

# Results on January 16th

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16 January, 2024

## 0.1 Introduction

This report presents the latest results of our work on the project. We will present the results of our analysis on the data we have been given, mostly through visualizations.

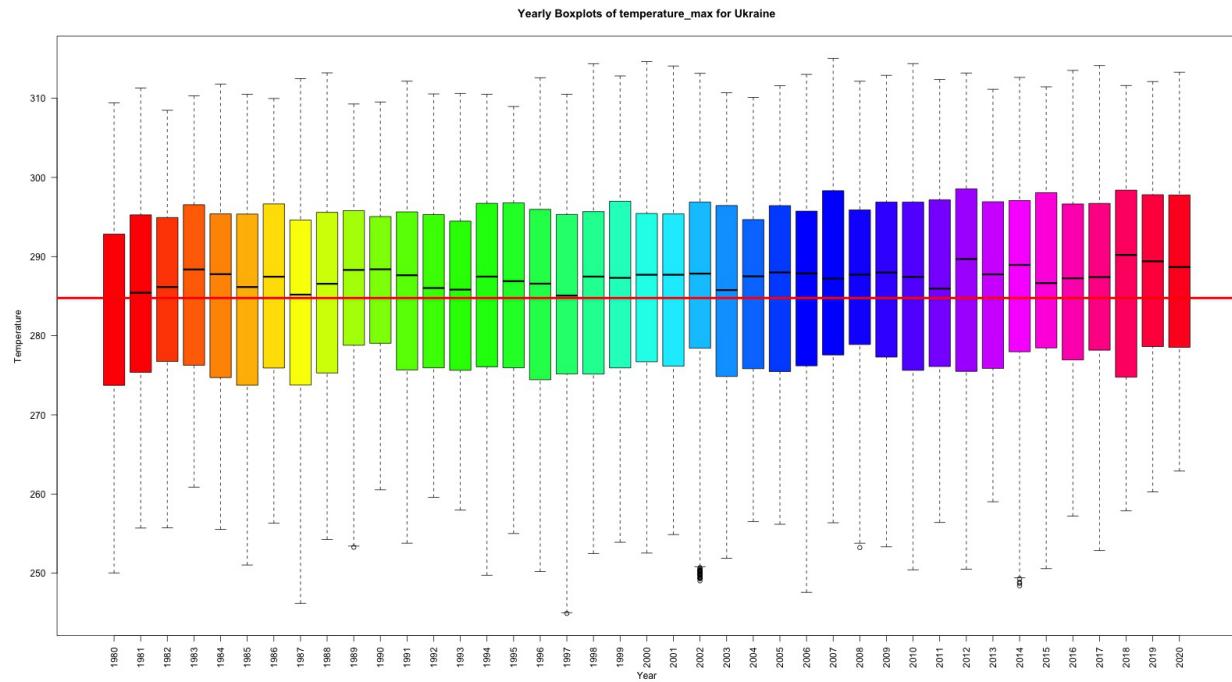
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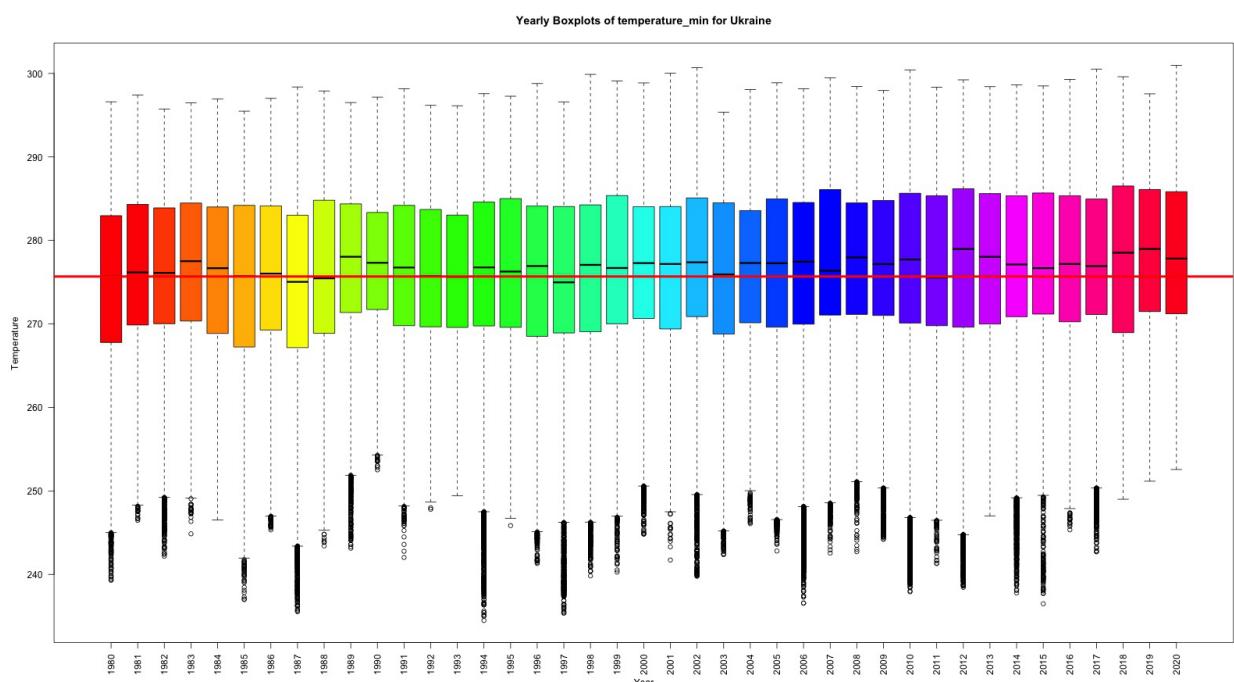
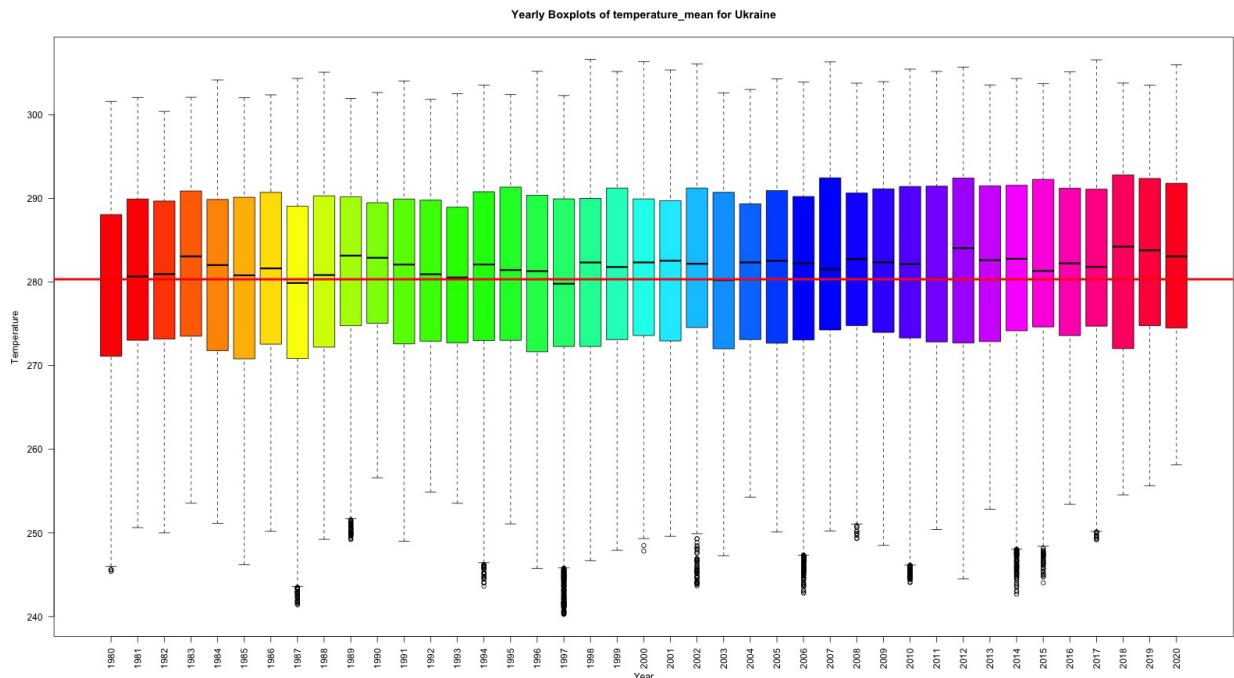
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## 0.2 Exploratory Data Analysis

