# Bread Starter

May 30, 2020

## 1 Lecture 3

### 1.1 Bread Prices

```
In [1]: price <- c(5.8, 6.1, 5.4, 6.2, 5.0, 4.6, 5.8, 5.1, 5.3, 5.1, 4.8, 5.3, 6.8, 9.0, 8.6,
        9.0, 7.4, 6.4, 4.8, 3.9, 3.9, 5.6, 5.7, 7.5, 7.3, 7.4, 7.5, 9.7, 6.1, 6.0, 5.7, 5.0,
        4.2, 4.6, 5.9, 5.4, 5.4, 5.4, 5.6, 7.6, 7.4, 5.4, 5.1, 6.9, 7.5, 5.9, 6.2, 5.6, 5.8,
        5.6, 6.6, 4.8, 5.2, 4.5, 4.4, 5.3, 5.0, 6.4, 7.8, 8.5, 5.6, 7.1, 7.1, 8.0, 7.3, 5.7,
        4.8, 4.3, 4.4, 5.7, 4.7, 4.1, 4.1, 4.7, 7.0, 8.7, 6.2, 5.9, 5.4, 6.3, 4.9, 5.5, 5.4,
        4.7, 4.1, 4.6, 4.8, 4.5, 4.7, 4.8, 5.4, 6.0, 5.1, 6.5, 6.2, 4.6, 4.5, 4.0, 4.1, 4.7,
        5.1, 5.2, 5.3, 4.8, 5.0, 6.2, 6.4, 4.7, 4.1, 3.9, 4.0, 4.9, 4.9, 4.8, 5.0, 4.9, 4.9,
        5.4, 5.6, 5.0, 4.5, 5.0, 7.2, 6.1)
```

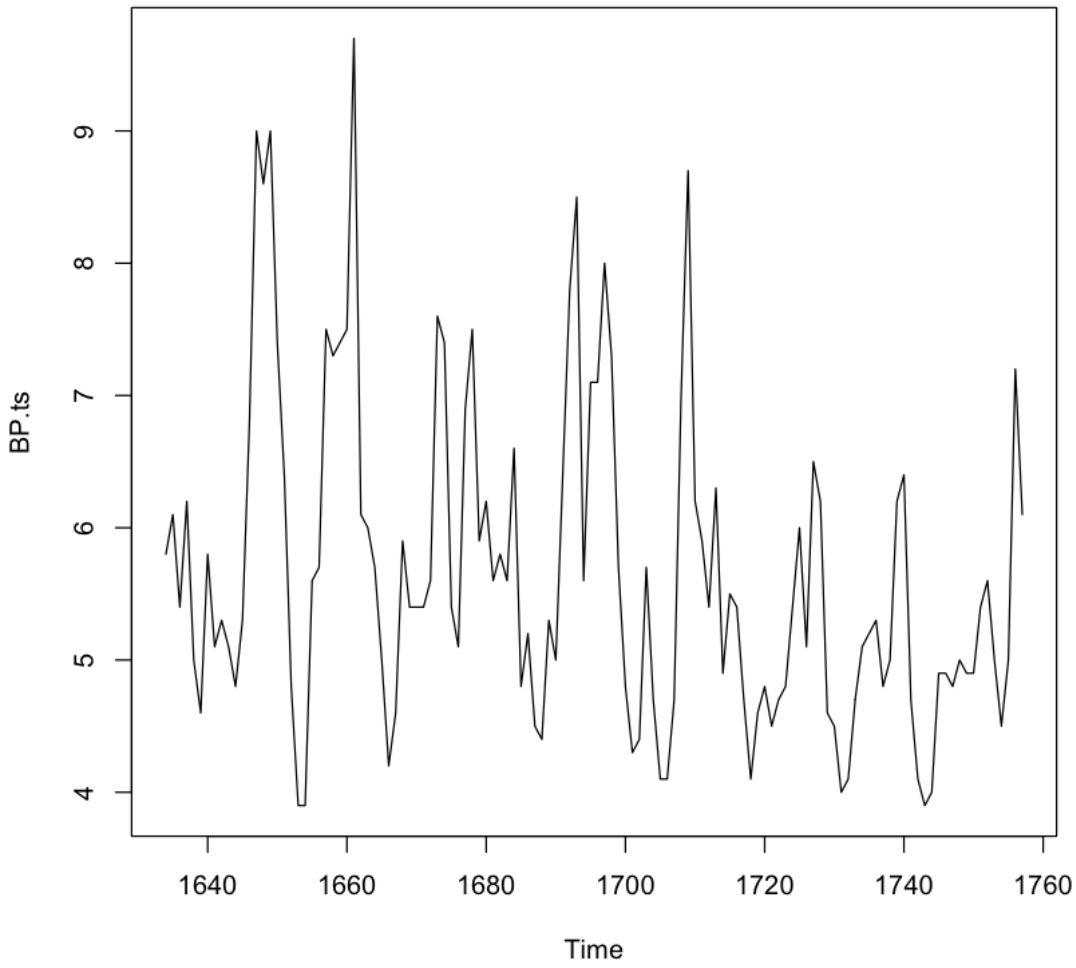
```
In [4]: # use time series function to transform it into time series format (auto indexes the t
        BP.ts <- ts(price, start=1634, frequency = 1)
```

```
In [5]: # quick summary
        summary(BP.ts)
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  3.900   4.800   5.400   5.652   6.200   9.700
```

