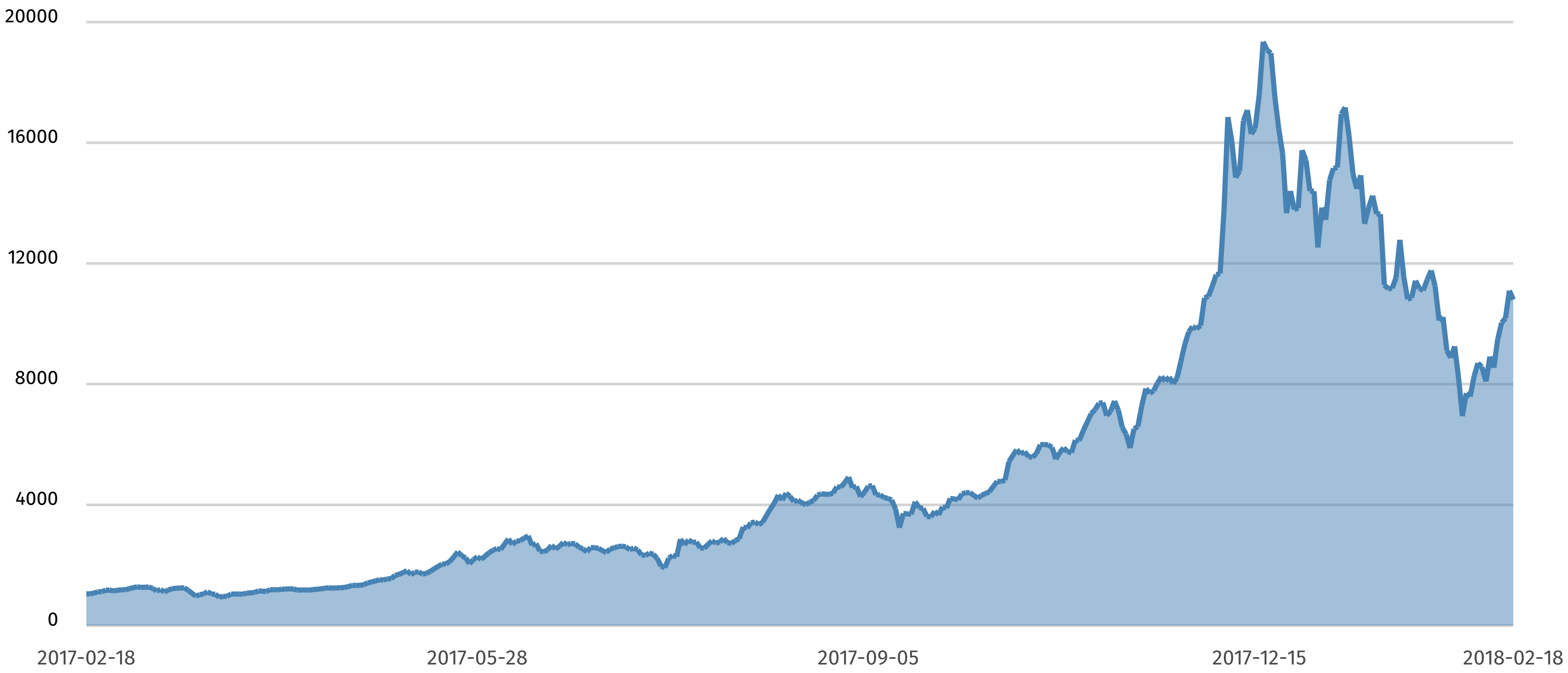
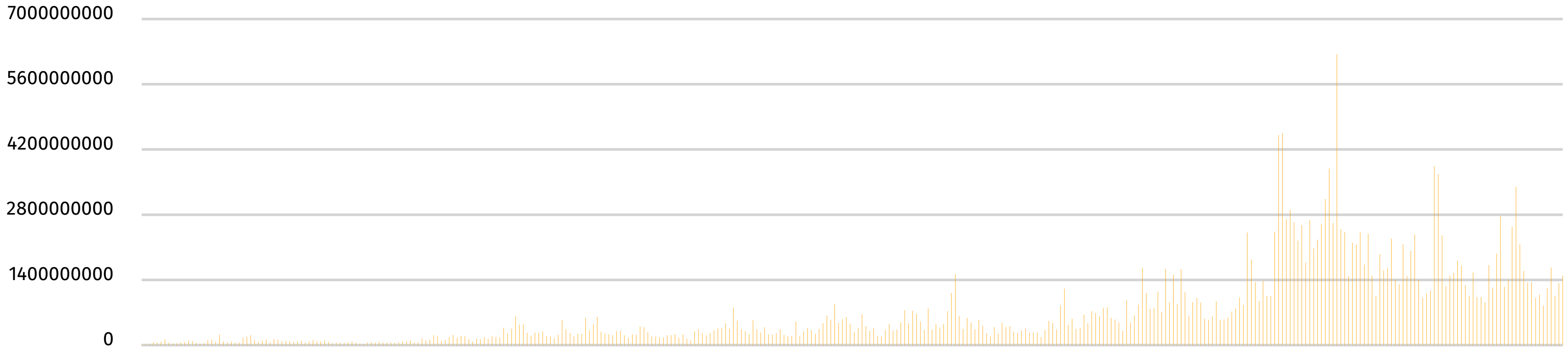
dchart charts for deck