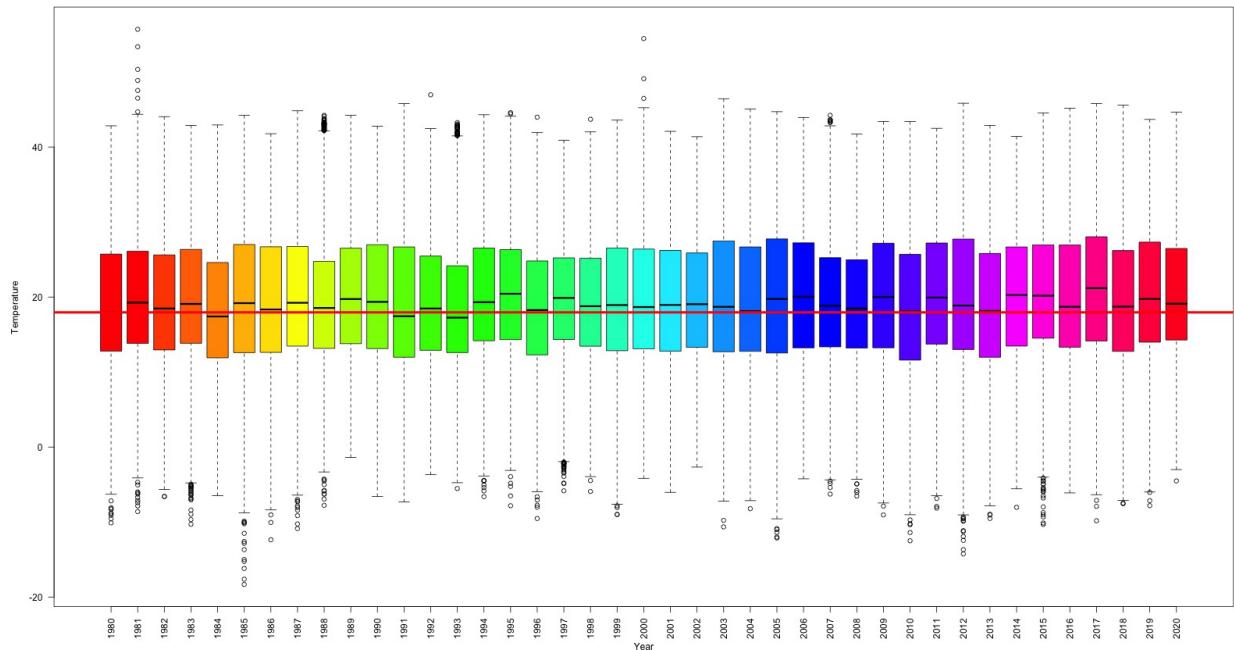
### 0.2.1 Temperature Data Analysis

We have created yearly boxplots for each country and each temperature variable. The boxplots are presented below. The red line corresponds to the median temperature of the year 1990.

