Tutorial 5

Research Methods for Politcal Science A

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07. Nov 2020

Outline

1. Assignment One
2. Exercise on Describing Data
3. Group Projects

Exercise: Describe Data

```r
# Loading Data
esm <- read.csv("esm.csv")
```

For DAX:

1. What type of variables are presented?

It's a continous variabls and is time-series data

Exercise: Describe Data

2. What variables would you calculate to describe this data? Why? Calculate them?

```
summary(esm$DAX)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    1402    1744    2141    2531    2722    6186
```

```
mean(esm$DAX); median(esm$DAX)
```

```
## [1] 2530.657
```

```
## [1] 2140.565
```

```
sd(esm$DAX); var(esm$DAX)
```

```
## [1] 1084.793
```

```
## [1] 1176775
```

Exercise: Describe Data

```
quantile(esm$DAX, probs = c(.25,.75))
```

```
##      25%      75%
## 1744.102 2722.367
```

```
IQR <- quantile(esm$DAX, probs = .75) -
  quantile(esm$DAX, probs = .25)
IQR
```

```
##     75%
## 978.265
```

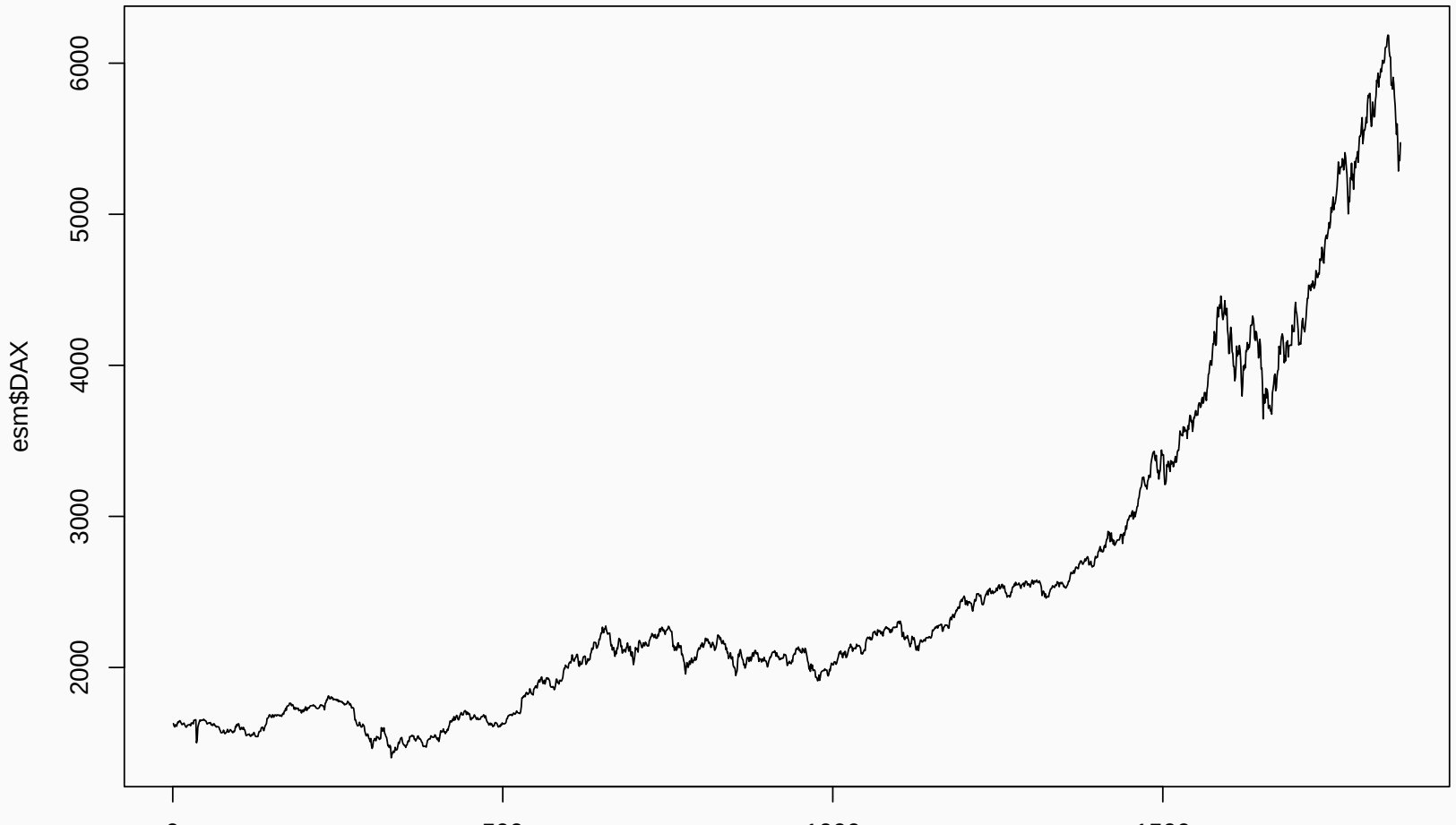
```
IQR(esm$DAX)
```

```
## [1] 978.265
```