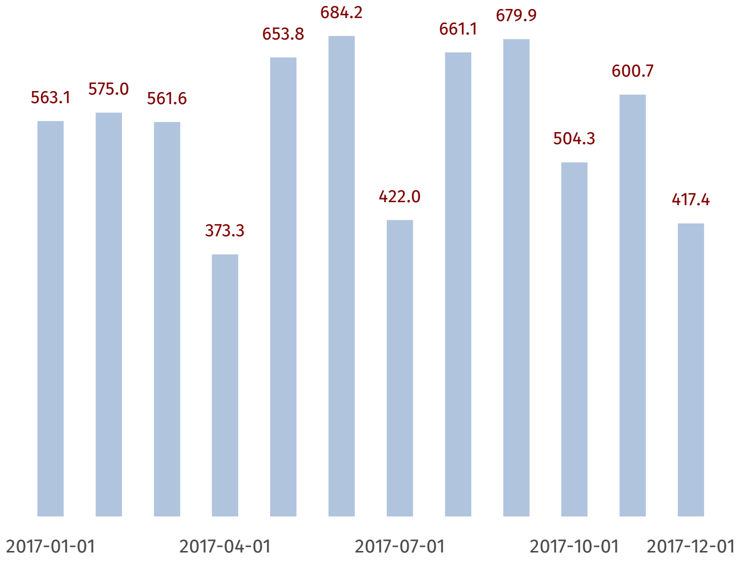
BITCOIN to USD



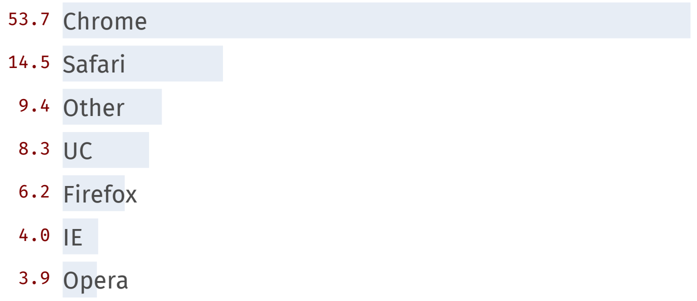
Volume



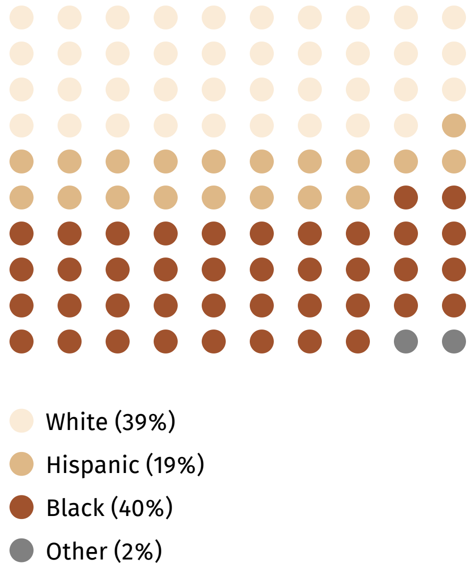
AAPL Volume



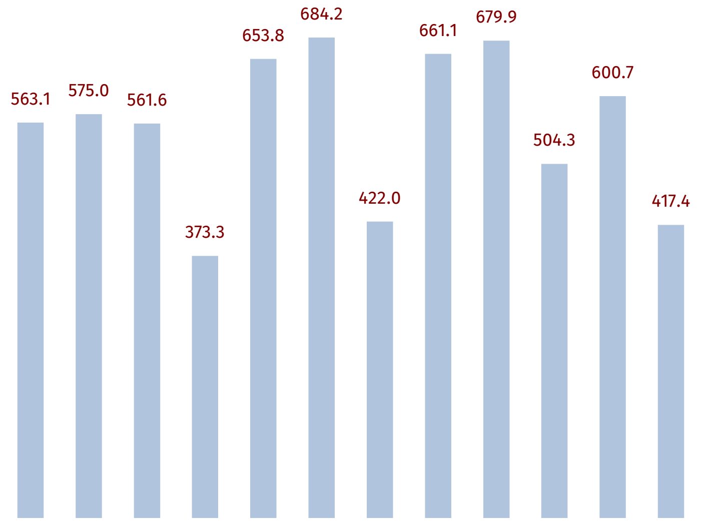
Browser Market Share Dec 2016-Dec 2017



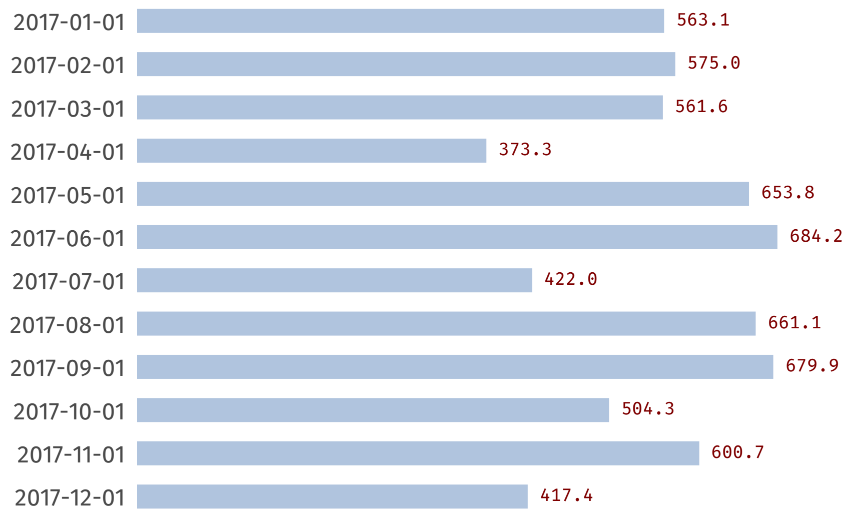
US Incarceration Rate



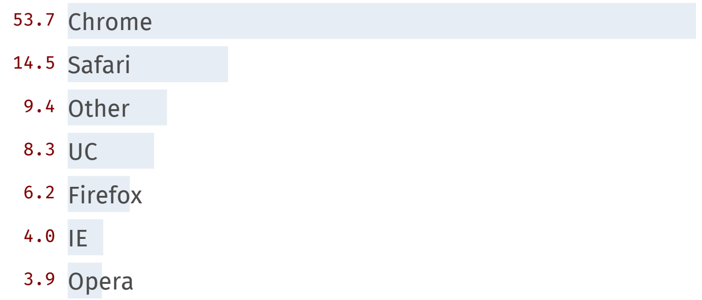
Anthony Starks


AAPL Volume

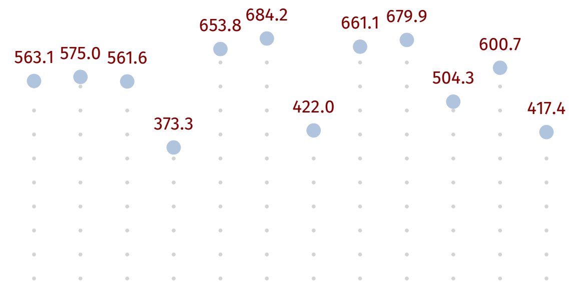
bar


AAPL Volume

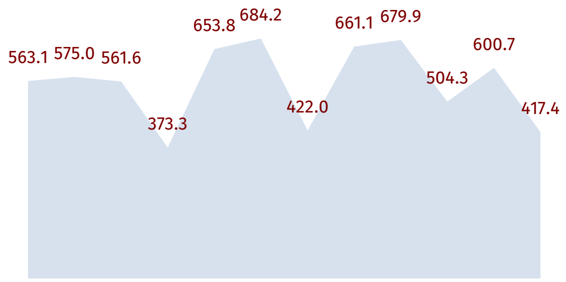
hbar


Browser Market Share Dec 2016-Dec 2017

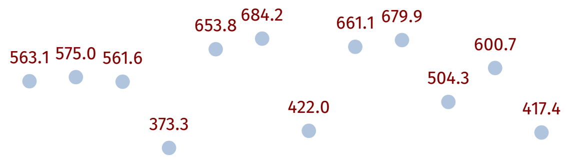
wbar



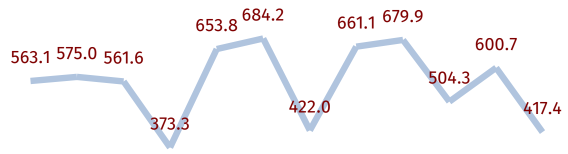
dot



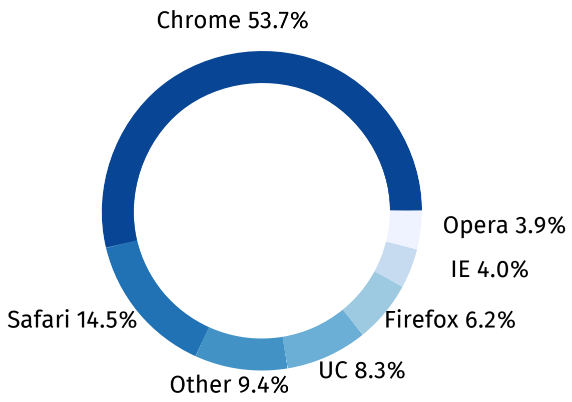
vol



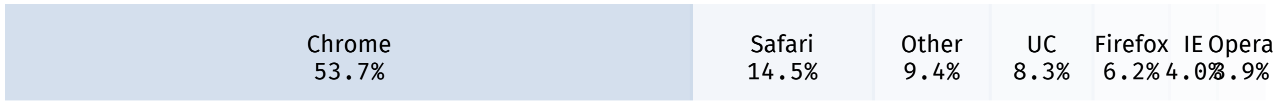
scatter



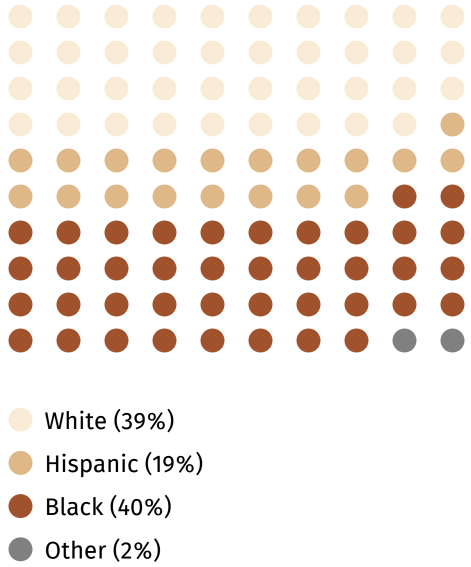
line


Browser Market Share Dec 2016-Dec 2017

donut


Browser Market Share Dec 2016-Dec 2017

pmap


US Incarceration Rate

pgrid

Chart Types

-bar	bar chart (default true)
-wbar	word bar chart (default false)
-hbar	horizontal bar chart (default false)
-scatter	scatter chart (default false)
-dot	dot plot (default false)
-line	line chart (default false)
-vol	volume plot (default false)
-pgrid	proportional grid (default false)
-pmap	proportional map (default false)
-donut	donut chart (default false)

Chart Elements

-grid	show gridlines on the y axis (default false)
-val	show values (default true)
-valpos	value position (t=top, b=bottom, m=middle) (default "t")
-yaxis	show a y axis (default true)
-yrange	specify the y axis labels (min,max,step)
-fulldeck	generate full deck markup (default true)
-title	show the title (default true)
-chartitle	specify the title (overiding title in the data)
-xlabel	x axis label interval (default 1, 0 to supress all labels)
-xlast	show the last x label
-hline	horizontal line at value with label

Position and Scaling

-top	top of the plot (default 80)
-bottom	bottom of the plot (default 30)
-left	left margin (default 20)
-right	right margin (default 80)
-min	set the minimum value
-max	set the maximum value
-dmin	data minimum (default false, min=0)

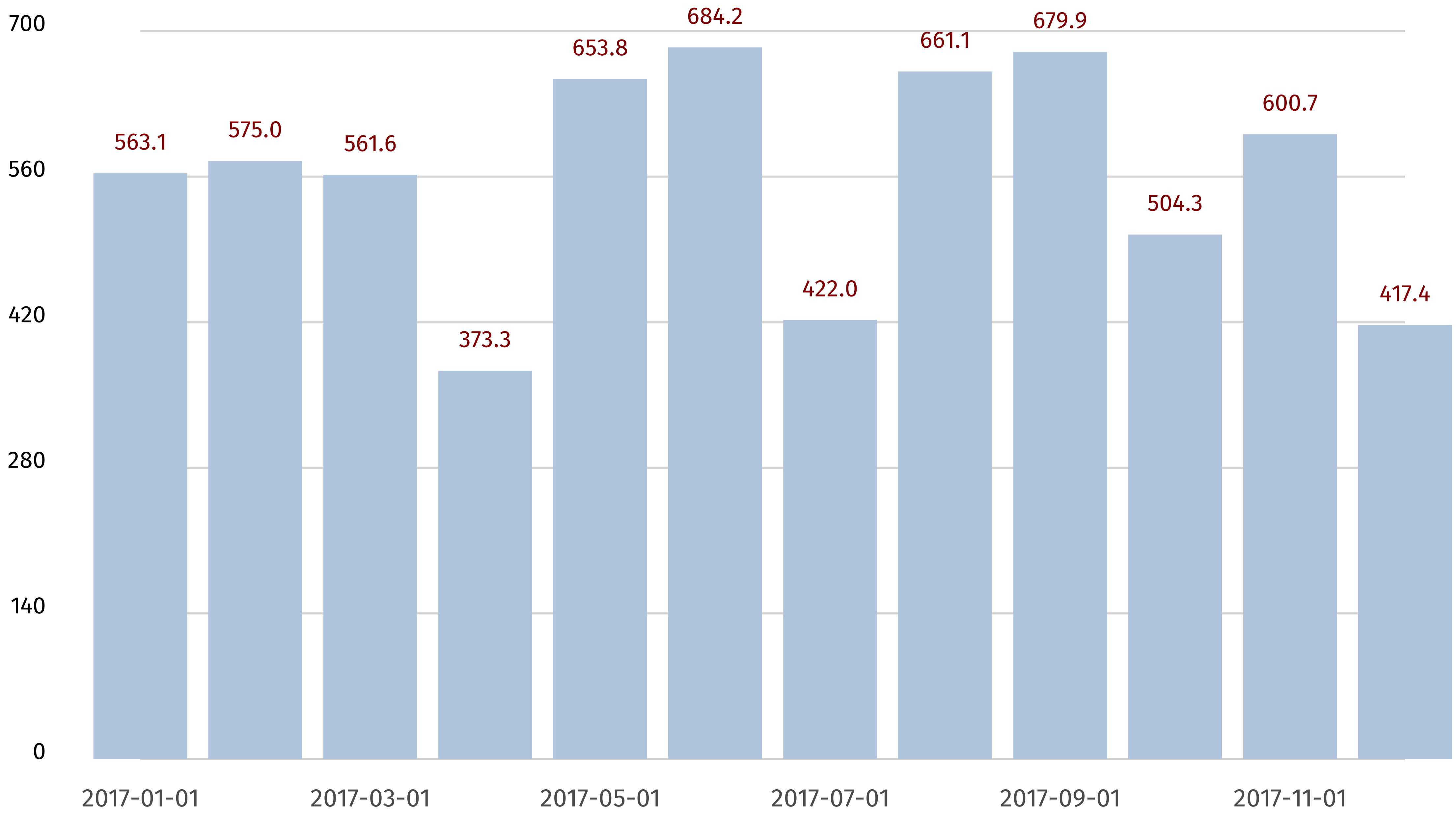
CSV

-csv	read CSV files (default false)
-csvcol	specify the columns to use for label,value

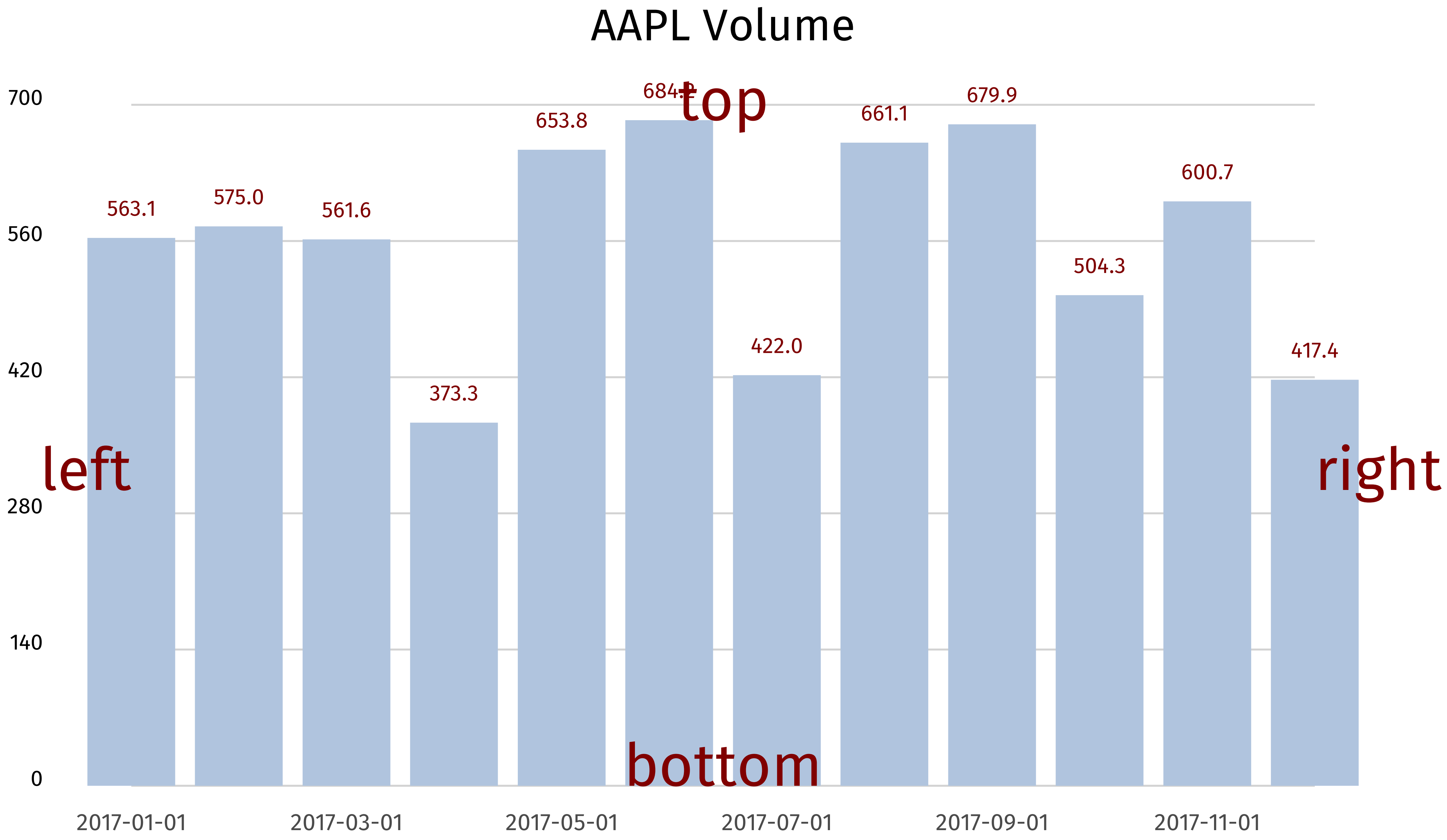
Measures and Attributes

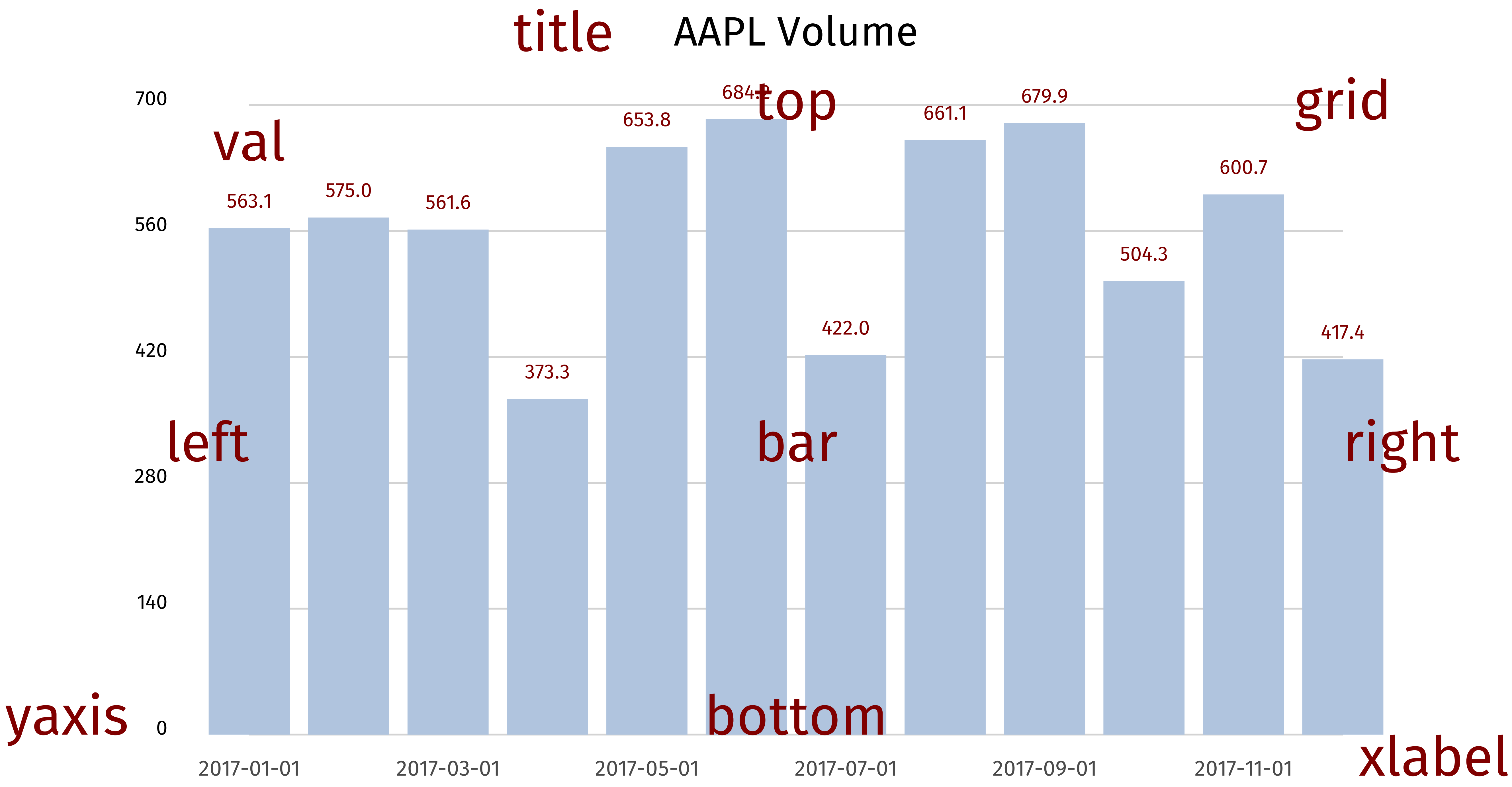
-barwidth	barwidth (default computed from data size)
-ls	linespacing (default 2.4)
-textsize	text size (default 1.5)
-color	data color (default "lightsteelblue")
-vcolor	value color (default "rgb(127,0,0)")
-datafmt	data format for values (default "%.1f")
-psize	diameter of the donut (default 30)
-pwidth	width of the donut or proportional map (default 3)

