

# Refresher on xts and the plot() function Arnaud Amsellem The R Trader

VISUALIZING TIME SERIES DATA IN R

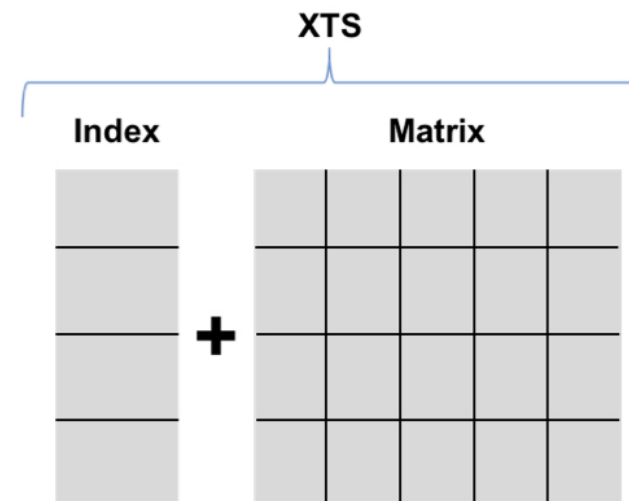
**Arnaud Amsellem**

Quantitative Trader and creator of the R  
Trader blog



# Refresher on xts

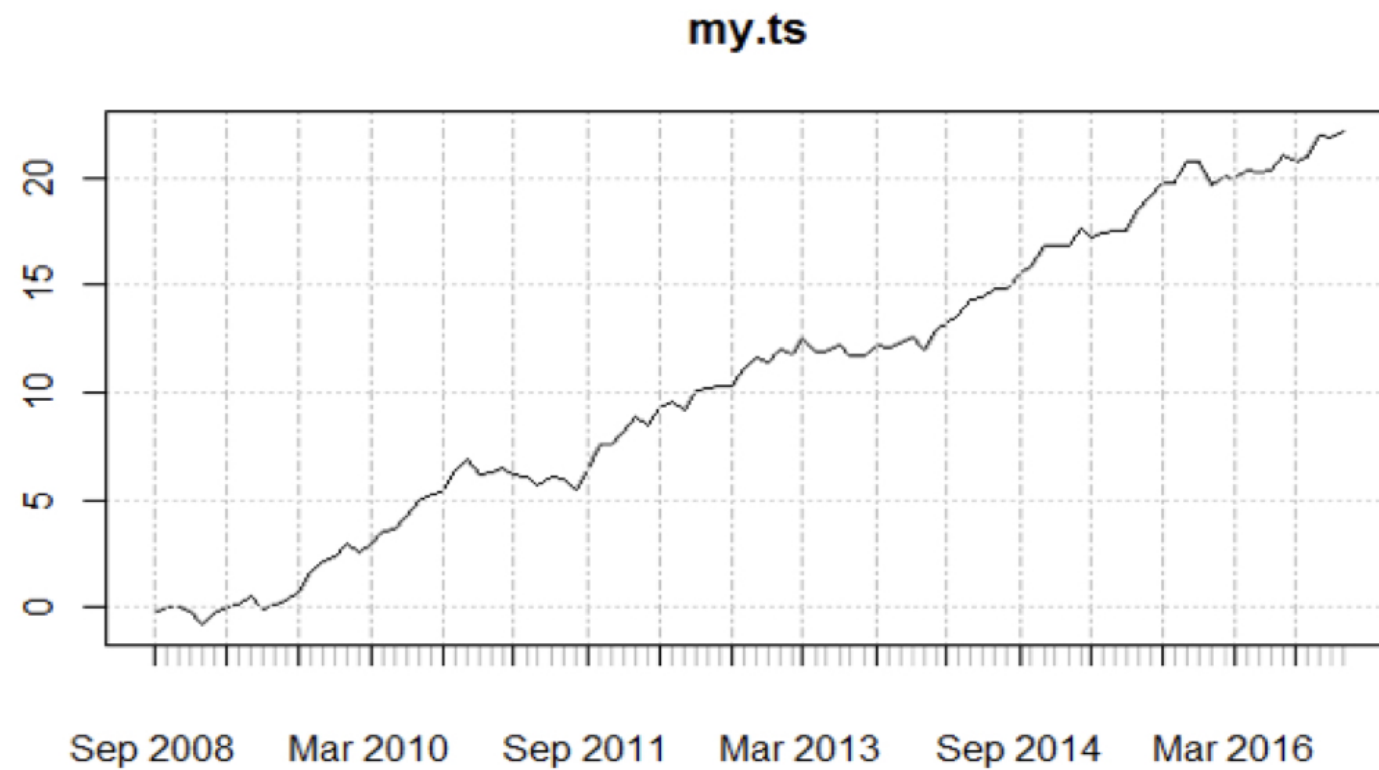
- A special class of object to handle time series
- eXtensible Time Series
- `xts` = Time Index + Matrix
- The index is a time object: `Date` , `POSIX Time` , `timeDate` , `chron`



# plot() and plot.xts()

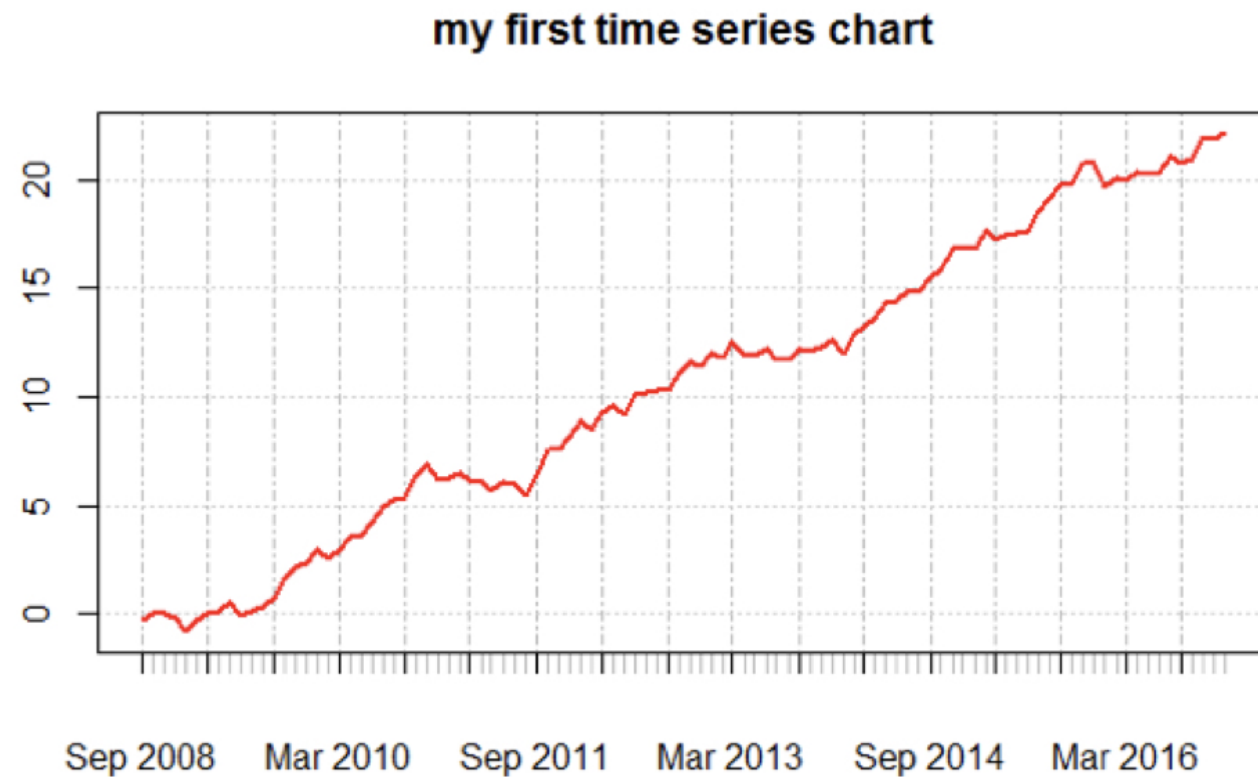
- `plot()`
- `plot.xts()`
- `plot()` can be used instead of `plot.xts()` when the object to be plotted is an `xts` object

