

# Análisis y Tratamiento de Datos con R: Departamento de Matemática

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Ejemplo basado de <http://blog.revolutionanalytics.com/2015/08/plotting-time-series-in-r.html> y modificado

## Time Series Plotting

```
library(ggplot2)
library(xts)
```

```
## Loading required package: zoo
```

```
##
```

```
## Attaching package: 'zoo'
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##      as.Date, as.Date.numeric
```

```
library(dygraphs)
library(quantmod)
```

```
## Loading required package: TTR
```

```
## Version 0.4-0 included new data defaults. See ?getSymbols.
```

## Get IBM and Linkedin stock data from Yahoo Finance

```
yahoo.read <- function(symb){
  getSymbols(symb, src = "yahoo", return.class = "xts")
  expre <- parse(text = paste("df <- ", symb,"[, 4]", sep = ""))
  eval(expre)
  names(df) <- "Close"
  return(df)
}

ibm <- yahoo.read("IBM")
```

---

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```
## 'getSymbols' currently uses auto.assign=TRUE by default, but will
## use auto.assign=FALSE in 0.5-0. You will still be able to use
## 'loadSymbols' to automatically load data. getOption("getSymbols.env")
## and getOption("getSymbols.auto.assign") will still be checked for
## alternate defaults.
##
## This message is shown once per session and may be disabled by setting
## options("getSymbols.warning4.0"=FALSE). See ?getSymbols for details.

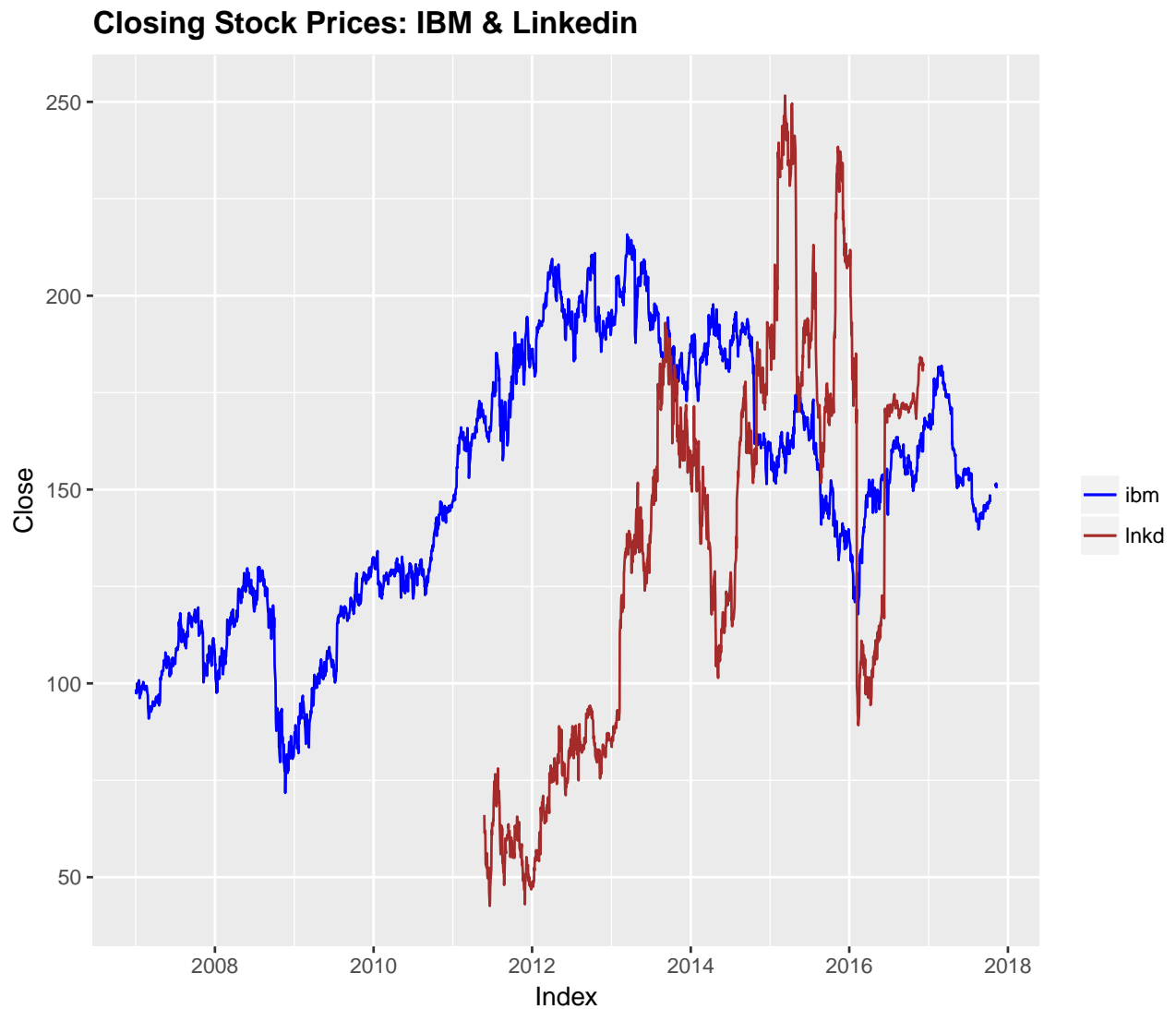
##
## WARNING: There have been significant changes to Yahoo Finance data.
## Please see the Warning section of '?getSymbols.yahoo' for details.
##
## This message is shown once per session and may be disabled by setting
## options("getSymbols.yahoo.warning"=FALSE).

## Warning: IBM contains missing values. Some functions will not work if
## objects contain missing values in the middle of the series. Consider using
## na.omit(), na.approx(), na.fill(), etc to remove or replace them.
```

```
lnkd <- yahoo.read("LKI.F")
```

```
## Warning: LKI.F contains missing values. Some functions will not work if
## objects contain missing values in the middle of the series. Consider using
## na.omit(), na.approx(), na.fill(), etc to remove or replace them.
```

```
ggplot(ibm, aes(x = Index, y = Close)) +
  geom_line(aes(color="ibm")) +
  geom_line(data=lnkd, aes(color="lnkd")) +
  labs(color="Legend") +
  scale_colour_manual("", breaks = c("ibm", "lnkd"),
                      values = c("blue", "brown")) +
  ggtitle("Closing Stock Prices: IBM & LinkedIn") +
  theme(plot.title = element_text(lineheight=.7, face="bold"))
```



### Plot with the htmlwidget dygraphs

```
stocks <- cbind(ibm,lnkd)
names(stocks) <- c("..1", "..2")

dygraph(stocks,ylab="Close",
  main="IBM and Linkedin Closing Stock Prices") %>%
  dySeries("..1",label="IBM") %>%
  dySeries("..2",label="LNKD") %>%
  dyOptions(colors = c("blue","brown")) %>%
  dyRangeSelector()
```

## PhantomJS not found. You can install it with `webshot::install_phantomjs()`. If it is installed, please