AAPL Volume

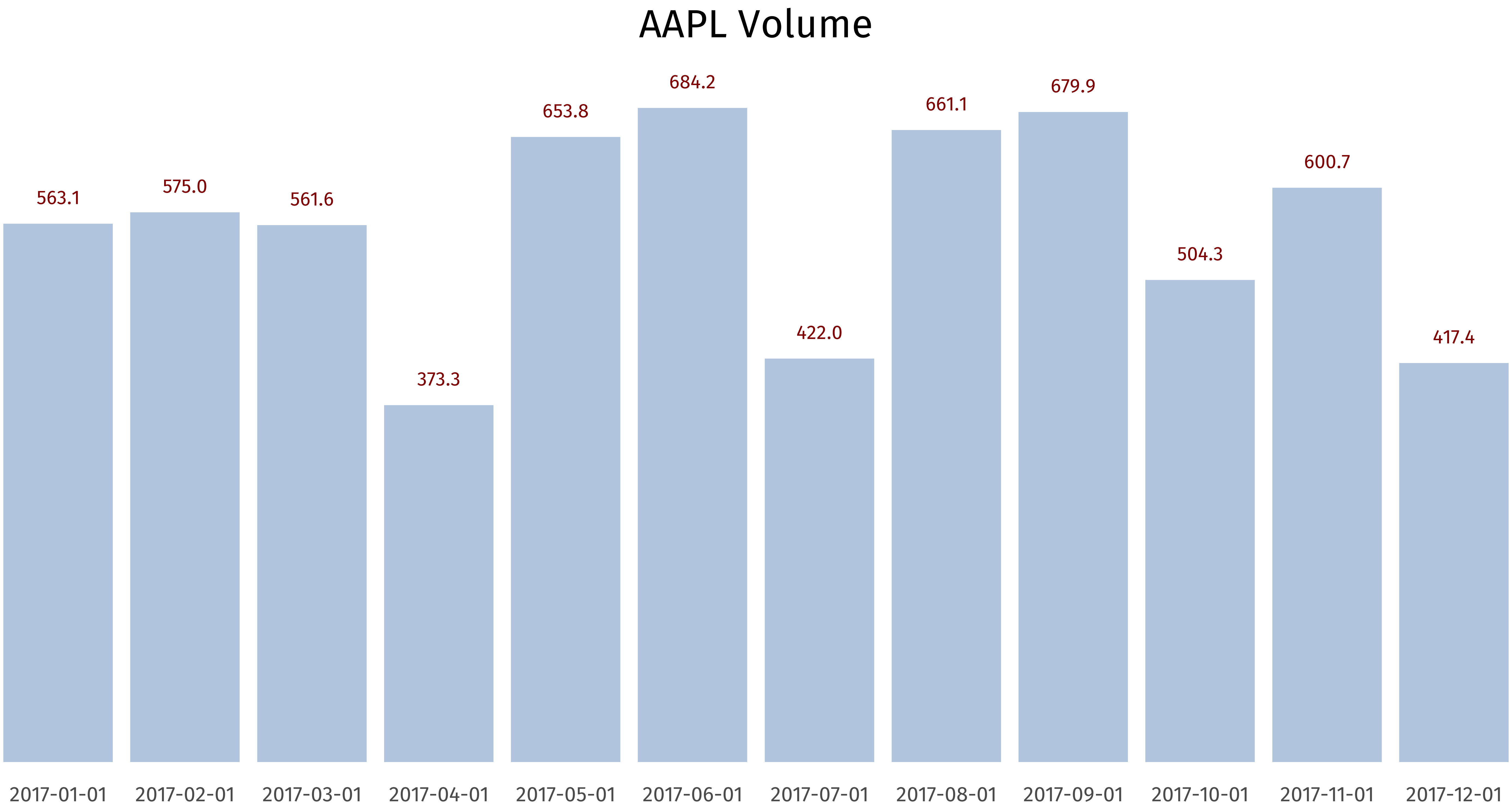


700
560
420
280
140
0
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-03-01
2017-05-01
2017-07-01
2017-09-01
2017-11-01

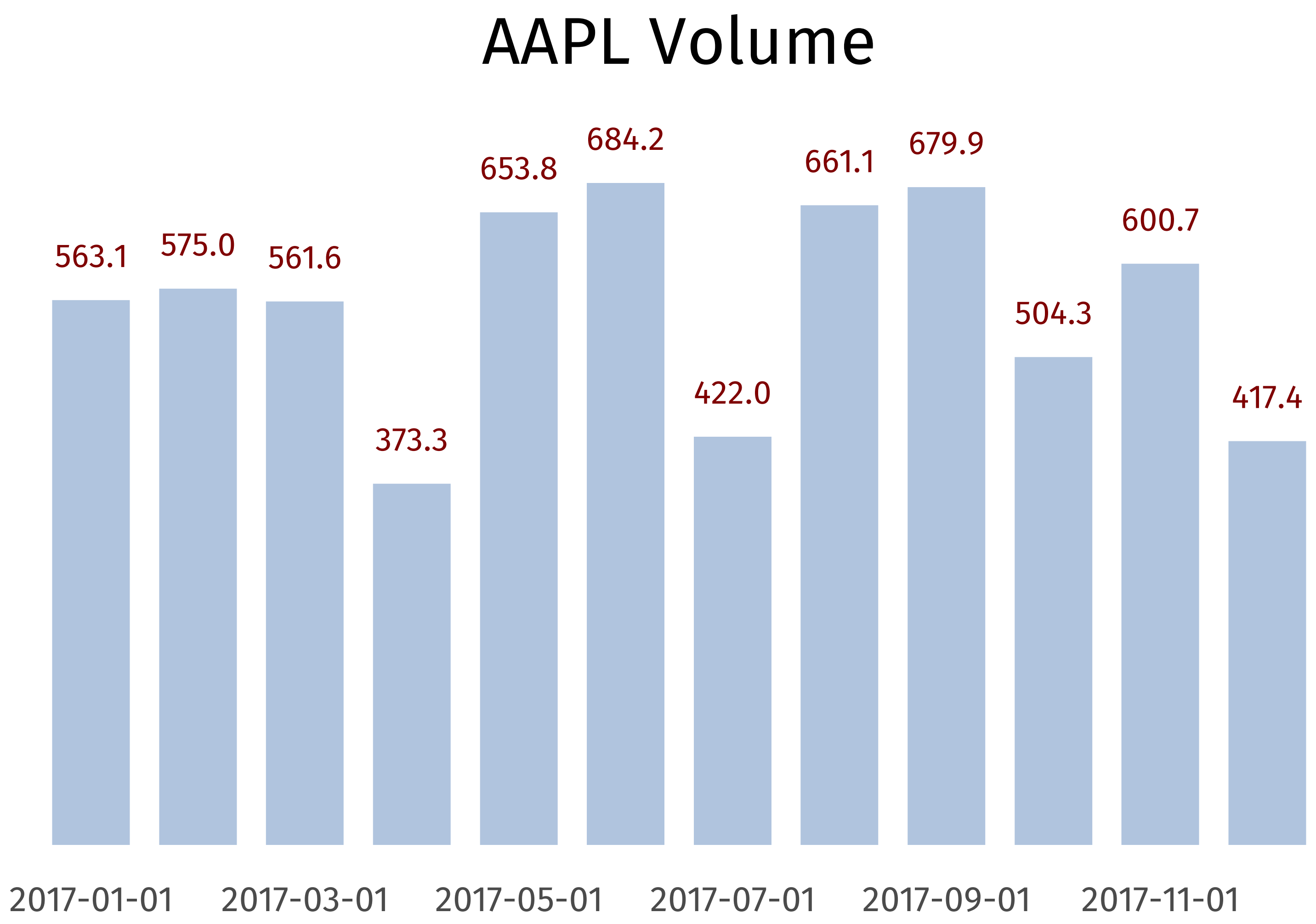

AAPL Volume
700
560
420
280
140
0
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-03-01
2017-05-01
2017-07-01
2017-09-01
2017-11-01
top
left
right
bottom



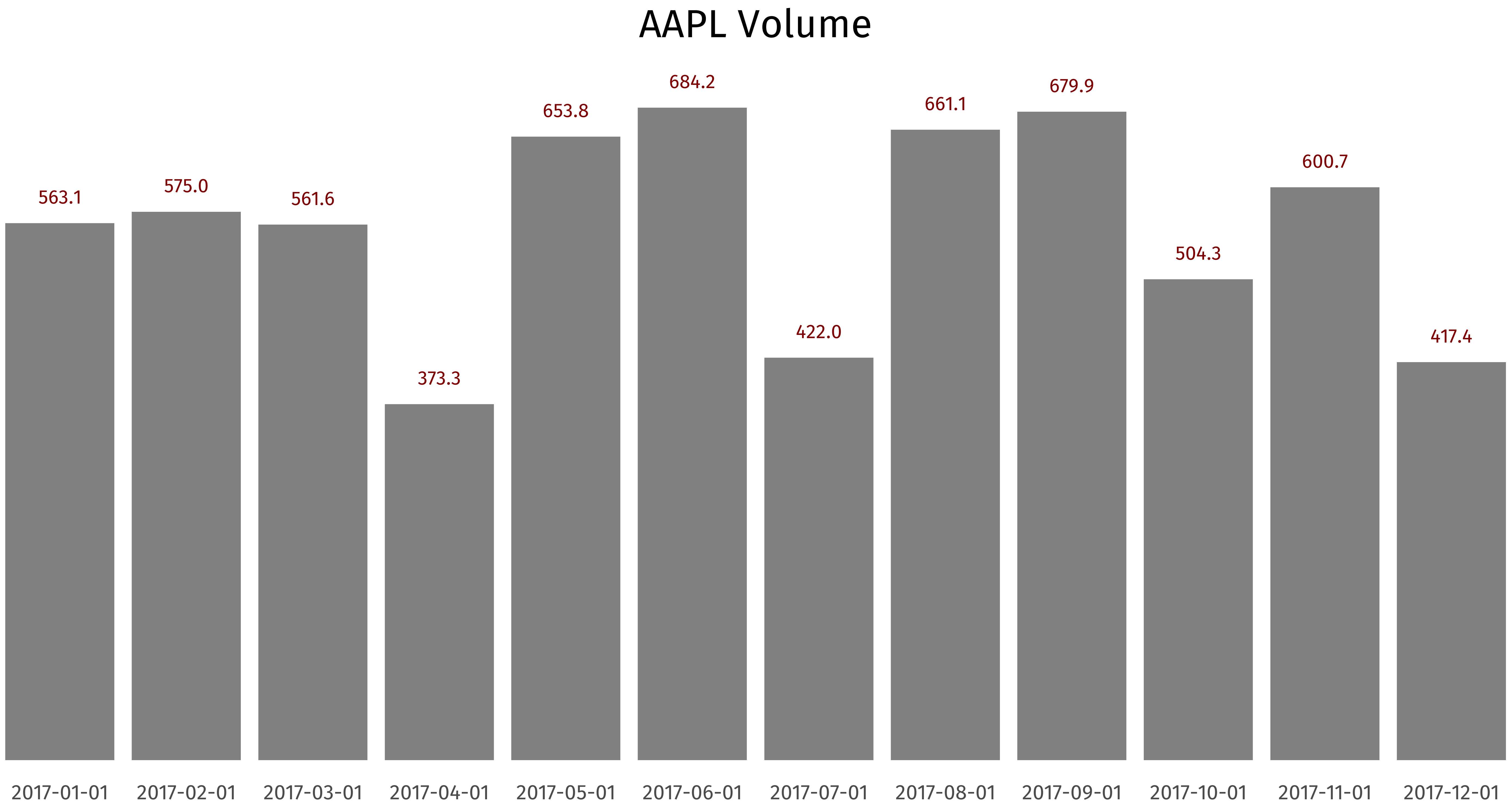
```
dchart -left=20 -right=80 -top=75 -yaxis -xlabel=2 -val -grid AAPL.d
```