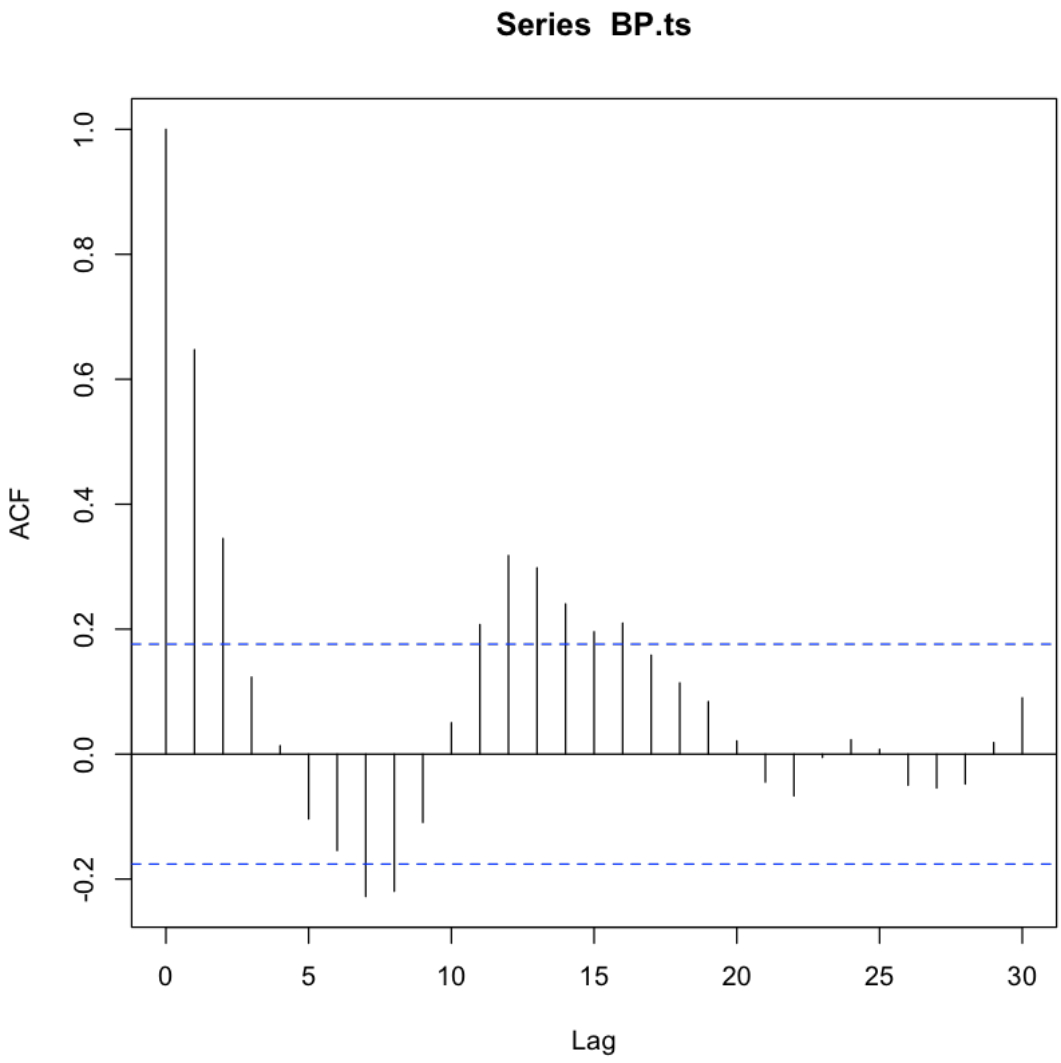
### 1.2 Timeseries Plot

```
In [6]: plot(BP.ts)
```