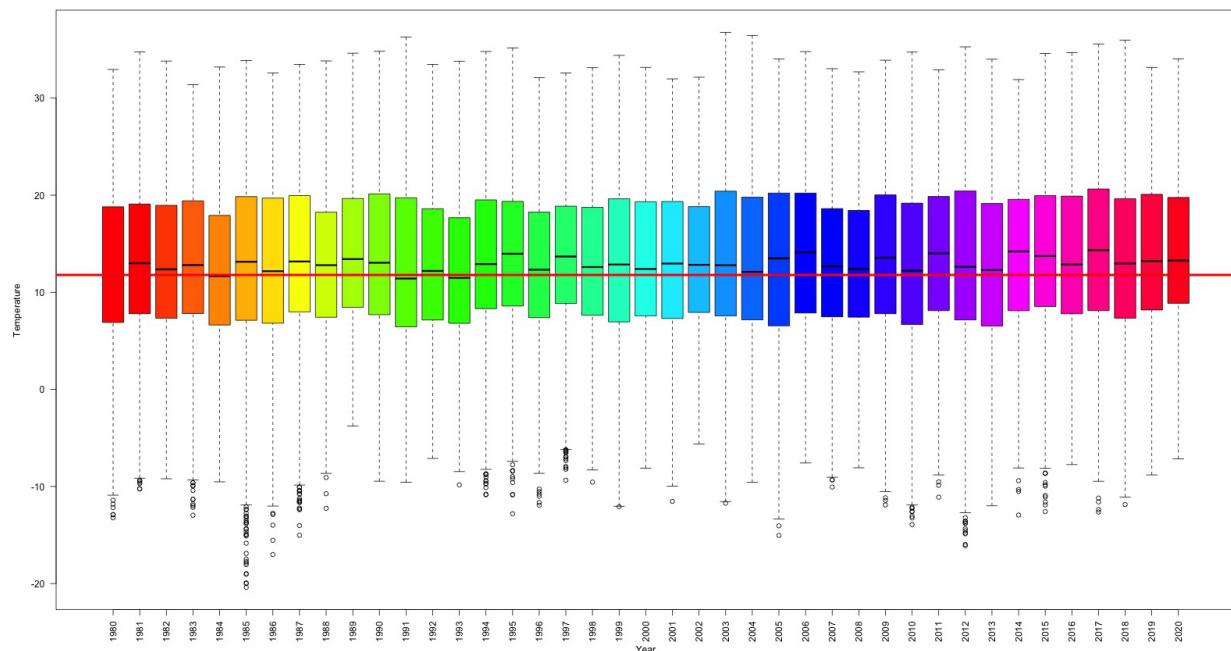




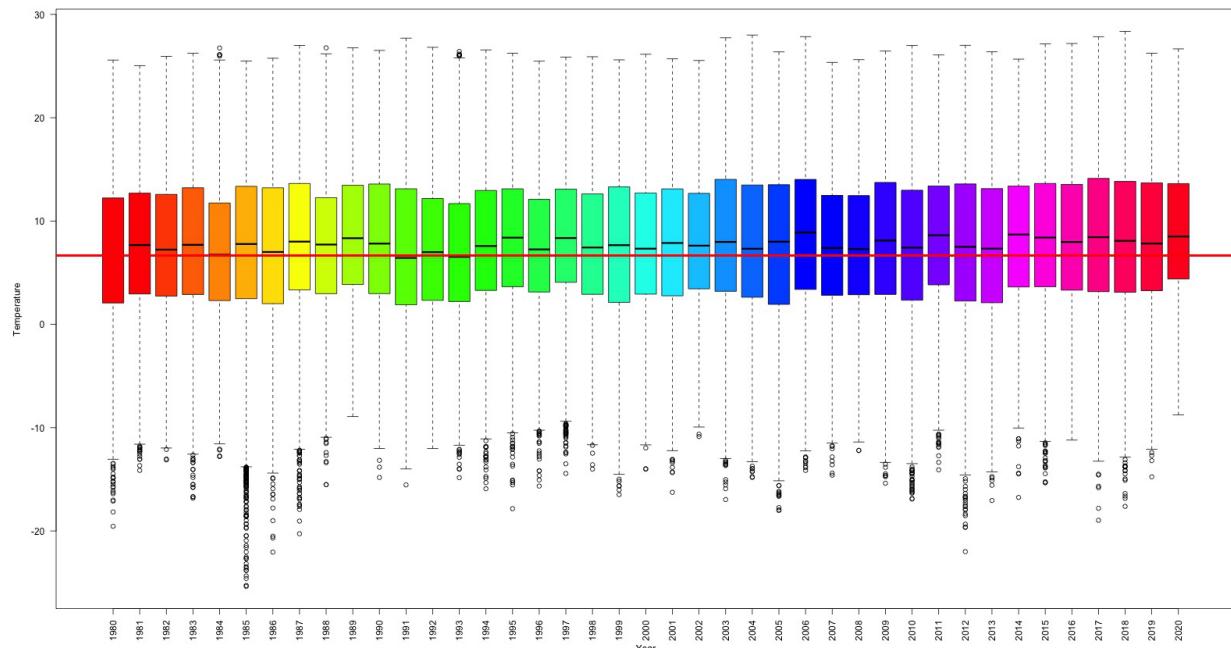
Yearly Boxplots of temperature\_max for Spain