AAPL Volume
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-02-01
2017-03-01
2017-04-01
2017-05-01
2017-06-01
2017-07-01
2017-08-01
2017-09-01
2017-10-01
2017-11-01
2017-12-01

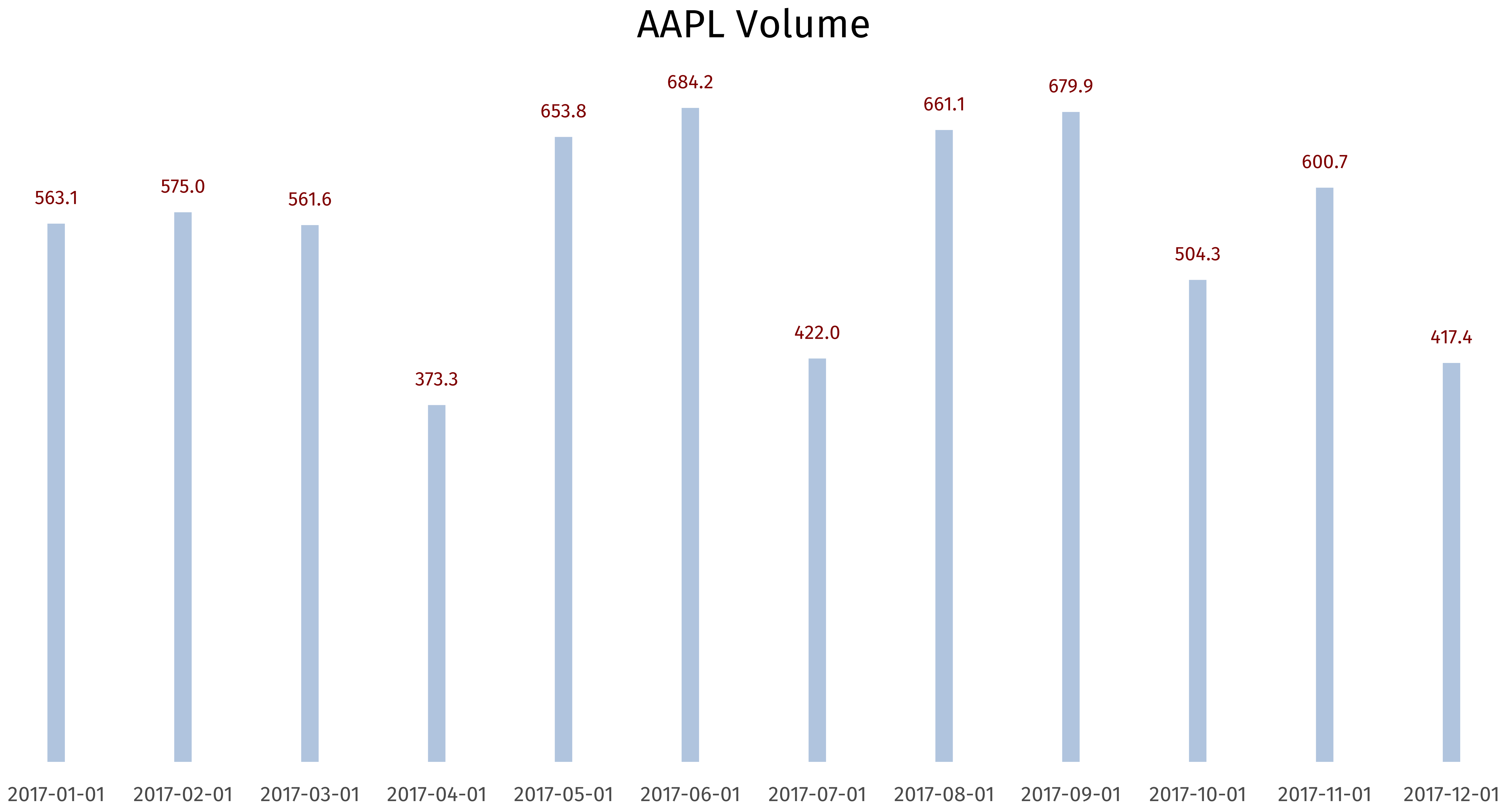
bar


AAPL Volume
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-03-01
2017-05-01
2017-07-01
2017-09-01
2017-11-01

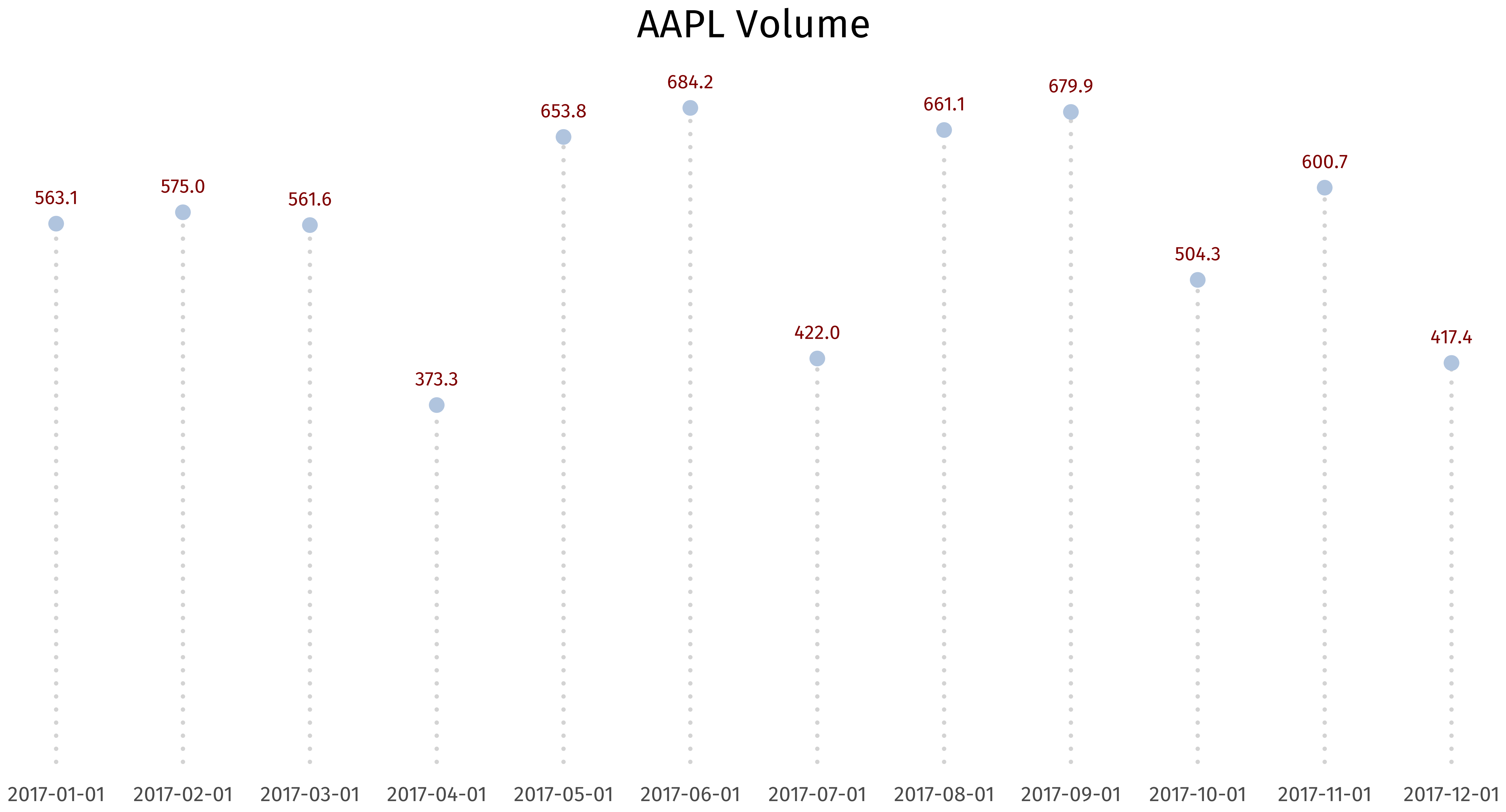
scaled bar



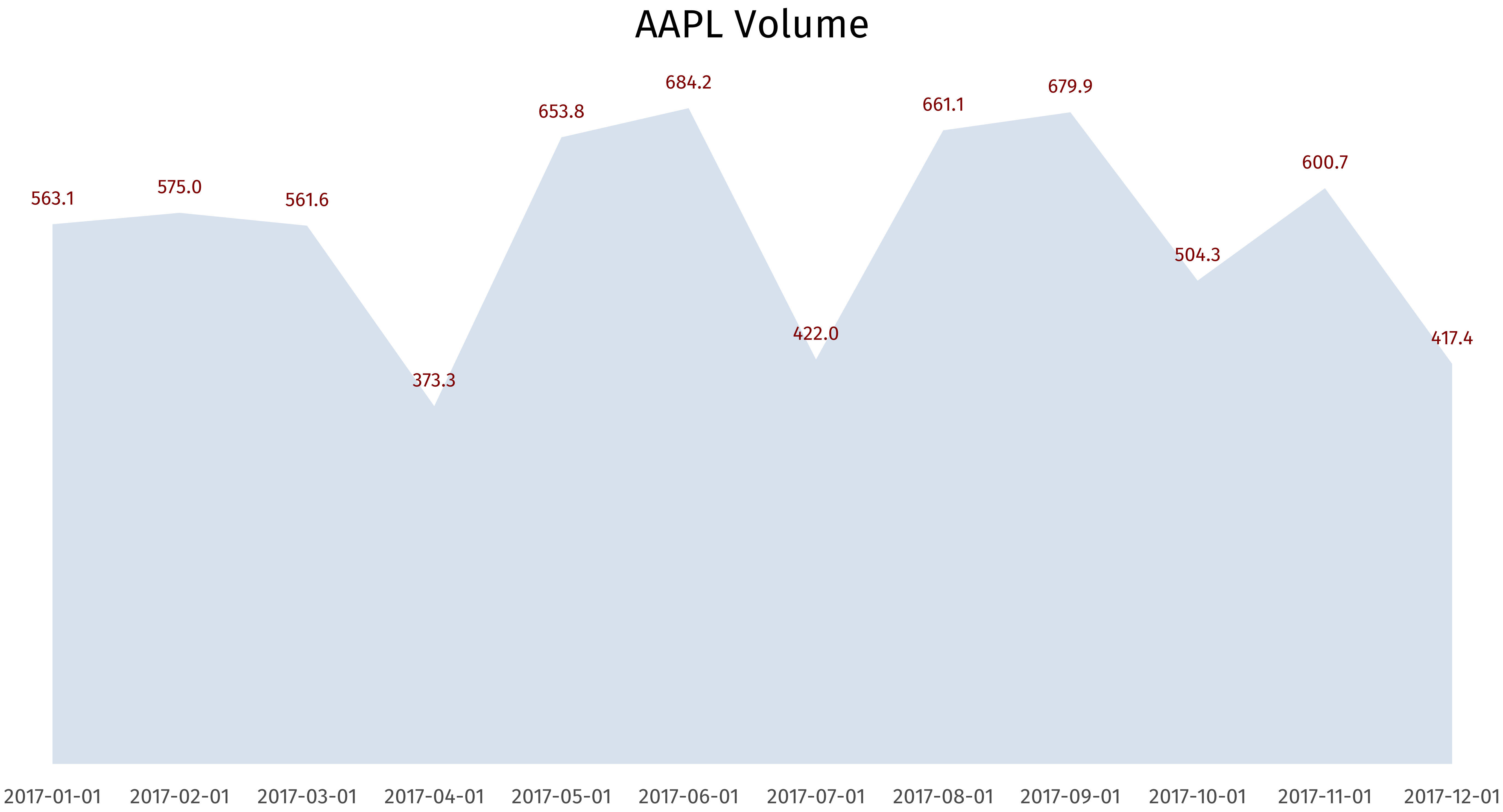
color change



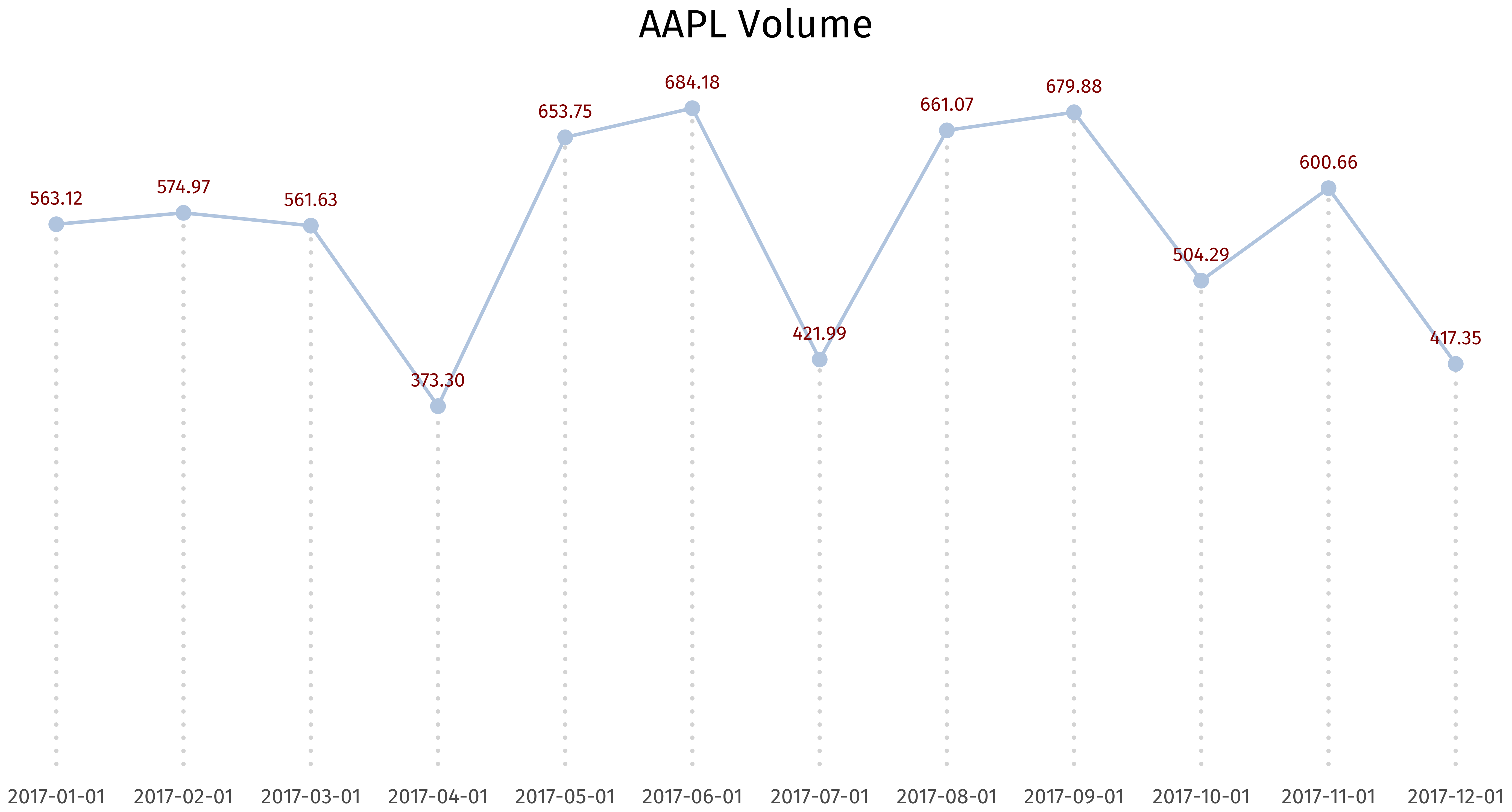
barwith change


AAPL Volume
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-02-01
2017-03-01
2017-04-01
2017-05-01
2017-06-01
2017-07-01
2017-08-01
2017-09-01
2017-10-01
2017-11-01
2017-12-01

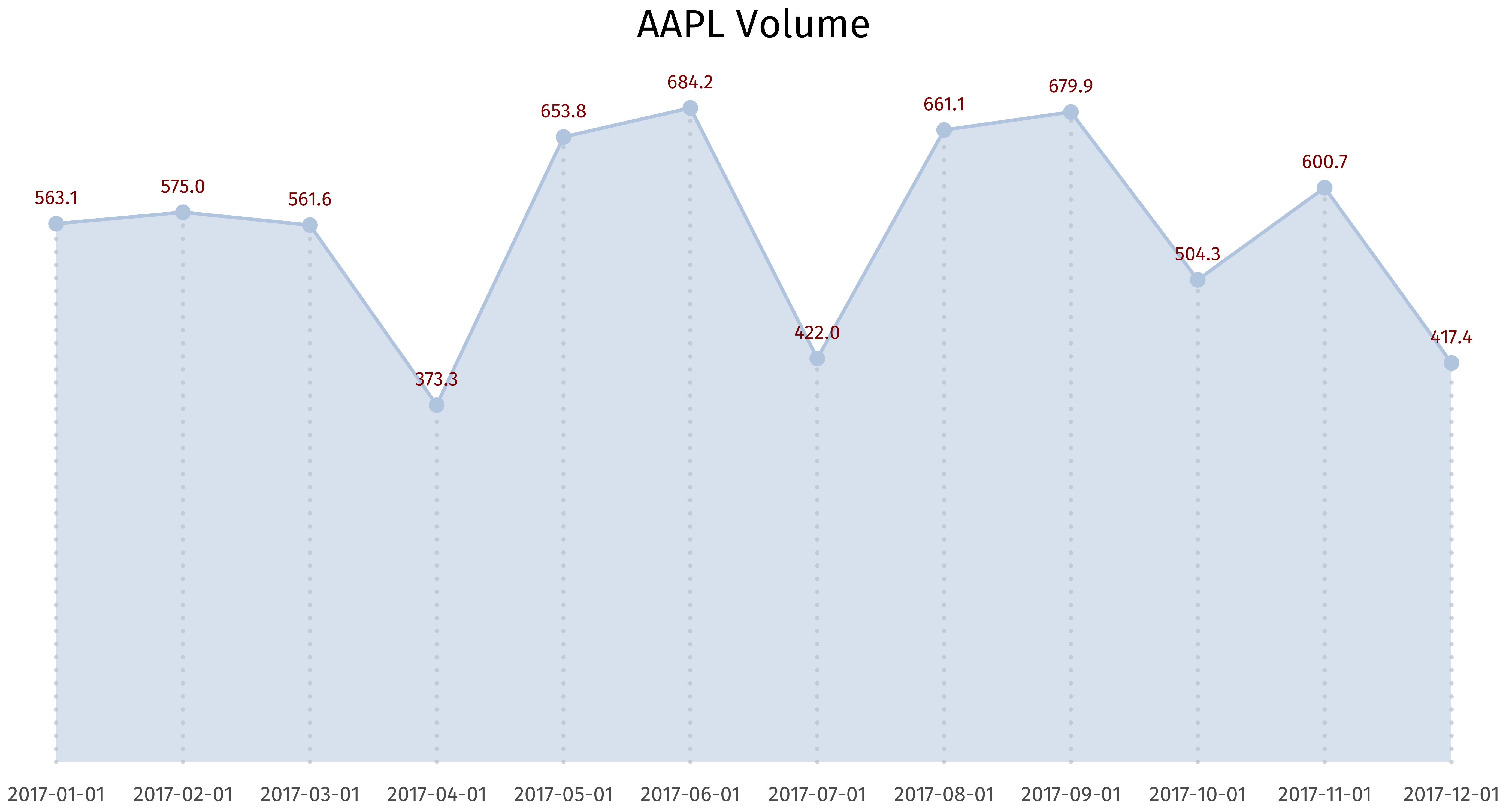
dot


AAPL Volume
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-02-01
2017-03-01
2017-04-01
2017-05-01
2017-06-01
2017-07-01
2017-08-01
2017-09-01
2017-10-01
2017-11-01
2017-12-01

