



Comentário de Conjuntura Todo carnaval tem seu fim

Vítor Wilher, Mestre em Economia e Cientista de Dados

27 de fevereiro de 2020

Abstract

Nesse comentário, fazemos uma análise do comportamento da bolsa e do câmbio nos últimos dias.

1 Pacotes e atualizações

```
library(quantmod)
library(ggplot2)
library(scales)
library(forecast)
library(readr)
library(xts)
library(gridExtra)
library(tidyverse)
```

2 Coleta de Dados

```
## Pegar dados
getSymbols("BRL=X",src="yahoo")
```

```
[1] "BRL=X"
```

```
getSymbols("^BVSP",src="yahoo")
```

```
[1] "BVSP"
```

3 Tratamento de dados

```
df_ibov = tibble(time=as.Date(time(BVSP)),
                  ibov=BVSP$BVSP.Close) %>%
  mutate(dibov = (BVSP$BVSP.Close/lag(BVSP$BVSP.Close,1)-1)*100)

df_cambio = tibble(time=as.Date(time(`BRL=X`)),
                   cambio = `BRL=X`[,4]) %>%
  mutate(log_cambio = diff(log(cambio)))
```

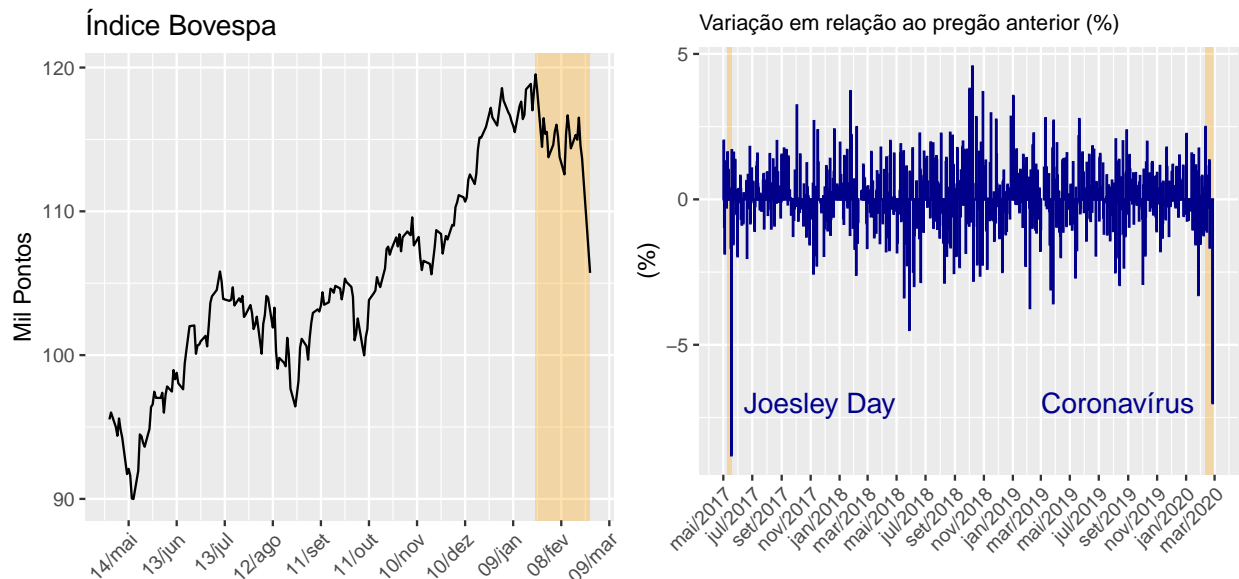
4 Visualização de dados

```
g1 = filter(df_ibov, time > '2019-05-01') %>%
  drop_na() %>%
  ggplot(aes(x=time, y=ibov/1000))+
  annotate("rect", fill = "orange", alpha = 0.3,
          xmin = as.Date('2020-01-23'),
          xmax = as.Date('2020-02-26'),
          ymin = -Inf, ymax = Inf)+
  geom_line()+
  scale_x_date(breaks = date_breaks("30 days"),
              labels = date_format("%d/%b"))+
  theme(axis.text.x=element_text(angle=45, hjust=1))+
  labs(x='', y='Mil Pontos',
       title='Índice Bovespa')

g2 = filter(df_ibov, time > '2017-05-01') %>%
  drop_na() %>%
  ggplot(aes(x=time, y=dibov))+
  annotate("rect", fill = "orange", alpha = 0.3,
          xmin = as.Date('2017-05-10'),
          xmax = as.Date('2017-05-19'),
          ymin = -Inf, ymax = Inf)+
  annotate('text', x=as.Date('2017-11-20'), y=-7,
          label='Joesley Day',
          colour='darkblue', size=4.5)+
  annotate("rect", fill = "orange", alpha = 0.3,
          xmin = as.Date('2020-02-10'),
          xmax = as.Date('2020-02-28'),
          ymin = -Inf, ymax = Inf)+
  annotate('text', x=as.Date('2019-08-10'), y=-7,
          label='Coronavírus',
          colour='darkblue', size=4.5)+
  geom_bar(stat='identity', colour='darkblue', fill='darkblue')+
  scale_x_date(breaks = date_breaks("2 month"),
              labels = date_format("%b/%Y"))+
  theme(axis.text.x=element_text(angle=45, hjust=1),
        plot.title = element_text(size=10))+
  labs(x='', y='(%)',
```

```
title='Variação em relação ao pregão anterior (%)',
caption='Fonte: analisemacro.com.br')
```

```
grid.arrange(g1, g2, ncol=2, nrow=1)
```