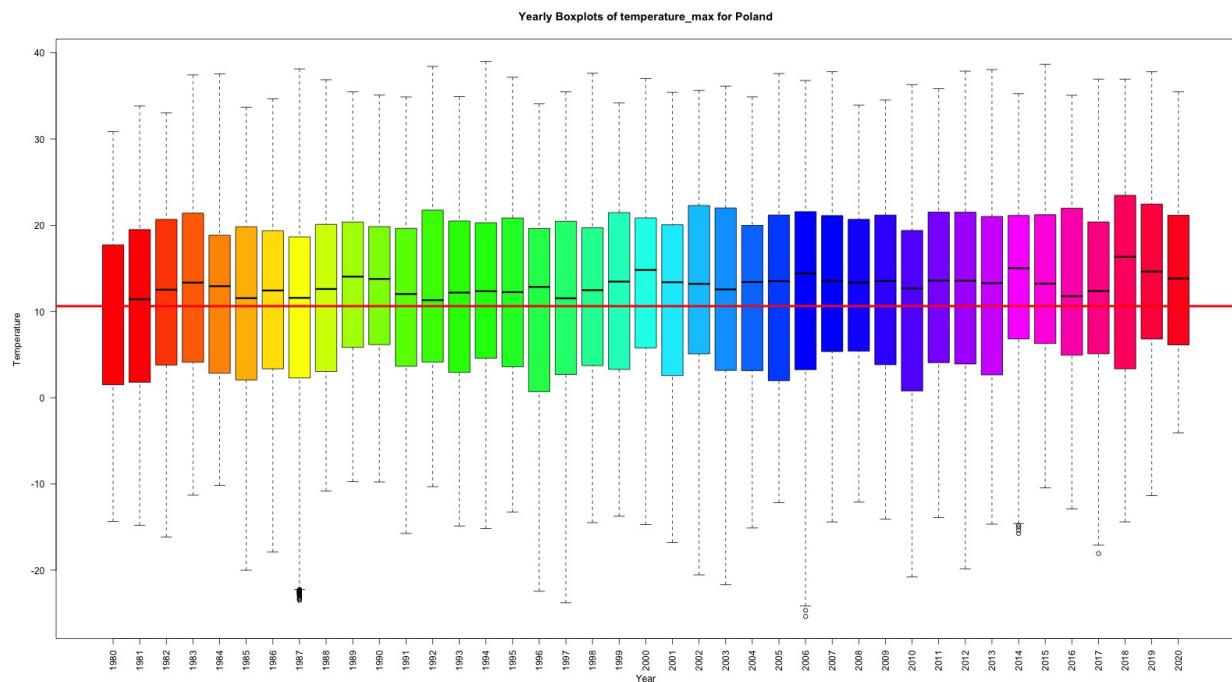


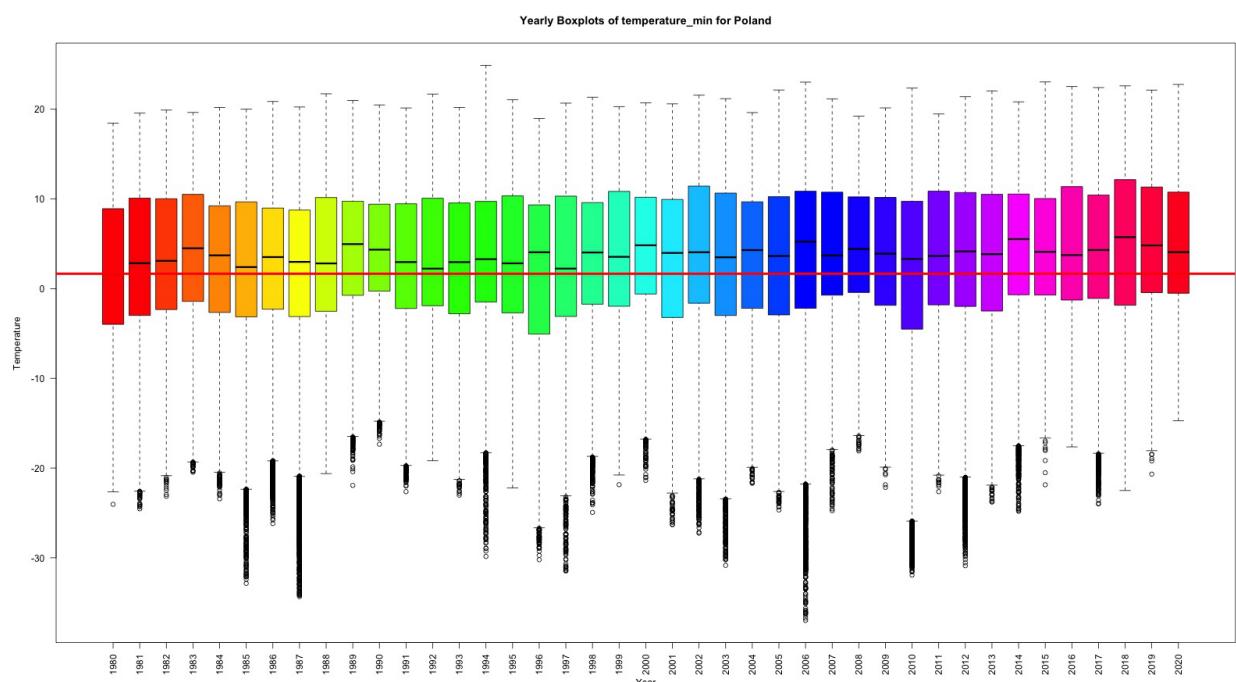
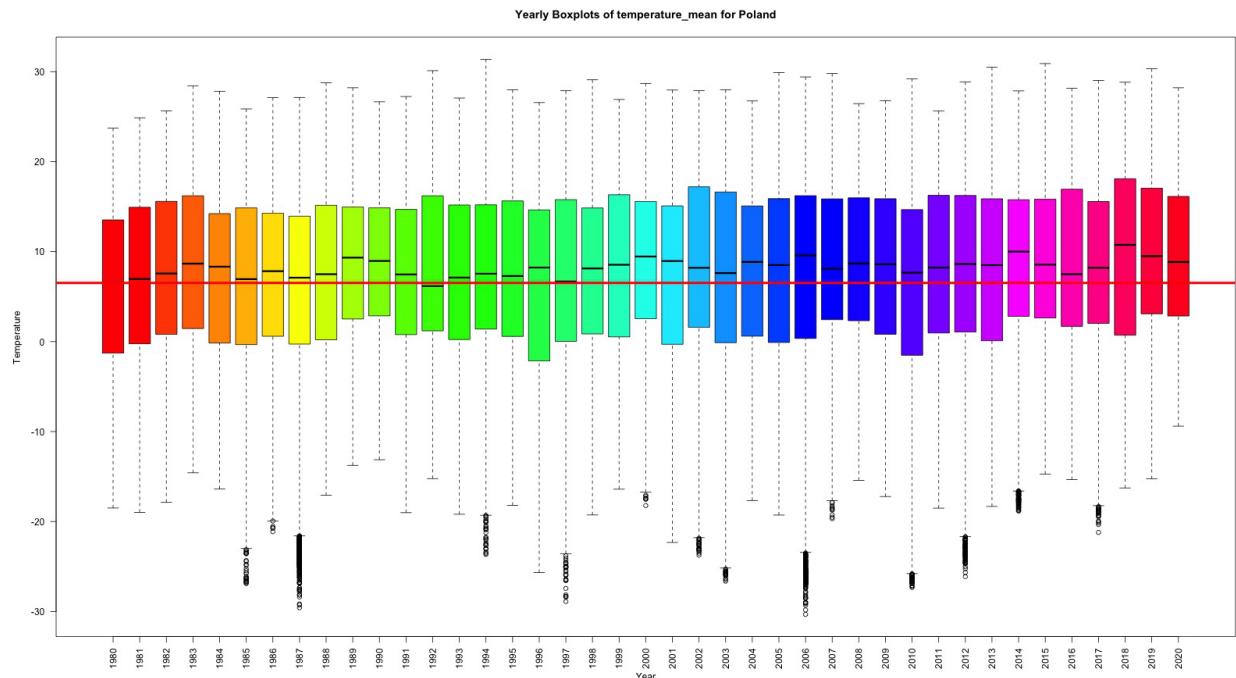
Yearly Boxplots of temperature\_mean for Spain