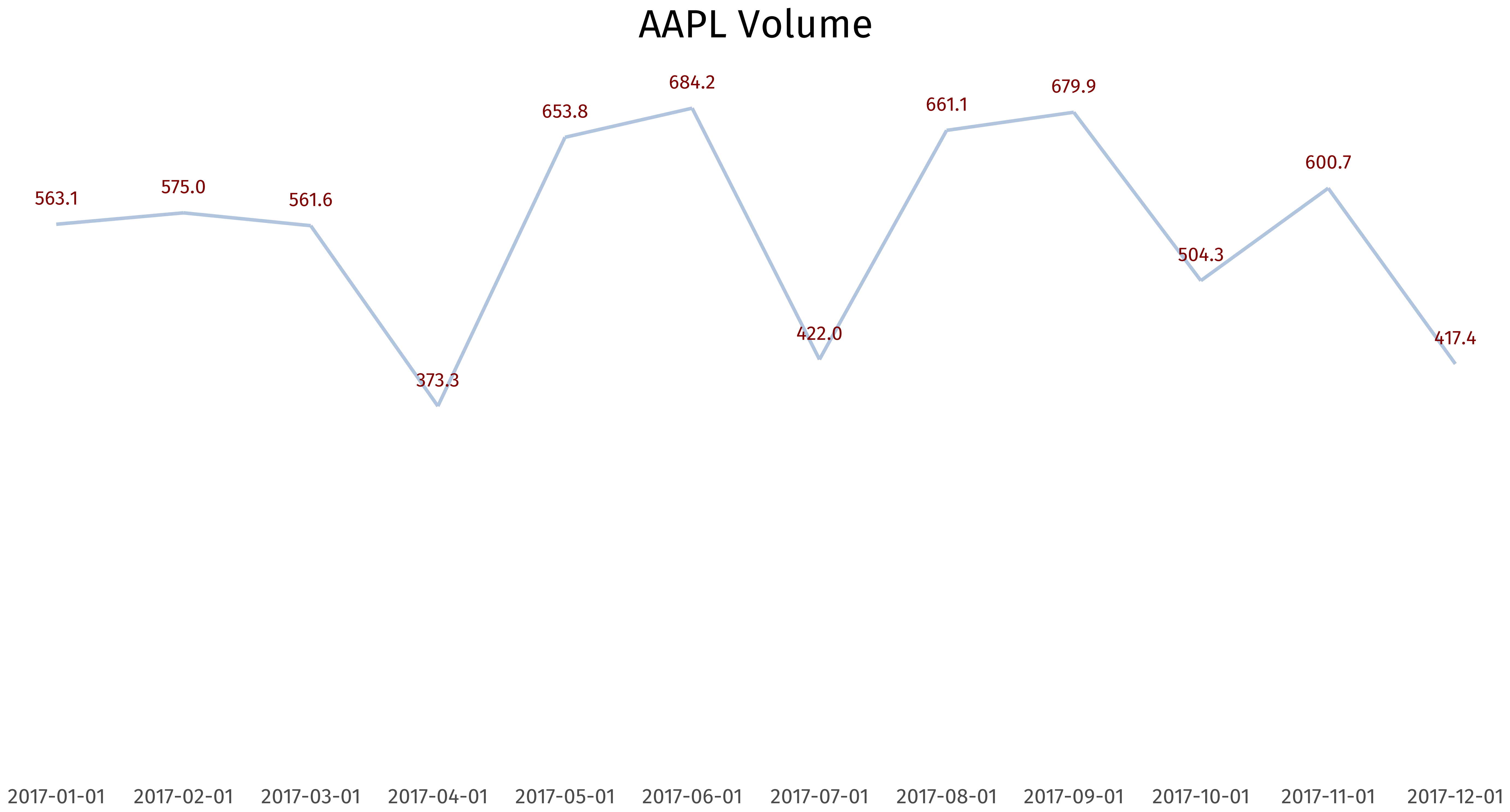
volume



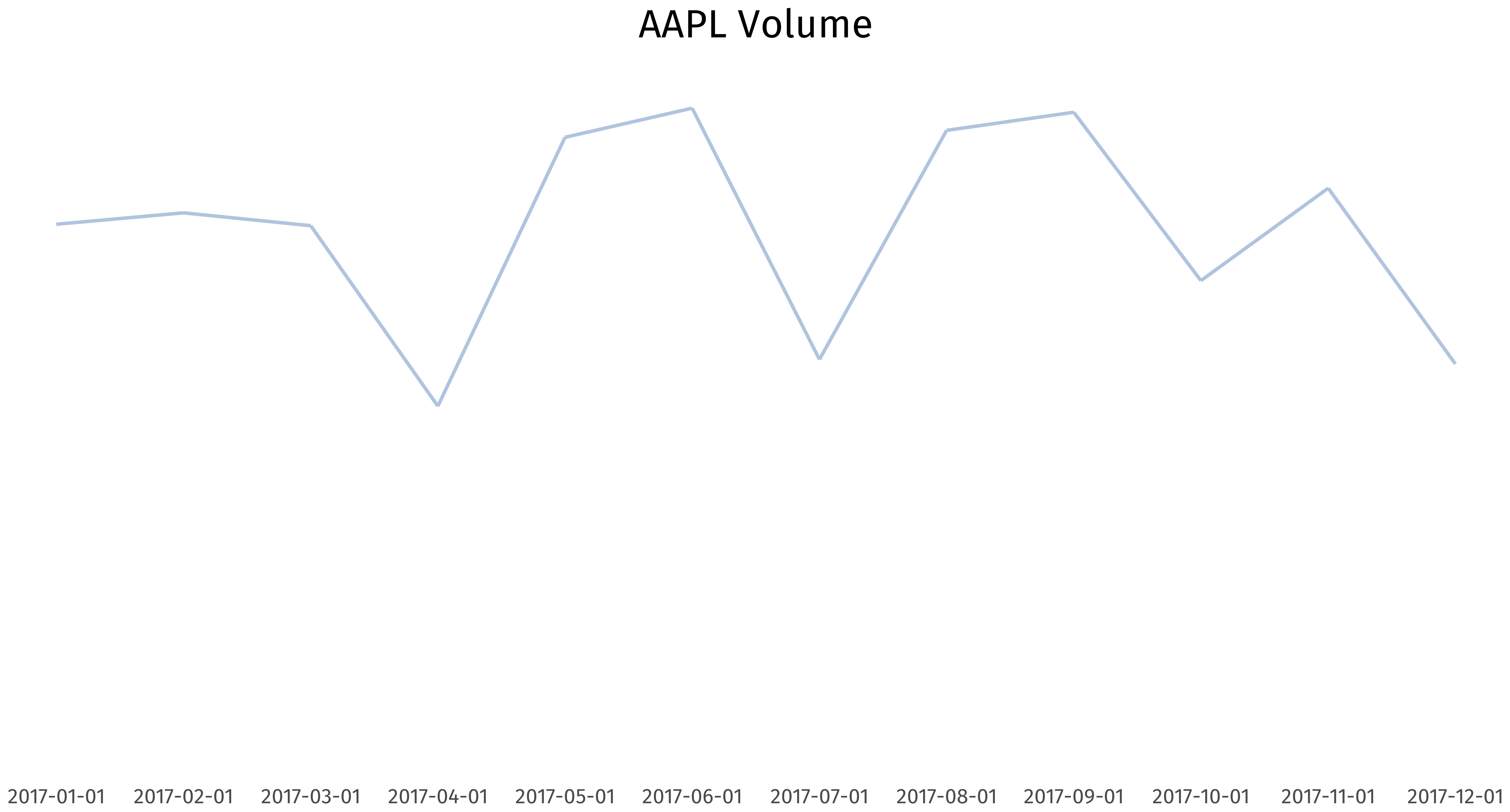
dot + line + value



dot + line + value + volume

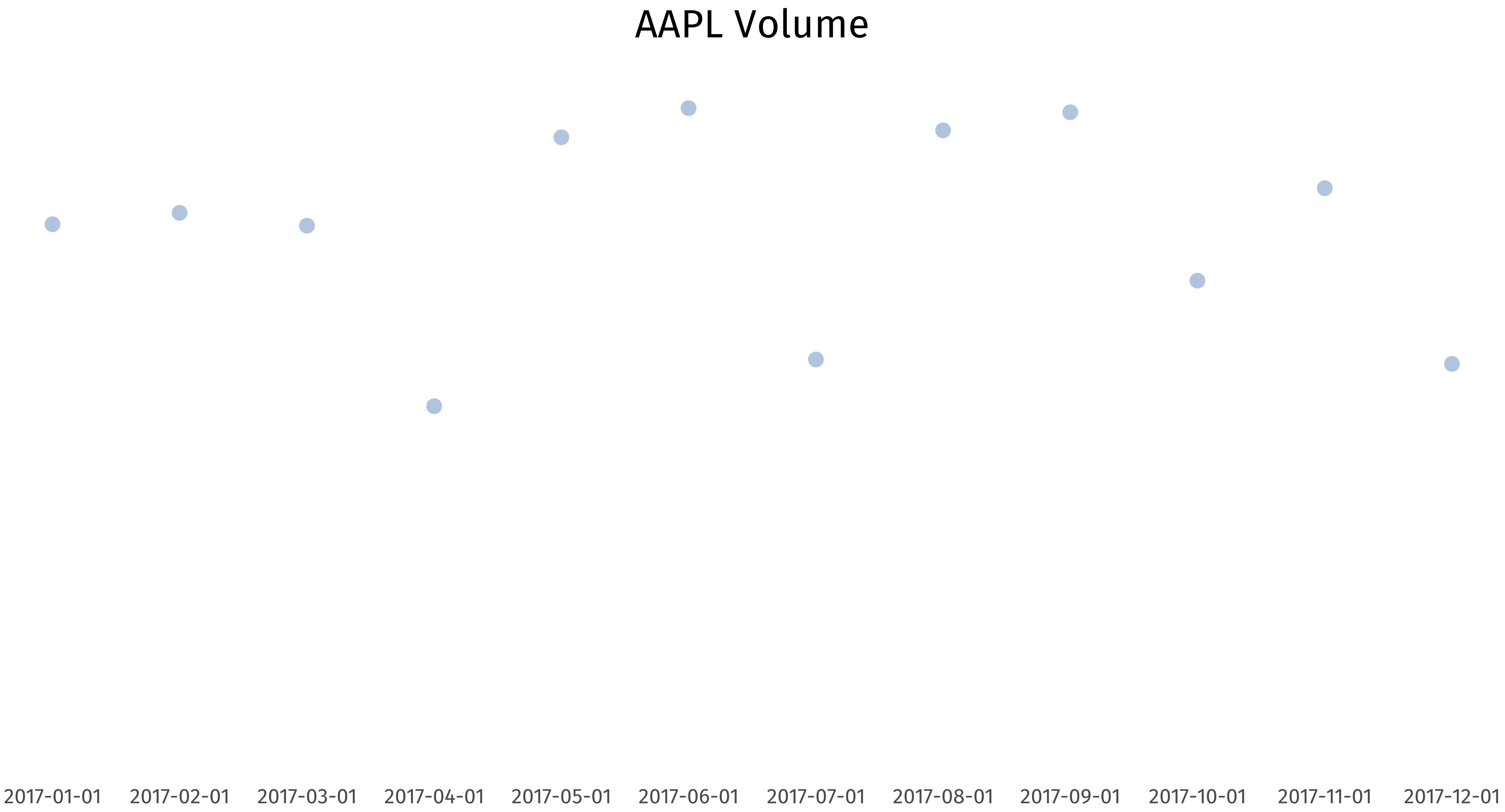

AAPL Volume
563.1
575.0
561.6
373.3
653.8
684.2
422.0
661.1
679.9
504.3
600.7
417.4
2017-01-01
2017-02-01
2017-03-01
2017-04-01
2017-05-01
2017-06-01
2017-07-01
2017-08-01
2017-09-01
2017-10-01
2017-11-01
2017-12-01

line + value

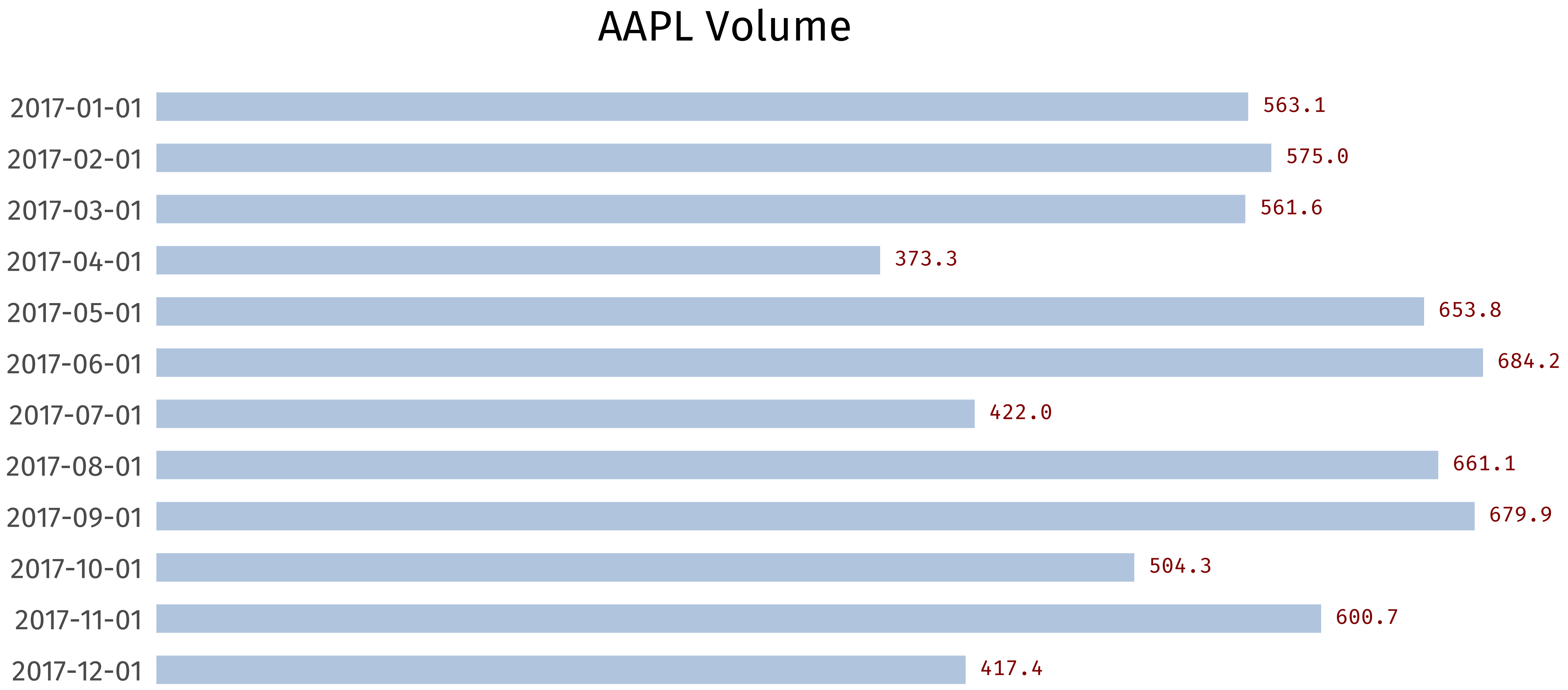


AAPL Volume

line only

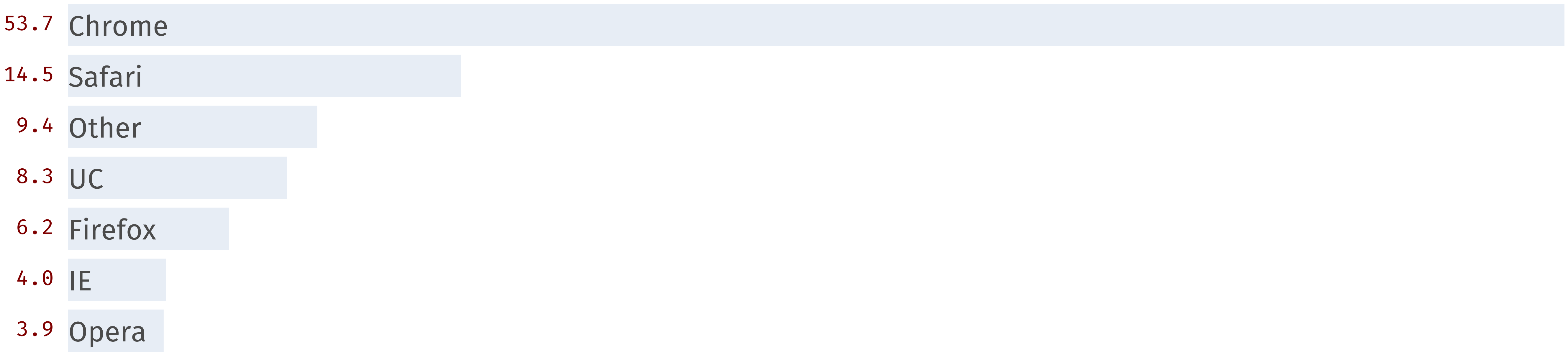

AAPL Volume
2017-01-01
2017-02-01
2017-03-01
2017-04-01
2017-05-01
2017-06-01
2017-07-01
2017-08-01
2017-09-01
2017-10-01
2017-11-01
2017-12-01

scatter

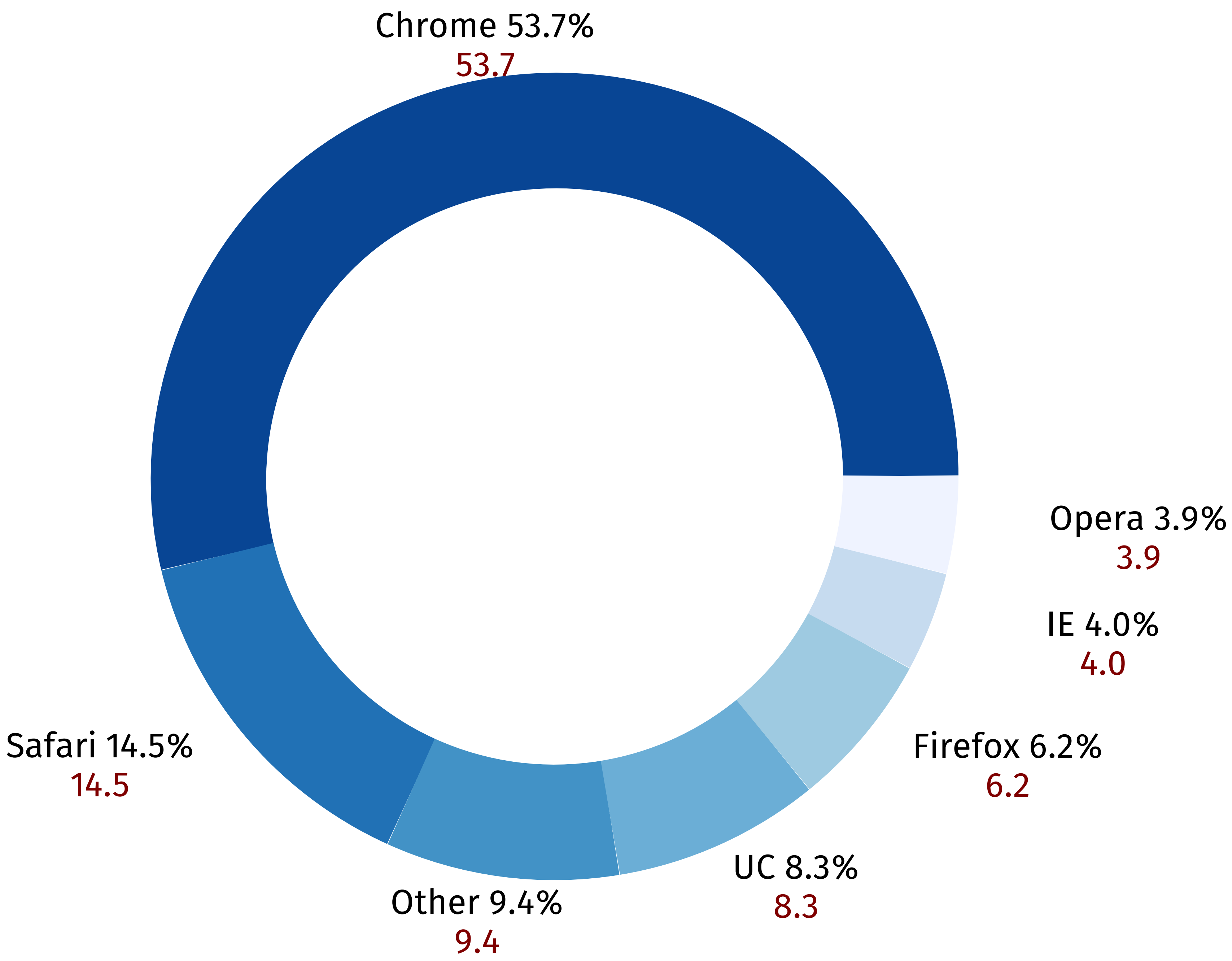


horizontal bar

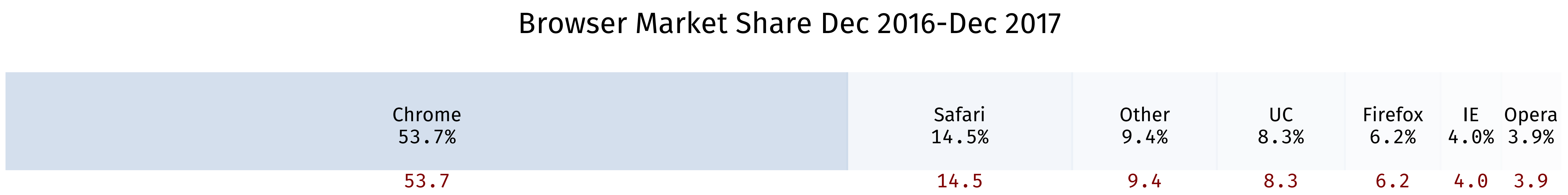
Browser Market Share Dec 2016-Dec 2017



word bar


Chrome 53.7%
53.7
Opera 3.9%
3.9
IE 4.0%
4.0
Firefox 6.2%
6.2
UC 8.3%
8.3
Other 9.4%
9.4
Safari 14.5%
14.5