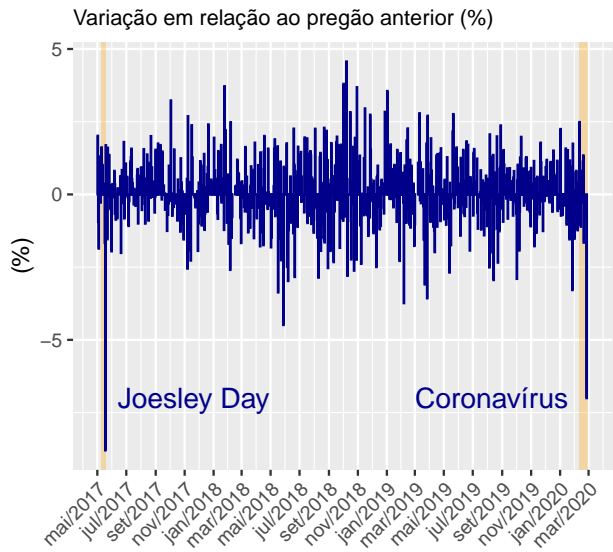
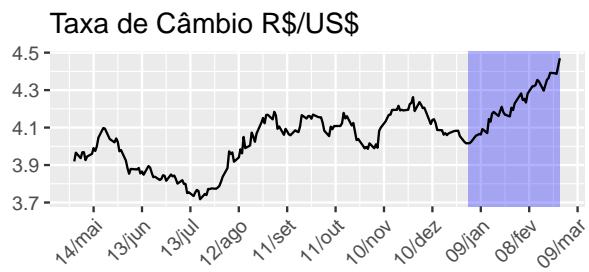
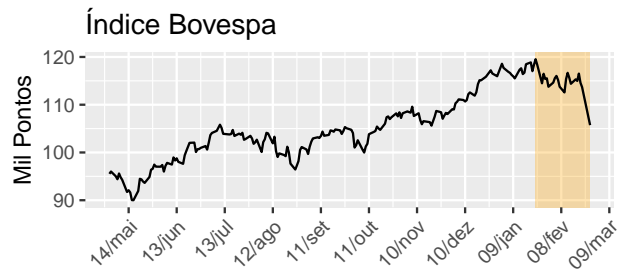


Fonte: analisemacro.com.br

5 Visualização de dados

```
g3 = filter(df_cambio, time > '2019-05-01') %>%
  drop_na() %>%
  ggplot(aes(x=time, y=cambio))+
    annotate("rect", fill = "blue", alpha = 0.3,
           xmin = as.Date('2020-01-01'),
           xmax = as.Date('2020-02-27'),
           ymin = -Inf, ymax = Inf)+
    geom_line()+
    scale_x_date(breaks = date_breaks("30 days"),
                 labels = date_format("%d/%b"))+
    theme(axis.text.x=element_text(angle=45, hjust=1))+
    labs(x='', y='',
         title='Taxa de Câmbio R$/US$')

grid.arrange(g1, g2, g3, ncol=2, nrow=2,
              layout_matrix= rbind(c(1,2), c(3,2)))
```



Fonte: analisemacro.com.br