# Using the plot() function



```
plot(my_ts)
```

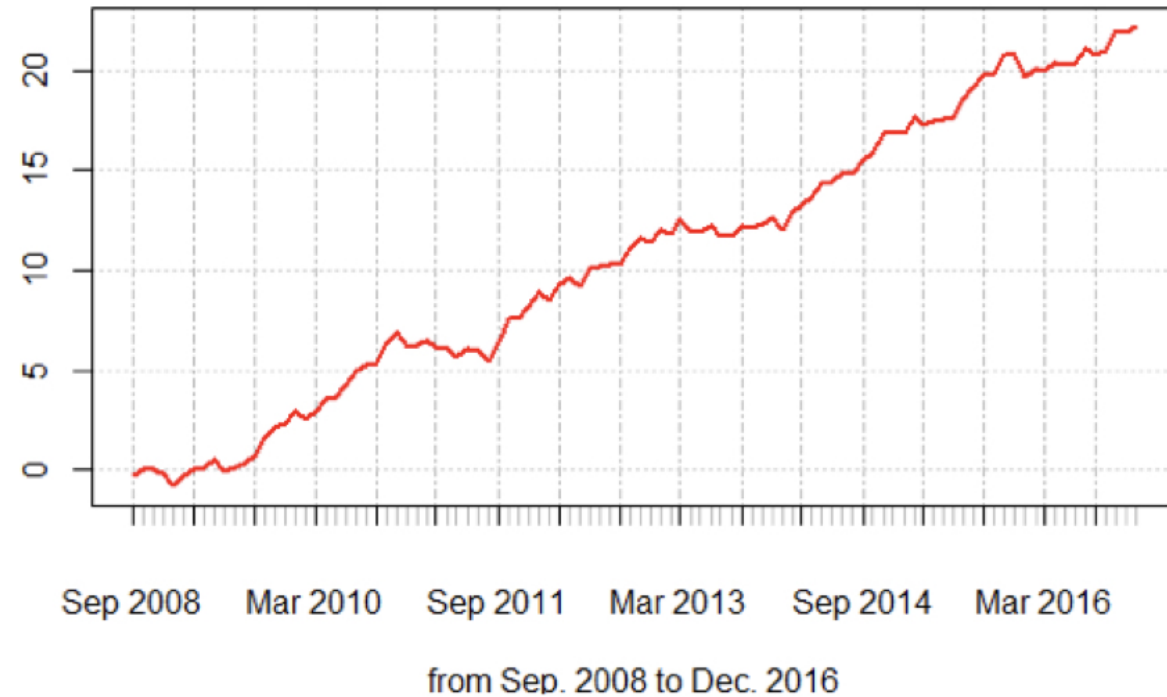
# Using the plot() function



```
plot(my_ts, main = "my first time series")  
lines(my_ts, col = "red", lwd = 2)
```

# Using the plot() function

my first time series chart



```
plot(my_ts, main = "my first time series",  
      sub = "from Sep. 2008 to Dec. 2016")  
lines(my_ts, col = "red", lwd = 2)
```