Exercise: Describe Data

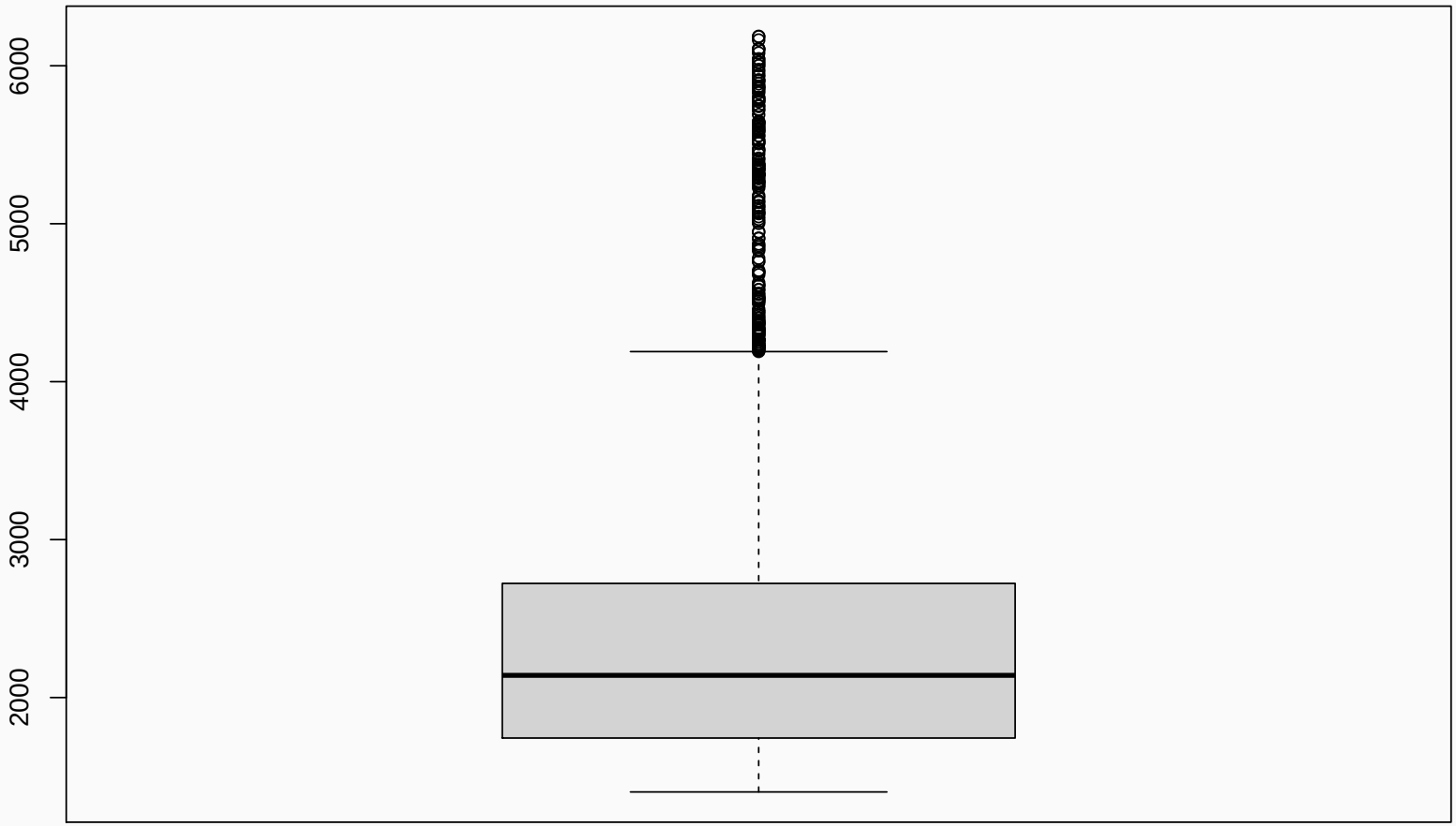
4. How would you plot this data?

```
plot(esm$DAX, type = "l") # line plot
```



Exercise: Describe Data

```r
boxplot(esm$DAX) # boxplot
```



Exercise: Describe Data

This shows us the distribution of the indivudal values. A density plot has the advantages that R does not construct bins as in the histogram.

Although the boxplot wouldn't be the go to graph in this case, it is useful here as it shows us the large number of outliers.

Group Projects:

How are your Group Projects coming?

Has everybody selected on a Research Question?

Any Questions on your research questions