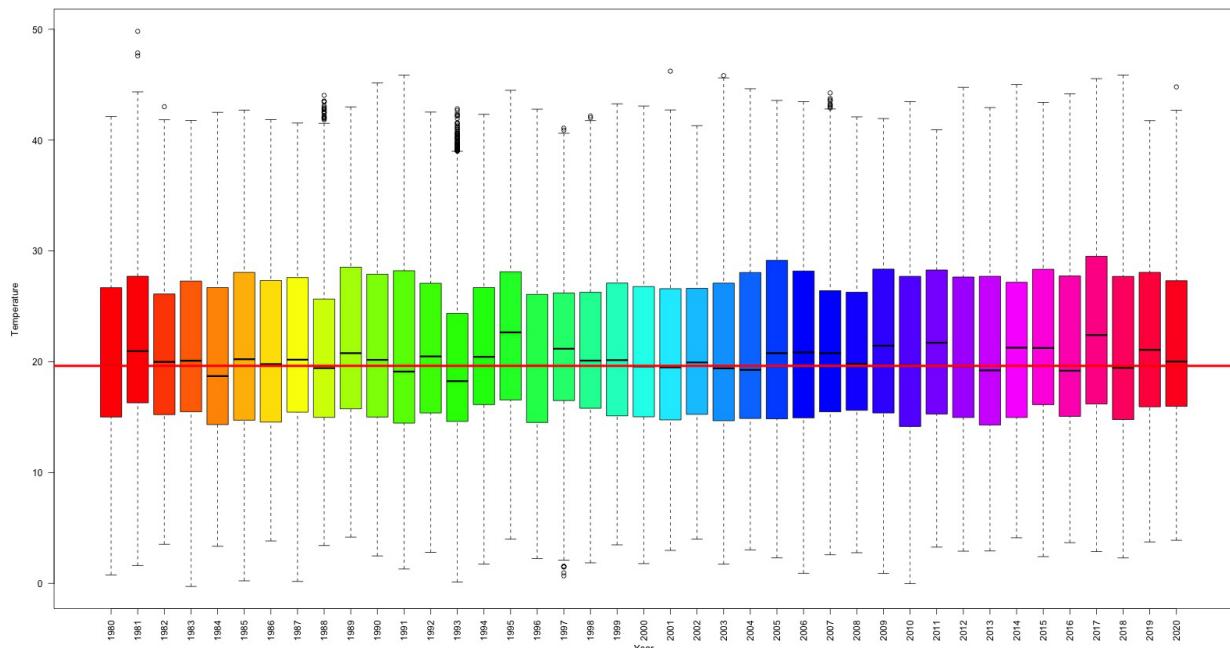
Yearly Boxplots of temperature\_min for Spain