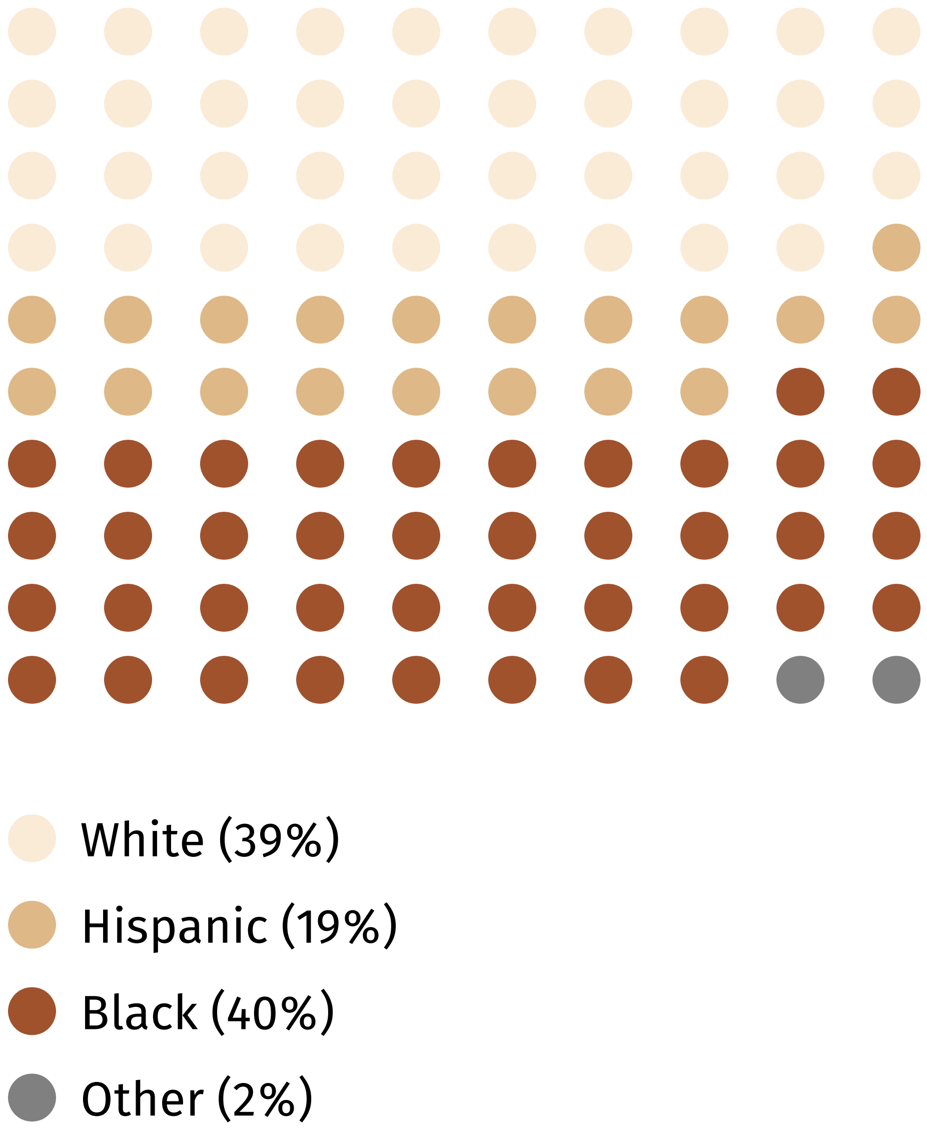
donut



Browser Market Share Dec 2016-Dec 2017
Chrome 53.7%
Safari 14.5%
Other 9.4%
UC 8.3%
Firefox 6.2%
IE 4.0%
Opera 3.9%
53.7
14.5
9.4
8.3
6.2
4.0
3.9

pmap

US Incarceration Rate

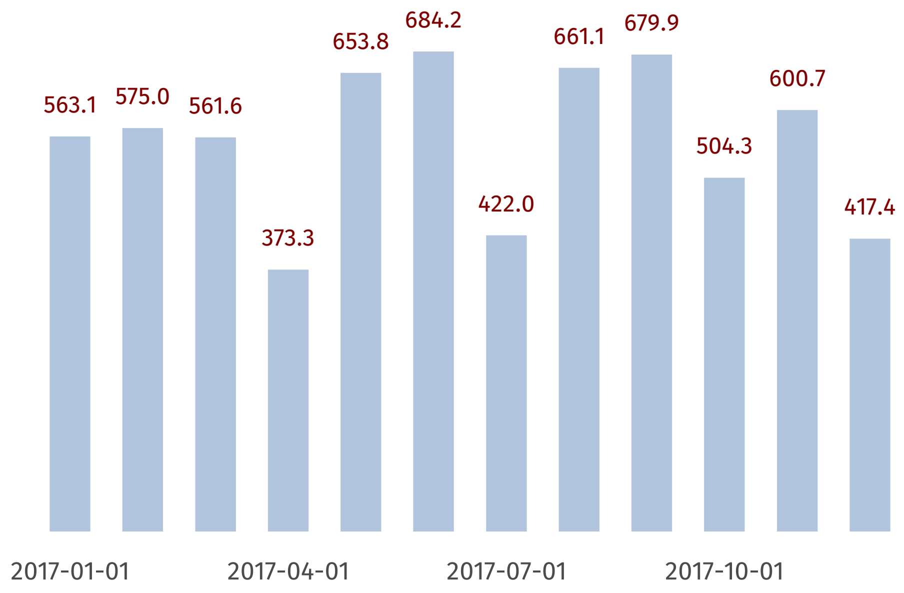


pgrid

```
# AAPL Volume
2017-01-01    563.122
2017-02-01    574.969
2017-03-01    561.628
2017-04-01    373.304
2017-05-01    653.755
2017-06-01    684.178
2017-07-01    421.992
2017-08-01    661.069
2017-09-01    679.879
2017-10-01    504.291
2017-11-01    600.663
2017-12-01    417.354
```

```
<deck>
    <slide>
        <text ...>AAPL Volume</text>
        <line ... color="lightsteelblue"/>
        <text ... color="rgb(127,0,0)">563.1</text>
        <text ... color="rgb(75,75,75)">2017-01-01</text>
    </slide>
</deck>
```