# Let's practice!

VISUALIZING TIME SERIES DATA IN R

# Other useful visualizing functions

VISUALIZING TIME SERIES DATA IN R

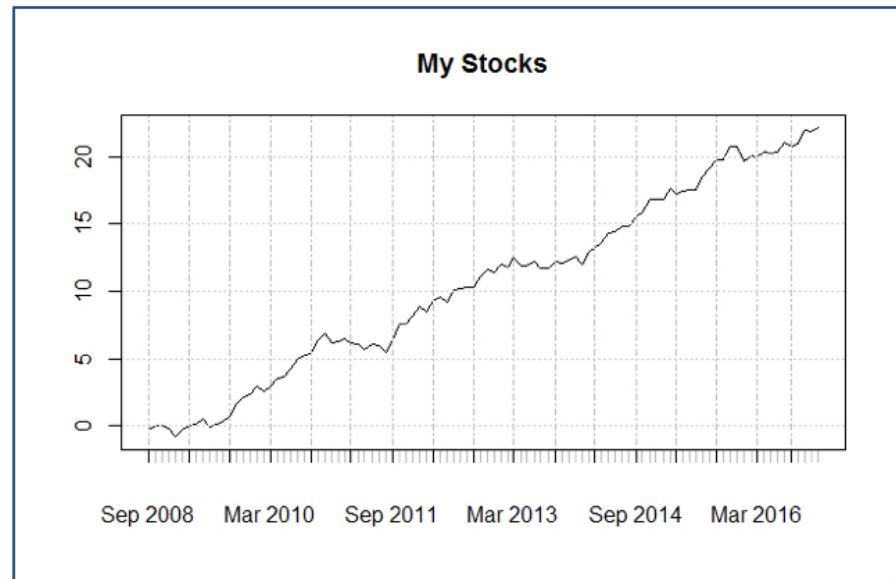


**Arnaud Amsellem**

Quantitative Trader and creator of the R  
Trader blog

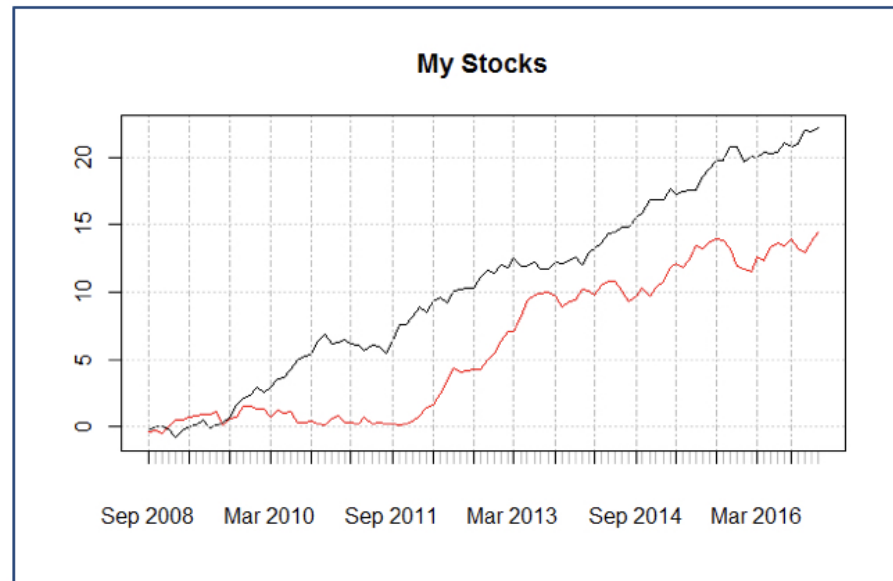


# Other useful visualizing functions



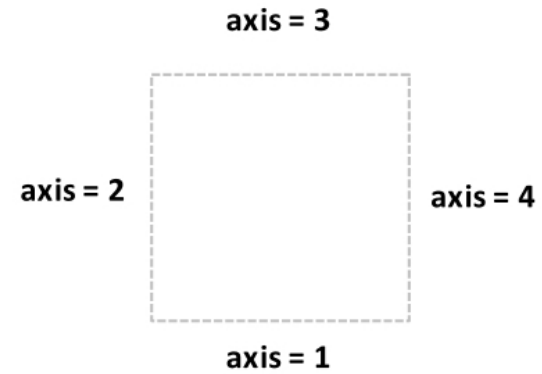