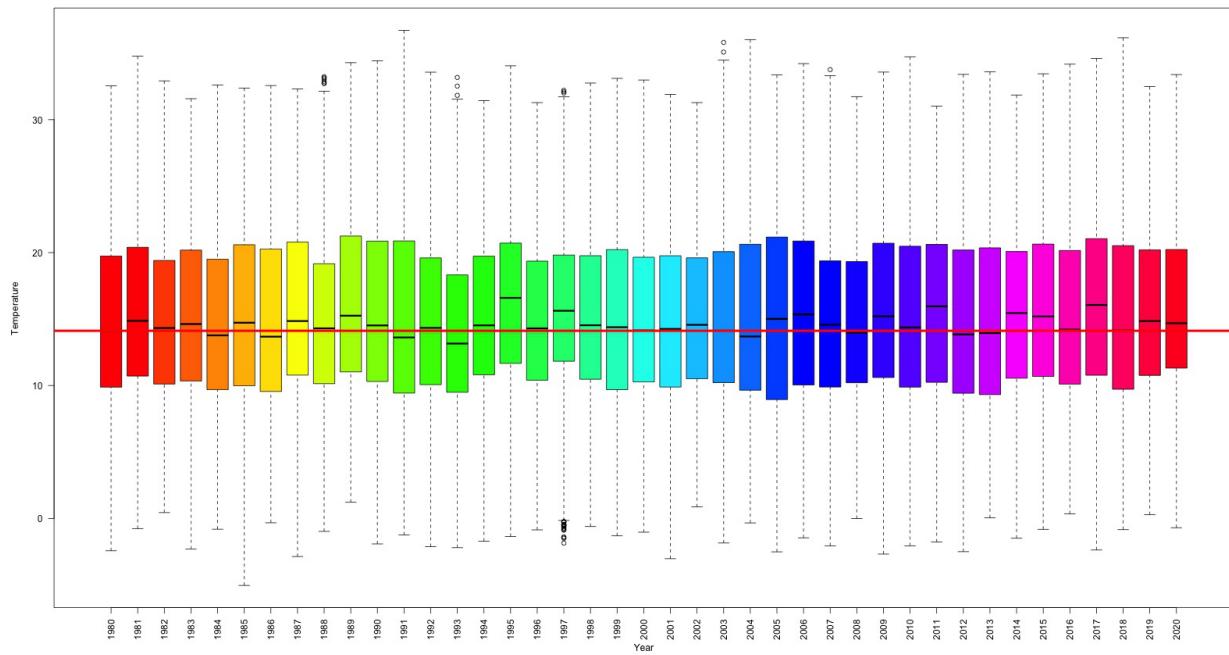




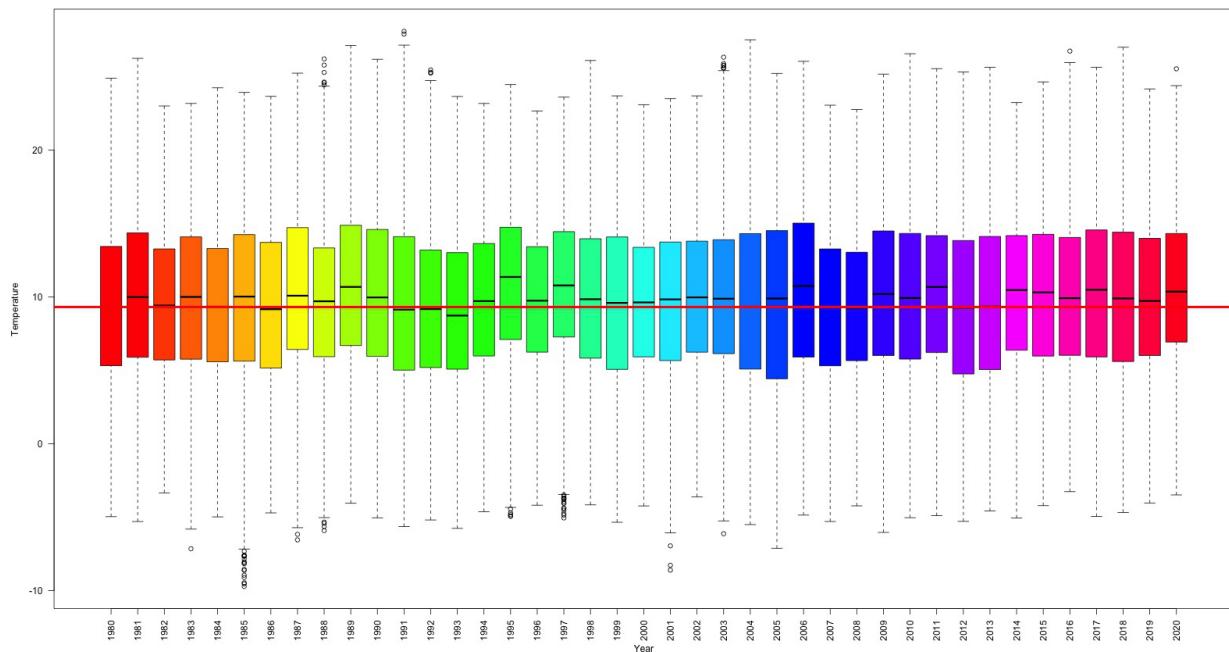
Yearly Boxplots of temperature\_max for Portugal