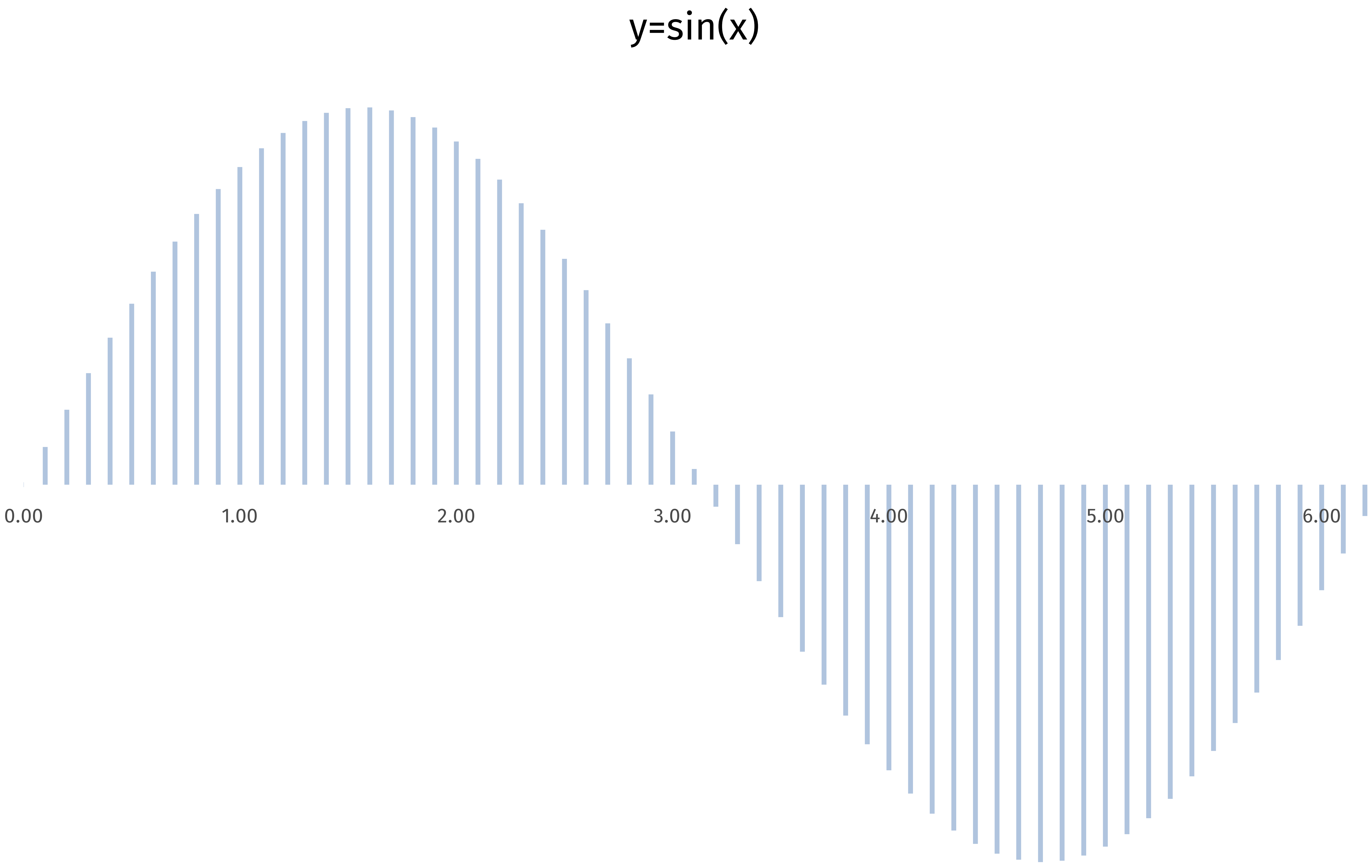
AAPL Volume



data | dchart | pdf

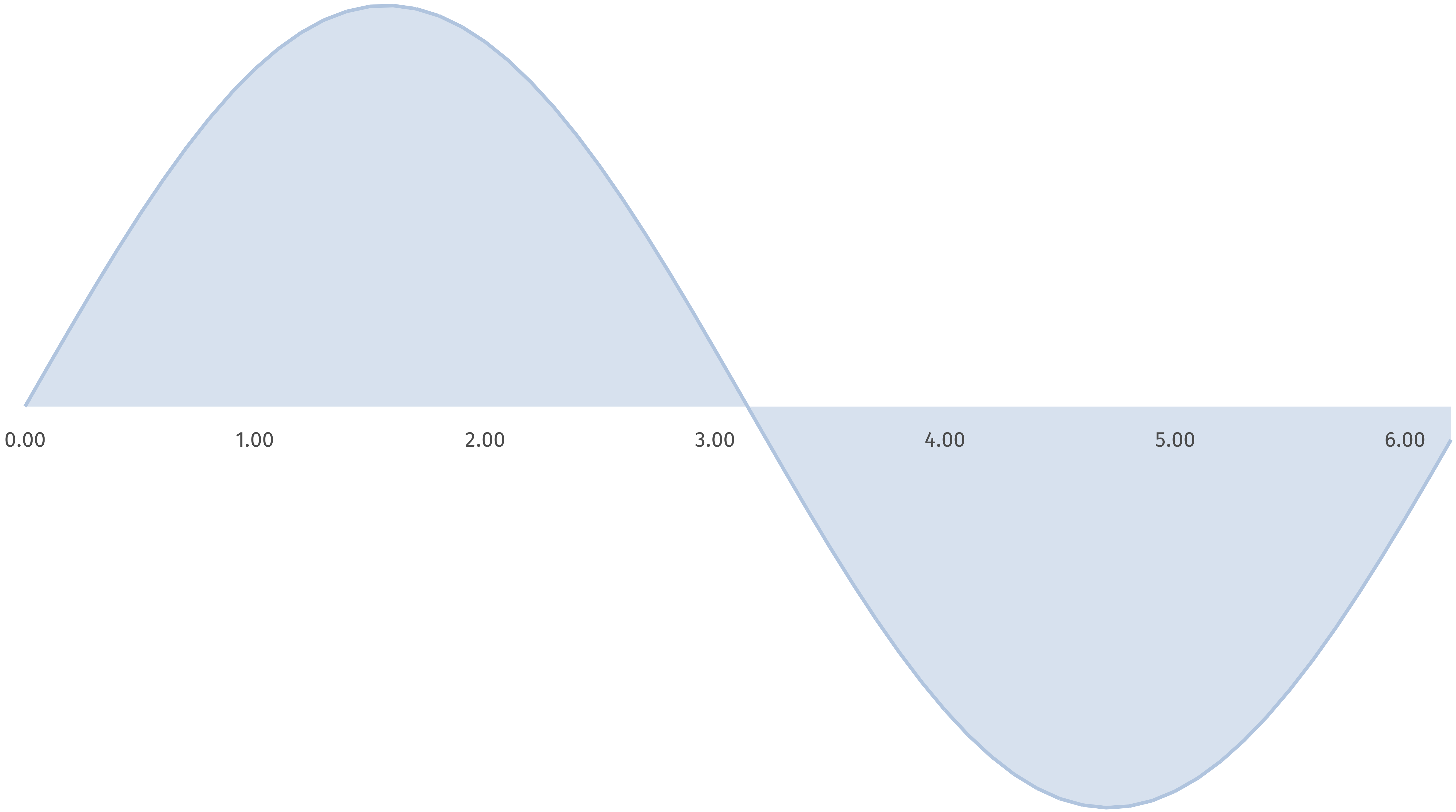
```go
package main

import (
    "fmt"
    "math"
)

func main() {
    fmt.Println("# y=sin(x)")
    for x := 0.0; x < math.Pi*2; x += 0.1 {
        fmt.Printf("%.2f\t%.4f\n", x, math.Sin(x))
    }
}
```

```
# y=sin(x)
0.00    0.0000
0.10    0.0998
0.20    0.1987
0.30    0.2955
0.40    0.3894
0.50    0.4794
0.60    0.5646
0.70    0.6442
0.80    0.7174
...
5.80    -0.4646
5.90    -0.3739
6.00    -0.2794
6.10    -0.1822
6.20    -0.0831
```



```
sine | dchart -val=f -bottom=50 -xlabel=10
```

y=sin(x)



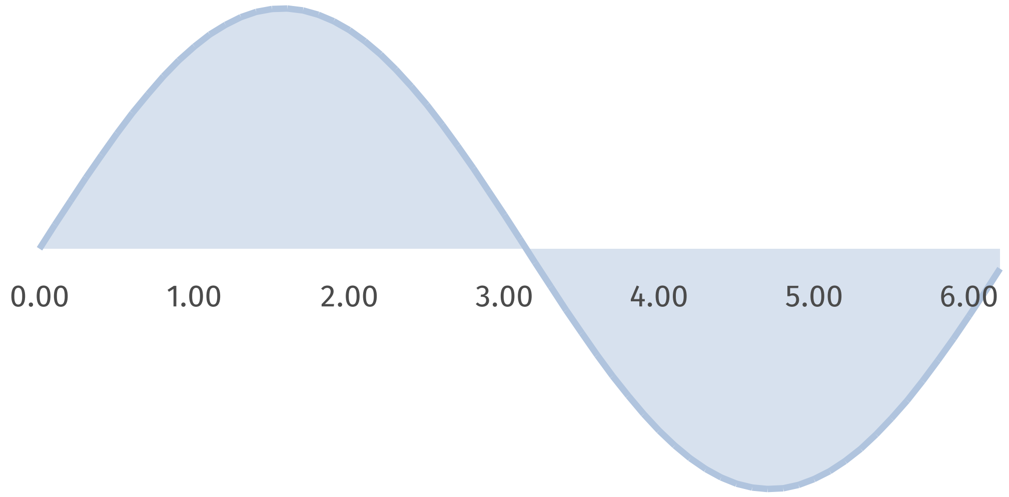
```
sine | dchart -val=f -bottom=50 -xlabel=10 -bar=f -line -vol
```

mfunc.go

```go
package main

import (
    "flag"
    "fmt"
    "math"
)

type tfunc struct {
    label    string
    function func(float64) float64
}

func main() {
    fname := flag.String("f", "sine", "function name")
    xrange := flag.String("x", "0,6.283185,0.1", "x range")
    flag.Parse()

    var (
        f tfunc
        xmin  = 0.0
        xmax  = 2 * math.Pi
        xstep = 0.1
    )
    fmt.Sscanf(*xrange, "%f,%f,%f", &xmin, &xmax, &xstep)
    switch *fname {
    case "e", "exp":
        f = tfunc{"y=e(x)", math.Exp}
    case "log":
        f = tfunc{"y=log(x)", math.Log10}
    case "sqrt":
        f = tfunc{"y=sqrt(x)", math.Sqrt}
    case "sine", "sin":
        f = tfunc{"y=sin(x)", math.Sin}
    case "cosine", "cos":
        f = tfunc{"y=cos(x)", math.Cos}
    case "sincos":
        f = tfunc{"y=sin(x) * cos(x)",
            func(x float64) float64 { return math.Sin(x) * math.Cos(x) }}
    default:
        f = tfunc{"y=1", func(float64) float64 { return 1 }}
    }
    fmt.Printf("# %s\n", f.label)
    for x := xmin; x < xmax; x += xstep {
        fmt.Printf("%.2f\t%.4f\n", x, f.function(x))
    }
}
```

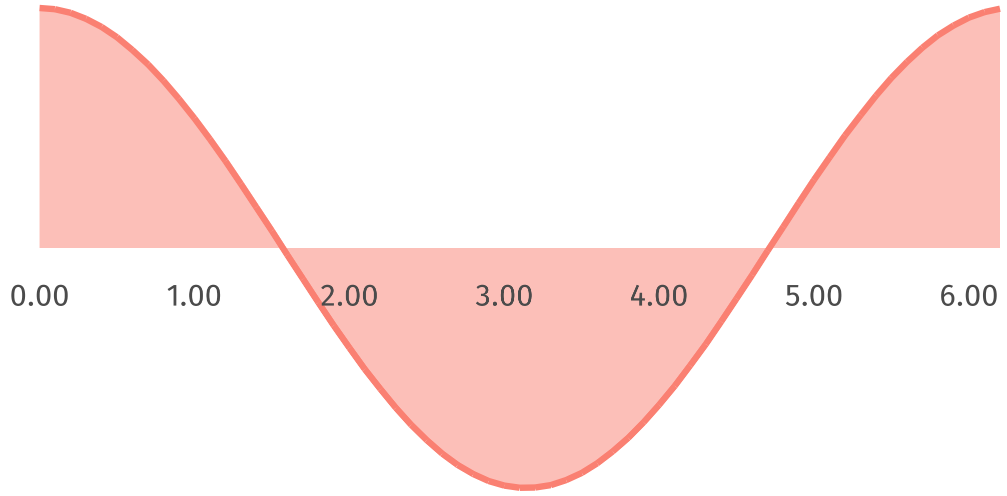
y=sin(x)

```
mfunc -f sine | dchart ... -top=90 -bottom=80
```



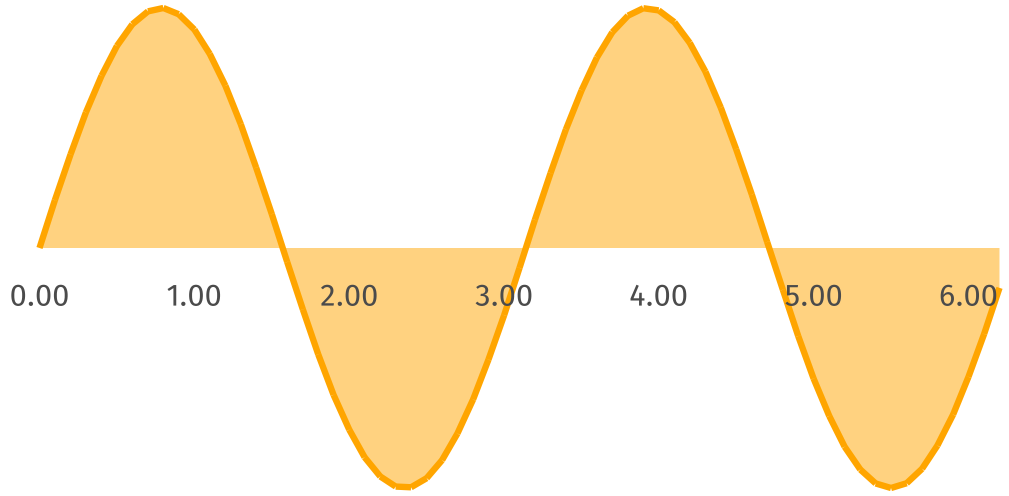
y=cos(x)

```
mfunc -f cosine | dchart ... -top=60 -bottom=50
```

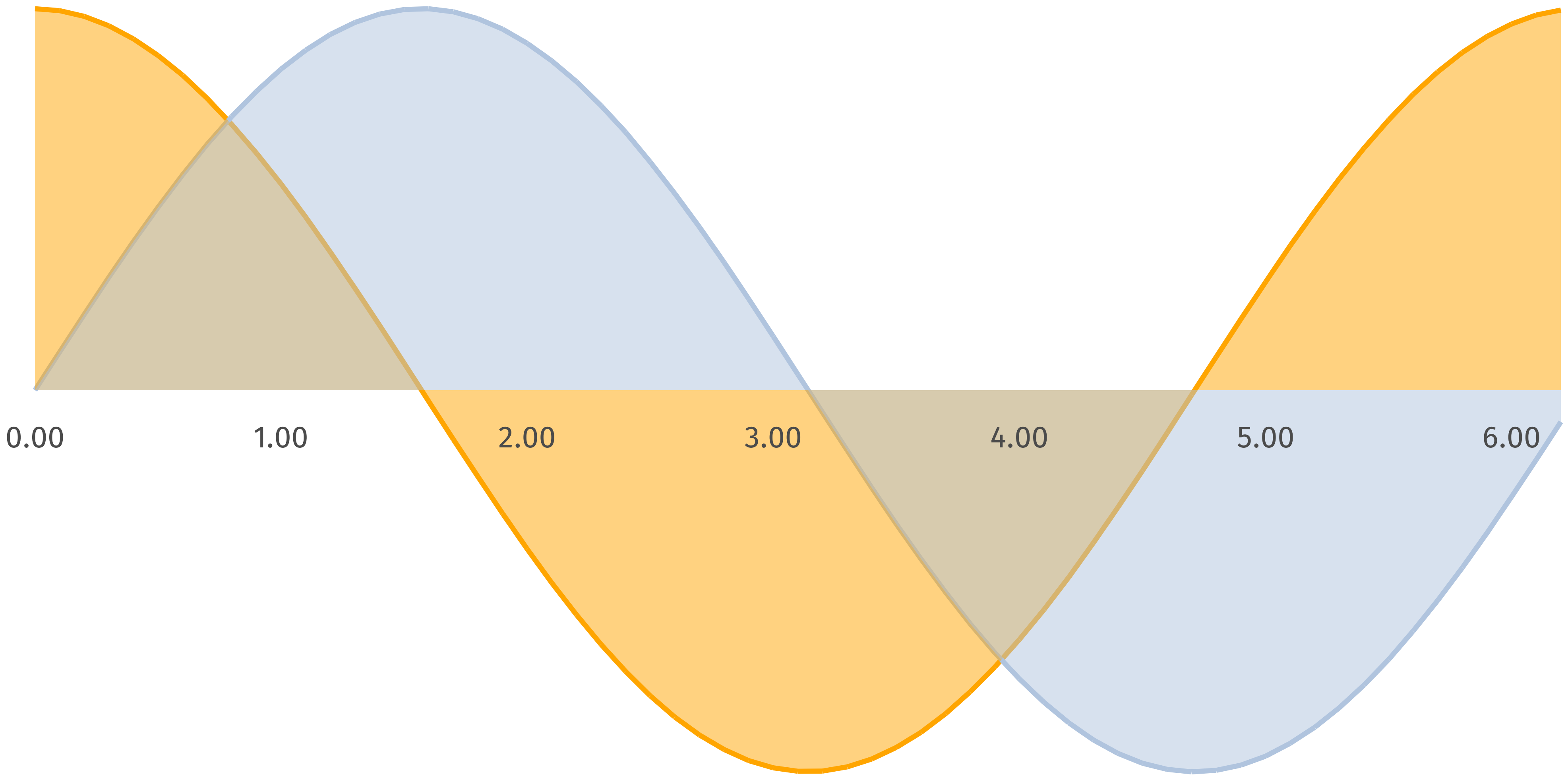


y=sin(x) * cos(x)

```
mfunc -f sincos | dchart ... -top=30 -bottom=20
```



```
#!/bin/sh
dim="-top=50 -bottom=30 -left=20 -right=80"
copt="-fulldeck=f -title=f -val=f -bar=f -line -vol"
(
echo '<deck><slide>'
./mfunc -f cos  | dchart $copt $dim -xlabel=10 -color=orange
./mfunc -f sin  | dchart $copt $dim -xlabel=0
echo '</slide></deck>'
)
```


0.00
1.00
2.00
3.00
4.00
5.00
6.00