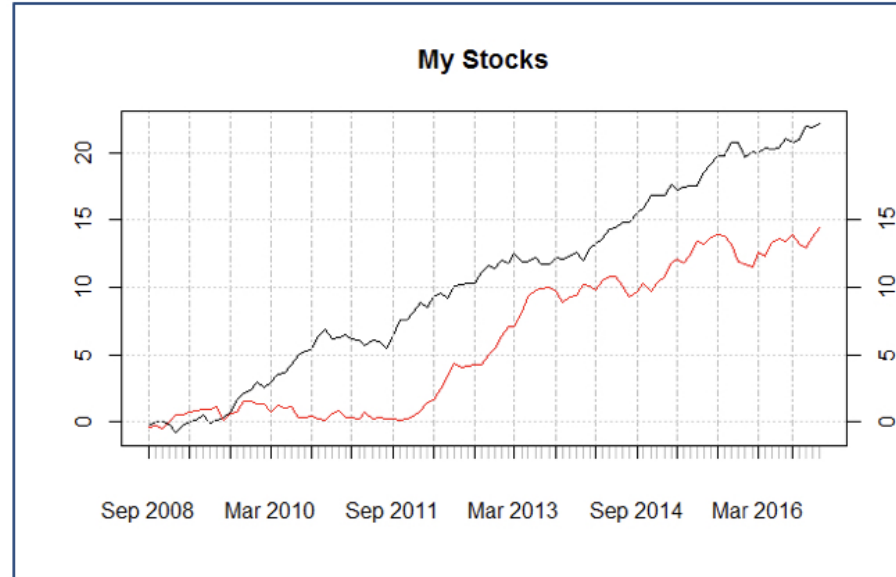
```
plot(my_ts, main = "My Stocks")
```

# Other useful visualizing functions



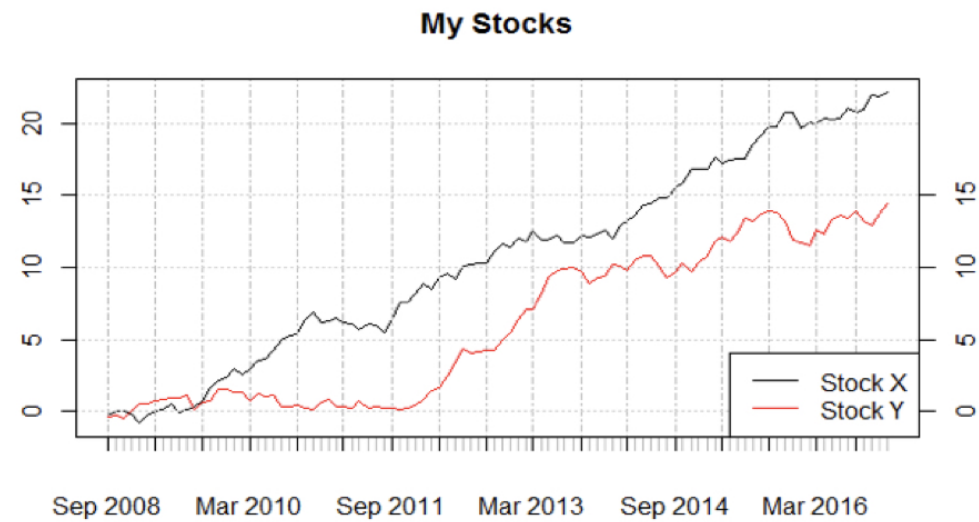
```
plot(my_ts, main = "My Stocks")  
lines(my_ts2, col = "red")
```

# Other useful visualizing functions



```
plot(my_ts, main = "My Stocks")  
lines(my_ts2, col = "red")  
axis(side = 4, at = pretty(my_ts2))
```