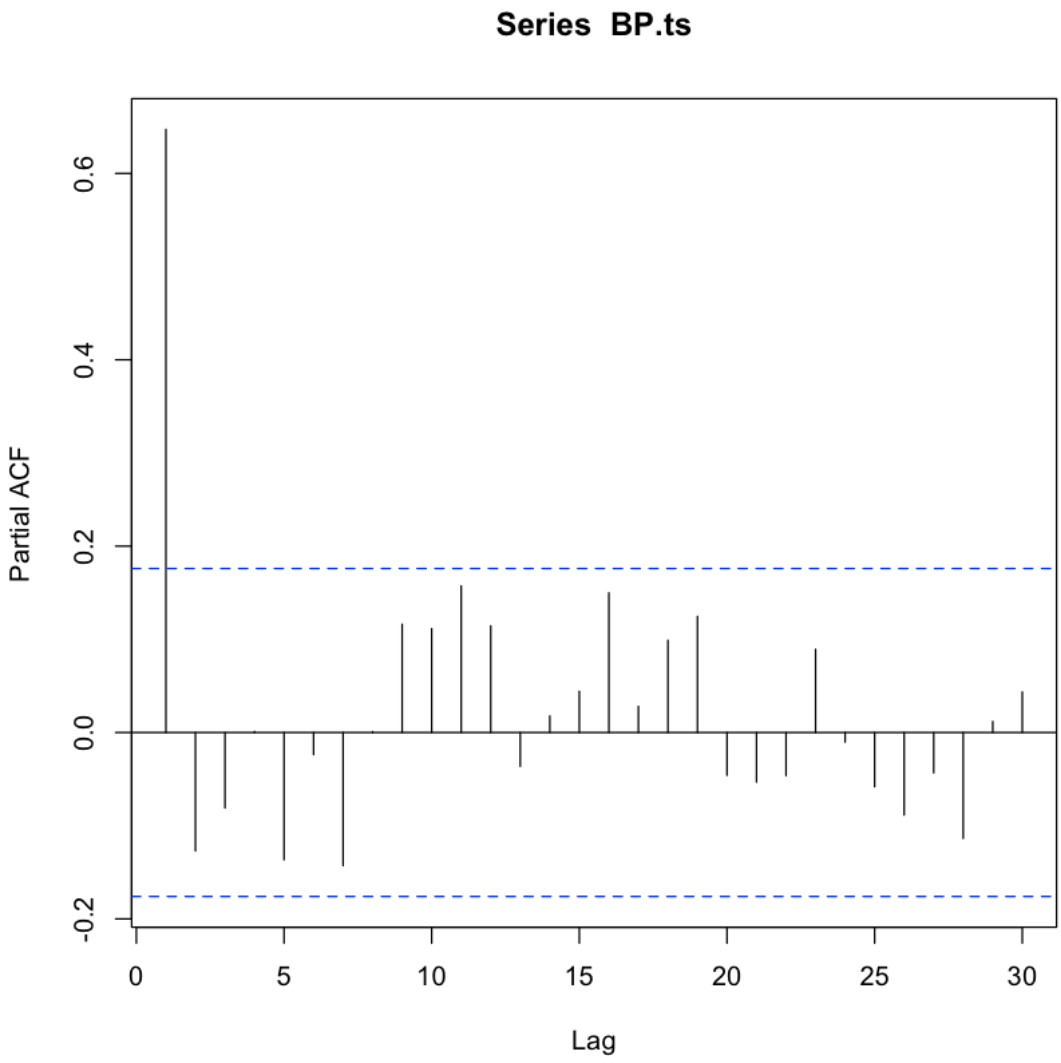

### 1.3 Sample ACF Plot

```
In [8]: acf(BP.ts, lag=30)
```




### 1.4 Sample PACF plot

```
In [10]: pacf(BP.ts, lag=30)
```




In [ ]: