Nutzung von GeoDaten in den Sozialwissenschaften - Lösung Eurostat Indikatoren

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Download der Indikatoren

`http://ec.europa.eu/eurostat/web/euro-indicators/peeis`

- Den Datensatz ohne Fußnoten und Beschreibung auswählen.
- Das Format xlsx wählen und die ersten beiden und letzten sechs Zeilen in Excel löschen.
- Am einfachsten ist es den Datensatz als csv abzuspeichern.

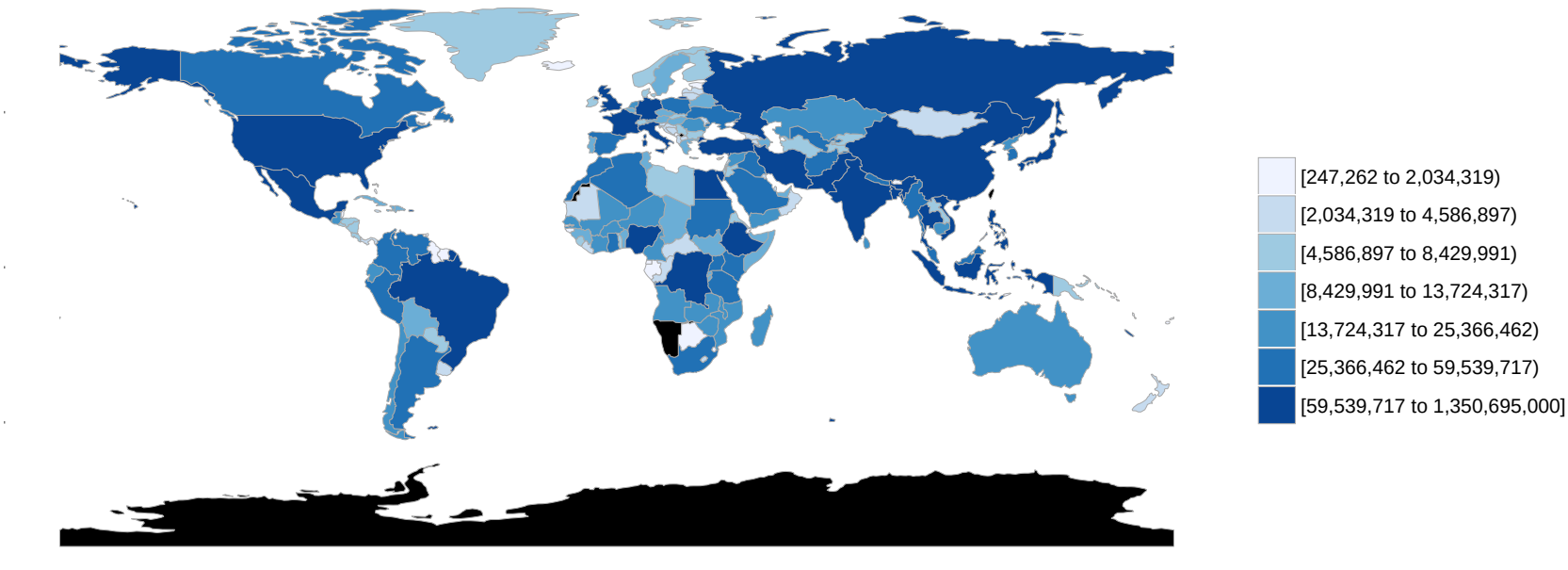
```
dat <- read.csv("data/Inflation.csv",sep=";")
```

Daten bearbeiten

```
dat$X2015M04 <- gsub(",",".",dat$X2015M04)
dat$X2015M04 <- as.numeric(dat$X2015M04)
```

Eine Weltkarte

```
library(choroplethr)
data(df_pop_country)
country_choropleth(df_pop_country)
```



Die Region im Karten Datensatz

```
library(choroplethrMaps)
data(country.map)
```

region	long	lat	subregion	continent
afghanistan	61.21082	35.65007	Southern Asia	Asia
afghanistan	62.23065	35.27066	Southern Asia	Asia
afghanistan	62.98466	35.40404	Southern Asia	Asia
afghanistan	63.19354	35.85717	Southern Asia	Asia

Daten bearbeiten

```
ind_euro <- agrep("euro",dat$geo)
dat <- dat[-ind_euro,]

ind_eu <- which(as.character(dat$geo)%in%
c("EU (28 countries)","United States","Malta"))

dat <- dat[-ind_eu,]

geo_names <- as.character(dat$geo)
```

Die Daten matchen

```
geo_names1 <- substr(geo_names,1,1)
geo_names2 <- substr(geo_names,2,nchar(geo_names))

geo_names1 <- tolower(geo_names1)

geo_n <- paste(geo_names1,geo_names2,sep="")

ind <- match(geo_n,country.map$region)
```

Welche Länder fehlen noch?

```
geo_n[is.na(ind)]
```

```
## [1] "czech Republic" "united Kingdom"
```

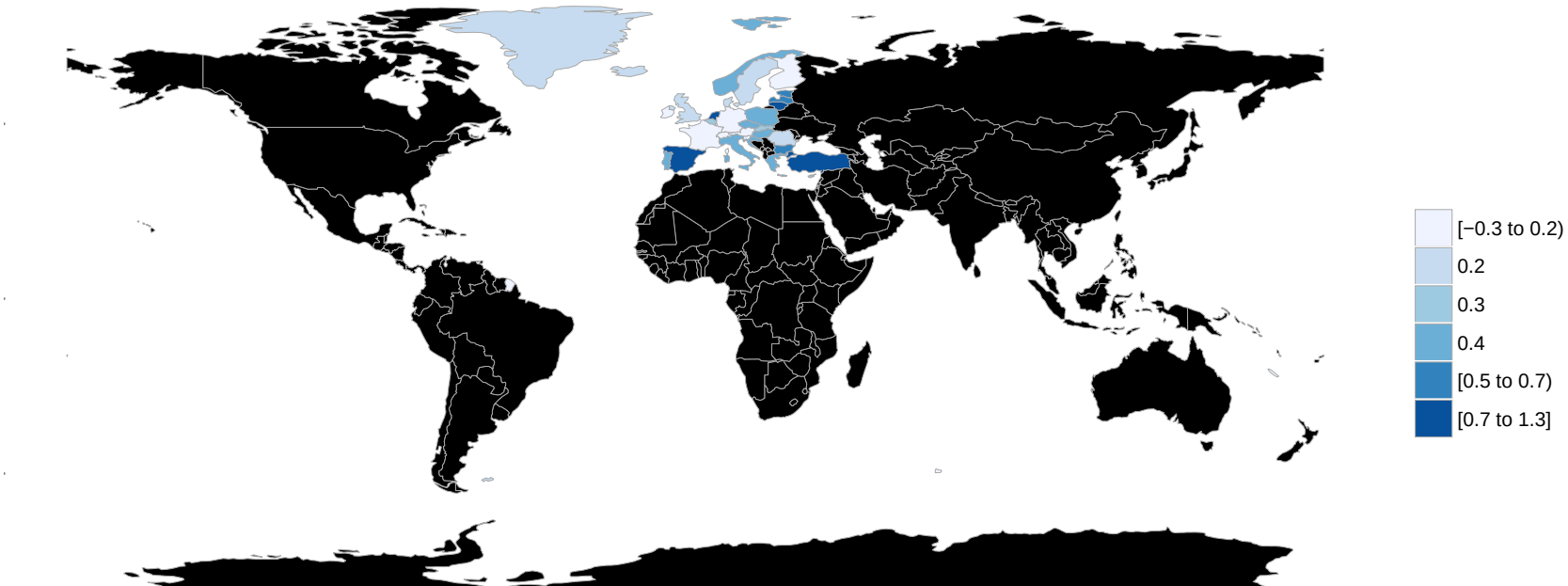
```
geo_n[geo_n=="czech Republic"] <- "czech republic"
geo_n[geo_n=="united Kingdom"] <- "united kingdom"
```

Karte erzeugen

Neuen Datensatz erzeugen

```
df_inflation <- data.frame(region=geo_n,
                           value=dat$X2015M04)
```

```
country_choropleth(df_inflation)
```



Karte mit Zoom erzeugen

```
country_choropleth(df_inflation,
        zoom=df_inflation$region)
```

Noch besser ran zoomen

http://stackoverflow.com/questions/30076553/r-choropleth-maps-choroplethr-package

```
library(ggmap)
gg <- country_choropleth(df_inflation,
                         legend="%",num_colors=1,
                         zoom=df_inflation$region)

gg <- gg + xlim(-31.266001, 39.869301)
gg <- gg + ylim(27.636311, 81.008797)
gg <- gg + coord_map("lambert",
lat0=27.636311, lat1=81.008797)
```

Finale Version der Karte

```
gg
```