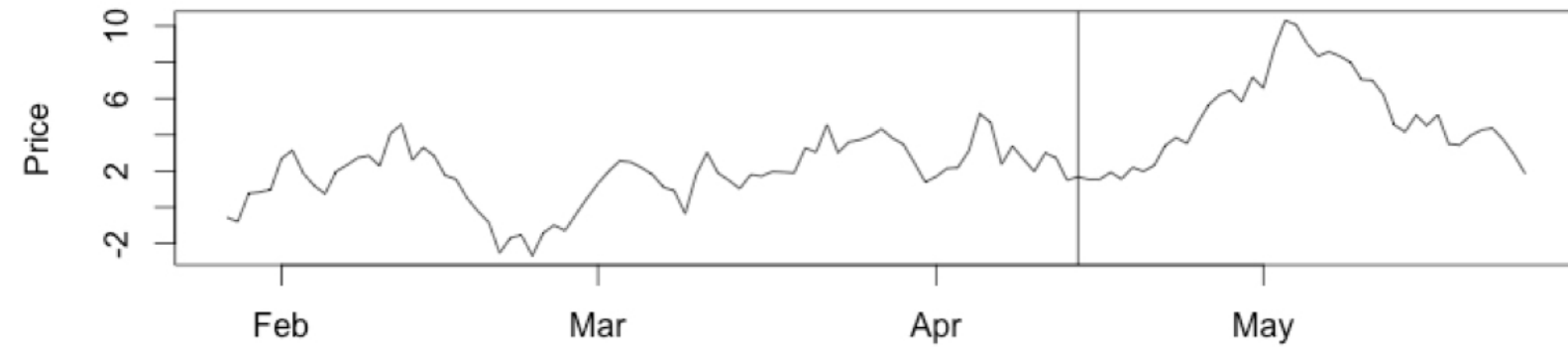
# Other useful visualizing functions



```
plot(my_ts, main = "My Stocks")
lines(my_ts2, col = "red")
axis(side = 4, at = pretty(my_ts2))
legend(x = "bottomright", legend = c("Stock X", "Stock Y"),
       col = c("black", "red"), lty = c(1, 1))
```

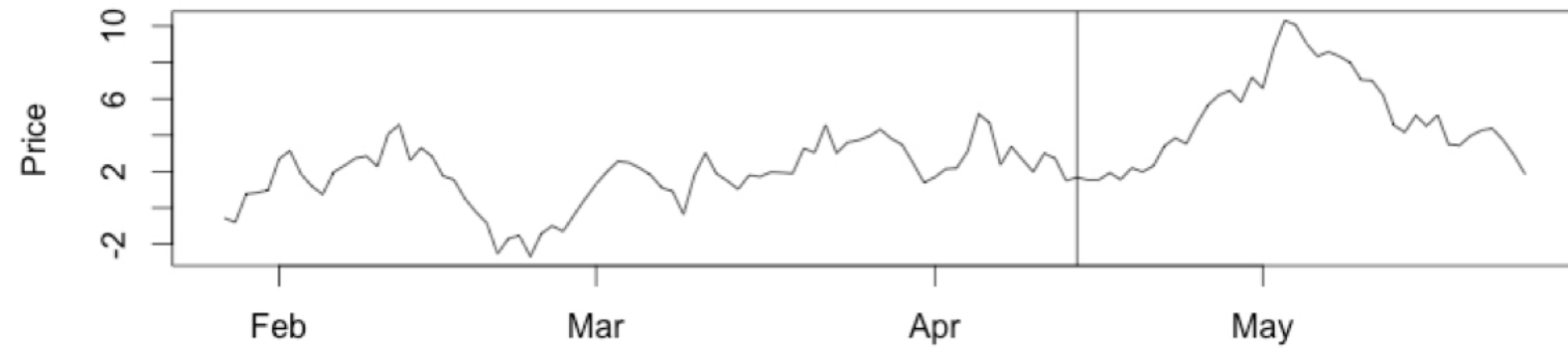
# abline()-example

```
abline(v = as.Date("2016-04-14"))
```

