Stock prediction

Said

24/2/2019

Precios de acciones

La idea es usar Prophet para predecir Stock

```
#install.packages("prophet")
library(prophet)
```

```
## Loading required package: Rcpp
```

```
## Loading required package: rlang
```

```
## Warning: package 'rlang' was built under R version 3.5.2
```

```
library(reshape)

setwd("~/Github/Tools/Stock/")
```

Including Plots

Leer los datos y acomodar el input para Prophet.

```
## Using Date as id variables
```

Inicio de Prophet

Se inician las variables:

```
m <- prophet(df.melt,daily.seasonality = TRUE)

future <- make_future_dataframe(m, periods = 365)
tail(future)
```

```
##              ds
## 7911 2017-11-25
## 7912 2017-11-26
## 7913 2017-11-27
## 7914 2017-11-28
## 7915 2017-11-29
## 7916 2017-11-30
```

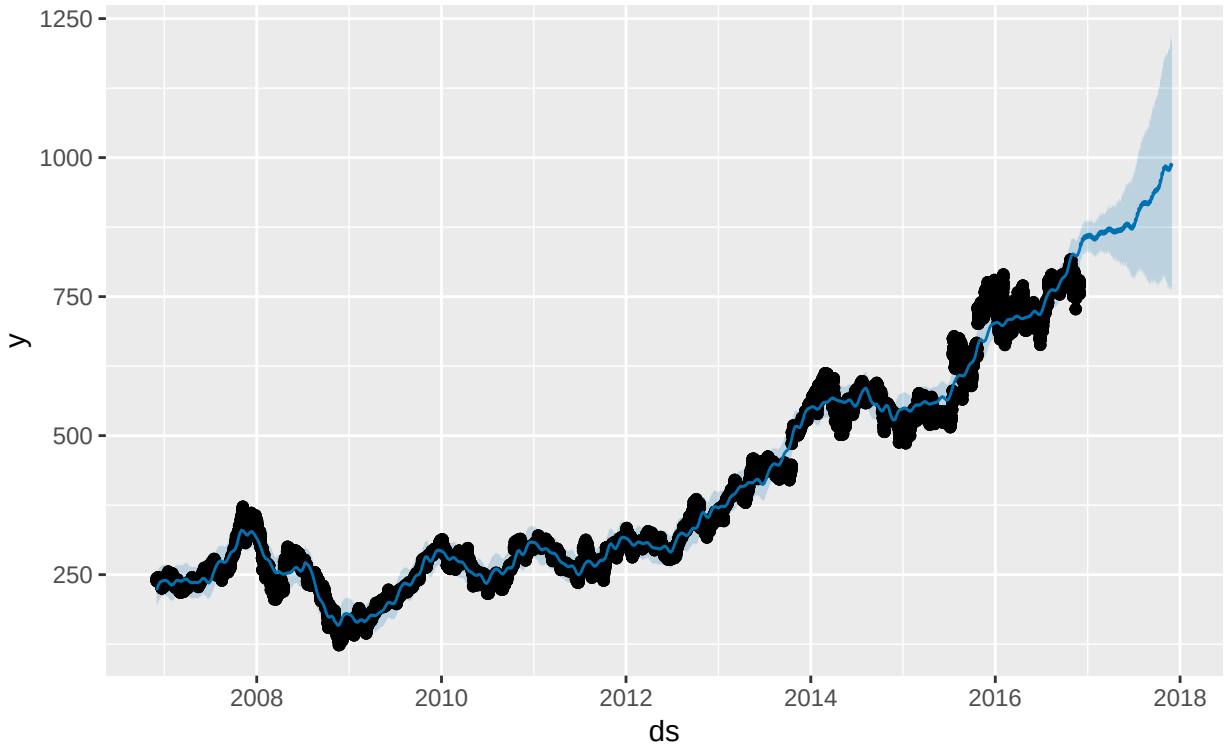
```
forecast <- predict(m, future)
tail(forecast[c('ds', 'yhat', 'yhat_lower', 'yhat_upper')])
```

```
##              ds     yhat yhat_lower yhat_upper
## 7911 2017-11-25 987.0975   766.6104   1217.732
## 7912 2017-11-26 988.3024   772.3918   1218.786
## 7913 2017-11-27 984.1644   759.3430   1207.559
## 7914 2017-11-28 985.6699   770.2200   1209.582
## 7915 2017-11-29 987.4357   761.8483   1210.964
```