Yearly Boxplots of temperature\_mean for Portugal



Yearly Boxplots of temperature\_min for Portugal



## 0.2.2 Geospatial Data Analysis

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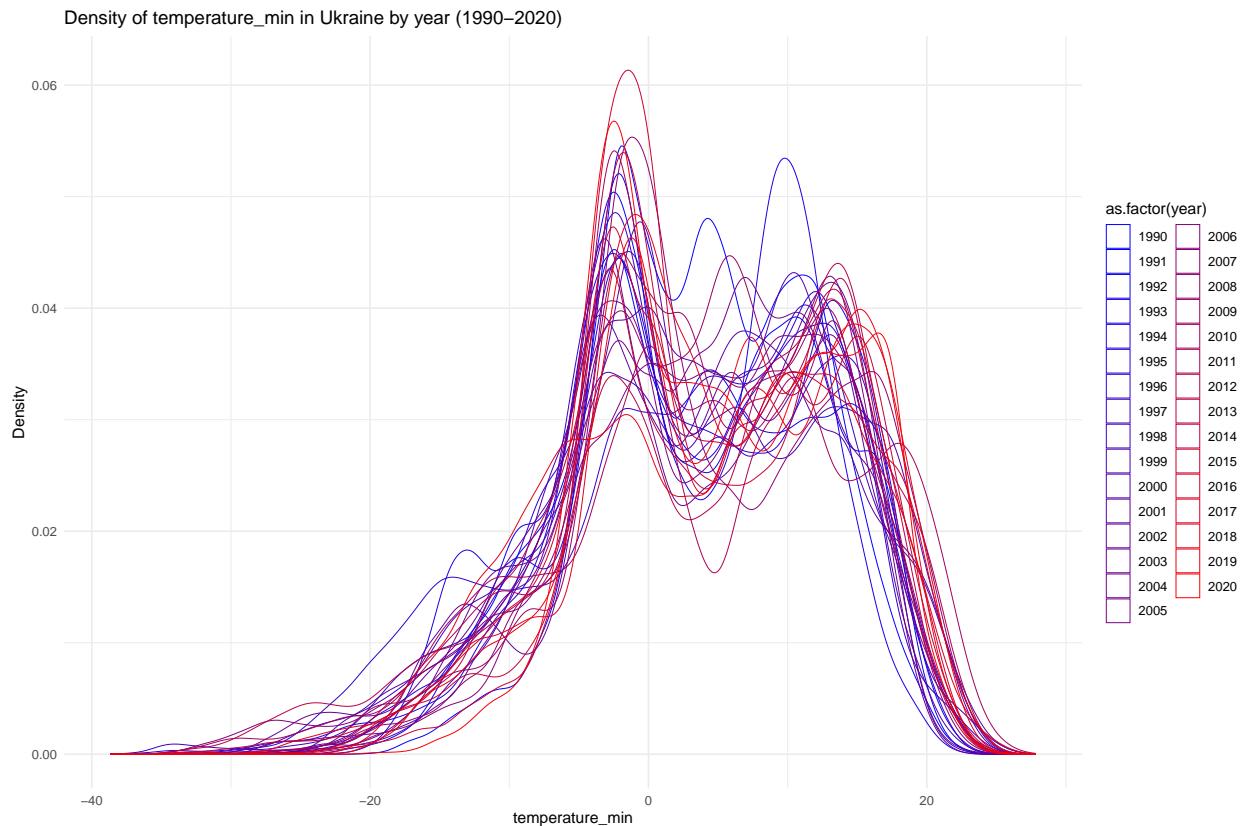
## 0.3 Statistical Data Analysis

### 0.3.1 Density Histograms

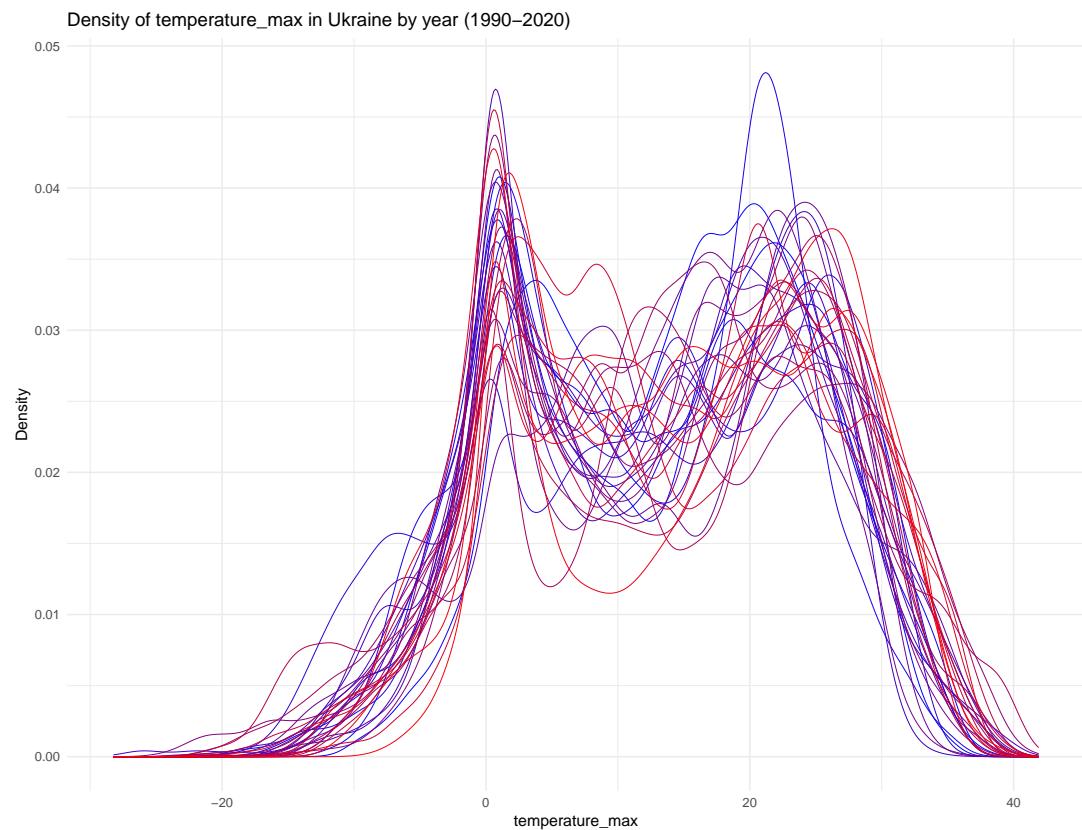
These plots shows the temperature densities for each year, each variable and each country.

#### 0.3.1.1 Ukraine

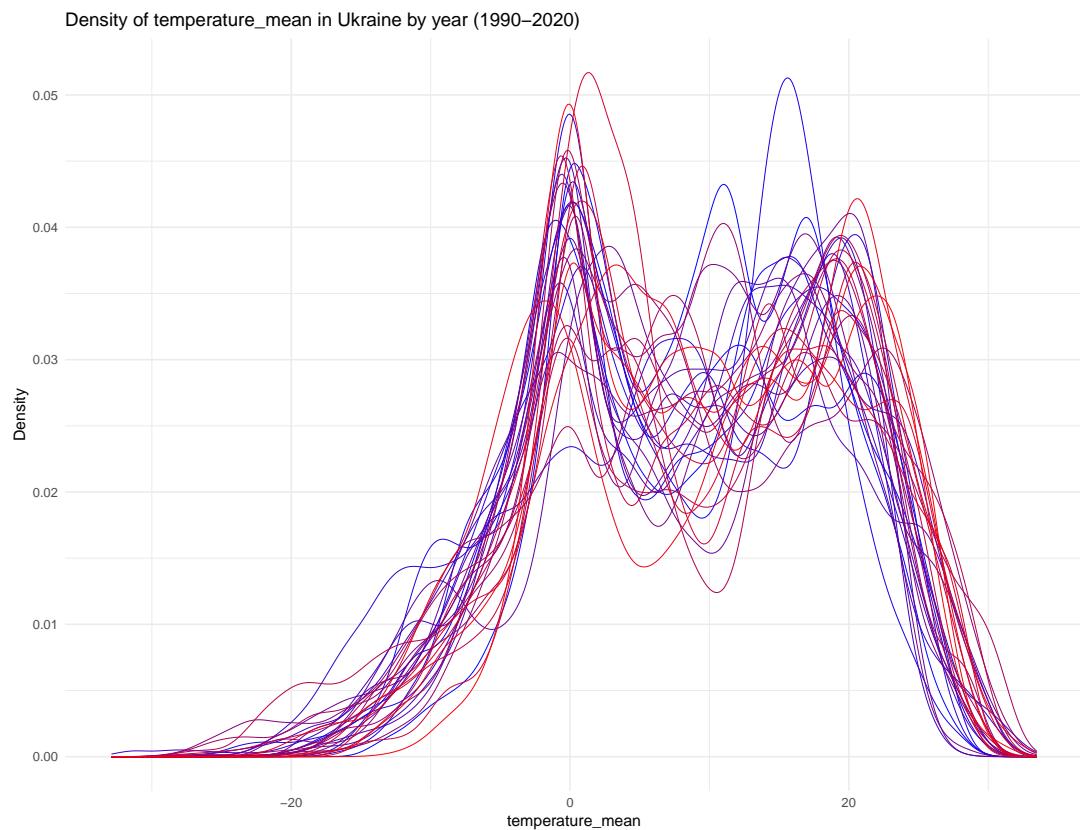
##### 0.3.1.1.1 Min



##### 0.3.1.1.2 Max

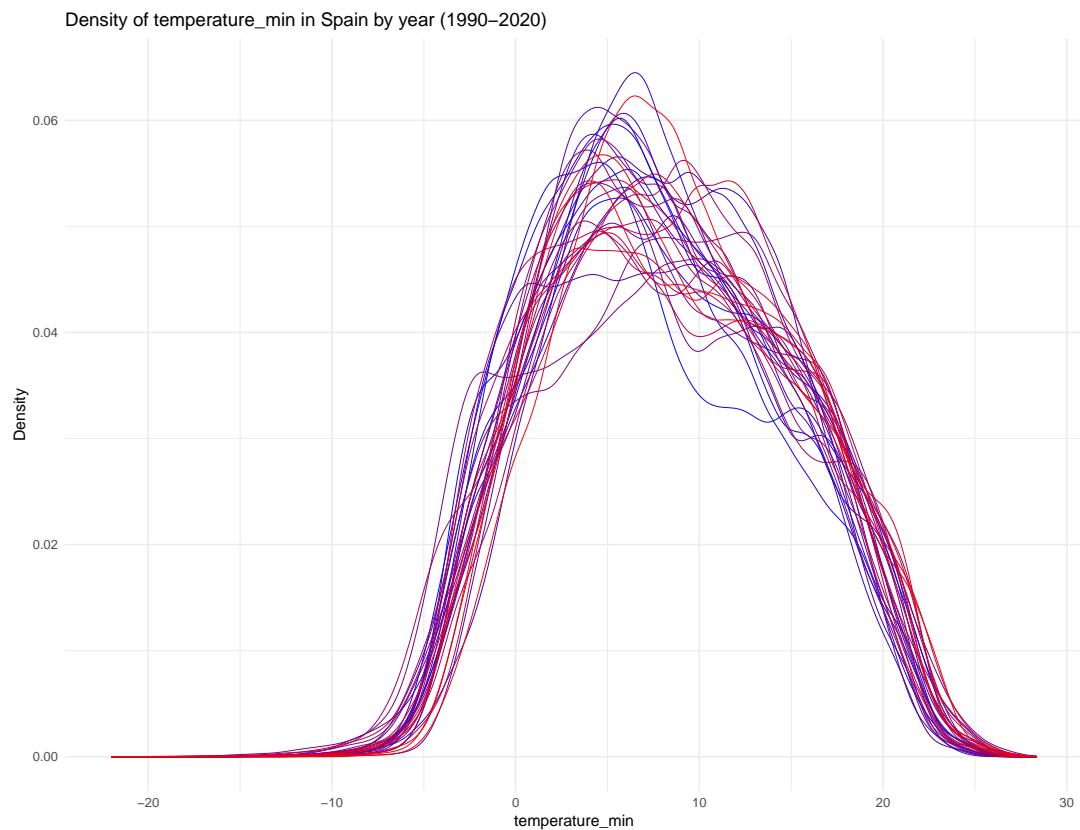


### 0.3.1.1.3 Mean