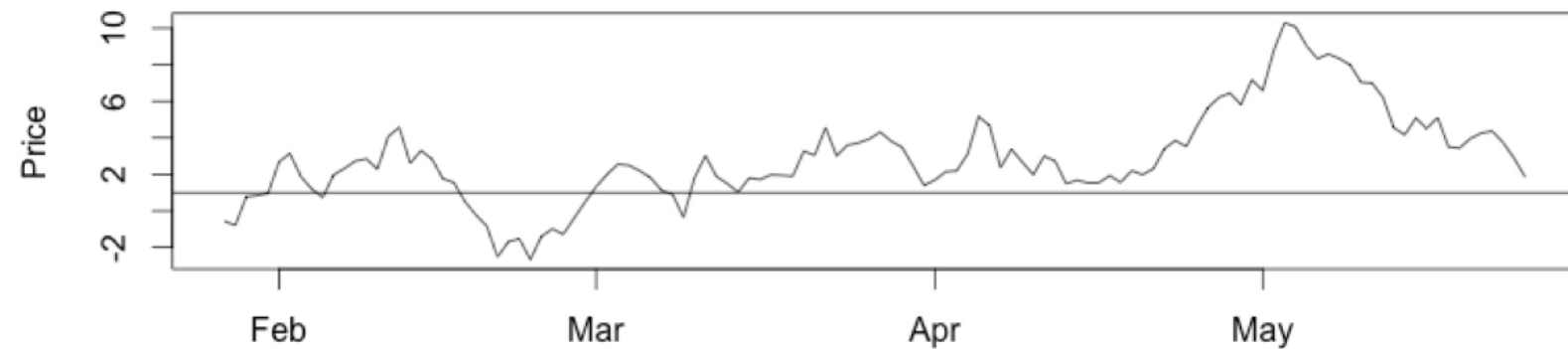


# abline()-example

```
abline(v = as.Date("2016-04-14"))
```

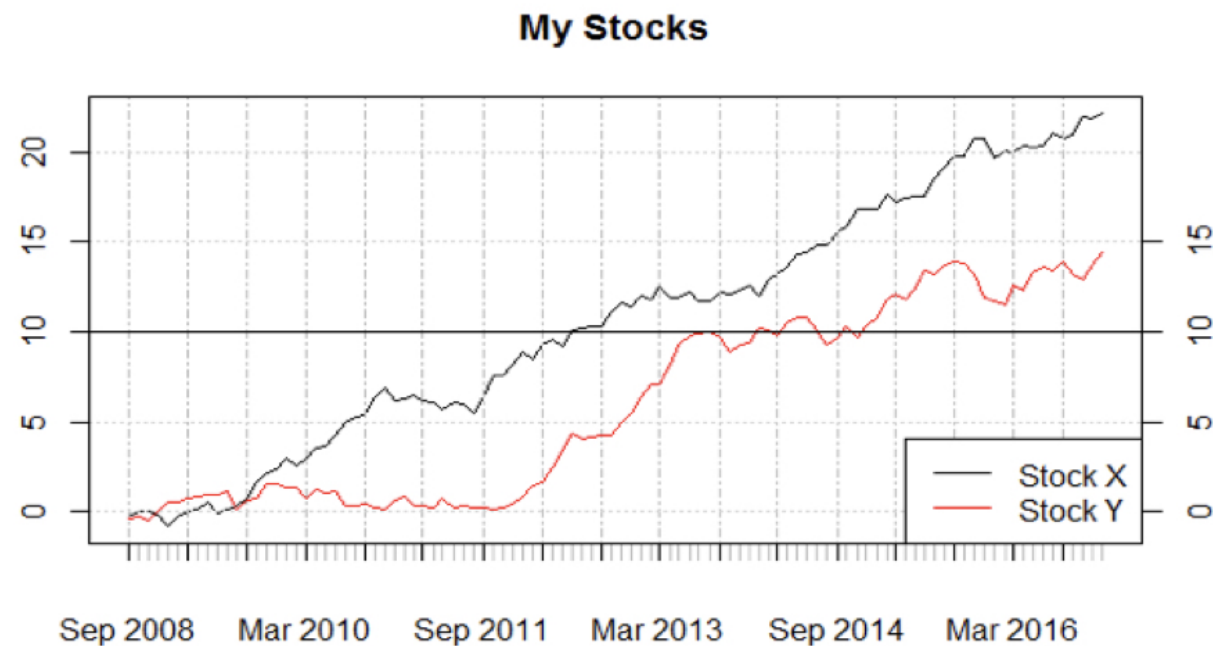


```
abline(h = 1)
```



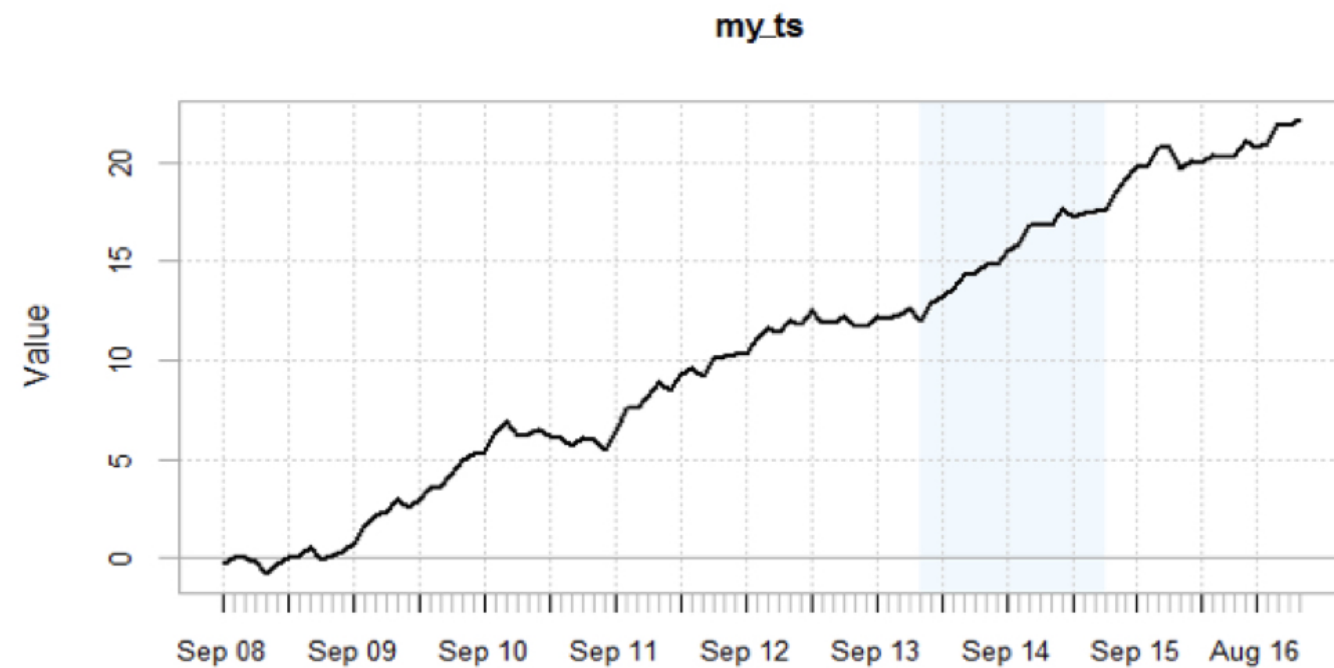
# Other useful visualizing functions

```
plot(my_ts, main = "My Stocks")
lines(my_ts2, col = "red")
axis(side = 4, at = pretty(my_ts2))
legend(x = "bottomright", legend = c("Stock X", "Stock Y"),
       col = c("black", "red"), lty = c(1, 1))
abline(h = 10)
```



# Other useful visualizing functions

```
library(PerformanceAnalytics)
period <- c("2014-01/2015-06")
chart.TimeSeries(my_ts, period.areas = period, main = "my_ts")
```





# Let's practice!

VISUALIZING TIME SERIES DATA IN R