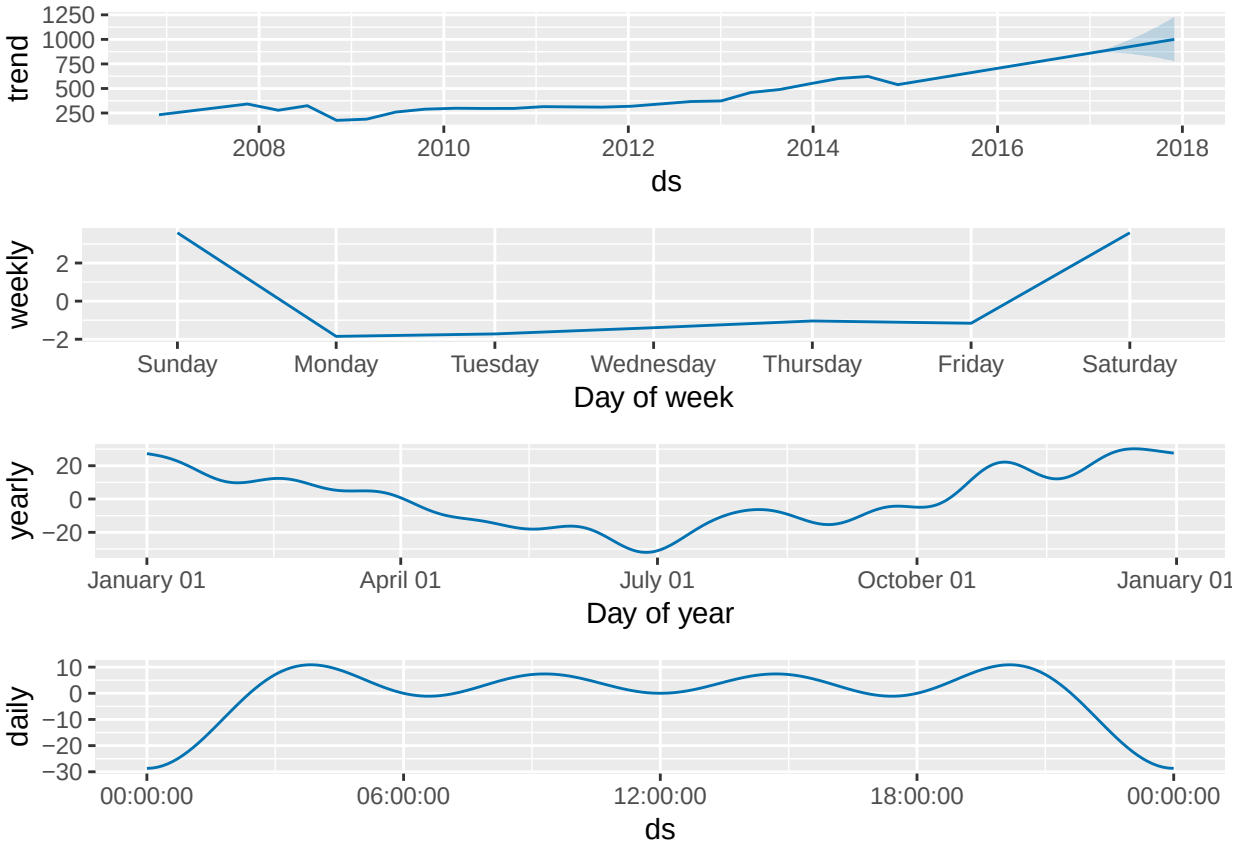
```
## 7916 2017-11-30 989.2710   759.6222   1214.559
```

Gráficos

```
plot(m, forecast)
```




```
prophet_plot_components(m, forecast)
```


trend
1250
1000
750
500
250
2008
2010
2012
2014
2016
2018
ds
weekly
2
0
−2
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Day of week
yearly
20
0
−20
January 01
April 01
July 01
October 01
January 01
Day of year
daily
10
0
−10
−20
−30
00:00:00
06:00:00
12:00:00
18:00:00
00:00:00
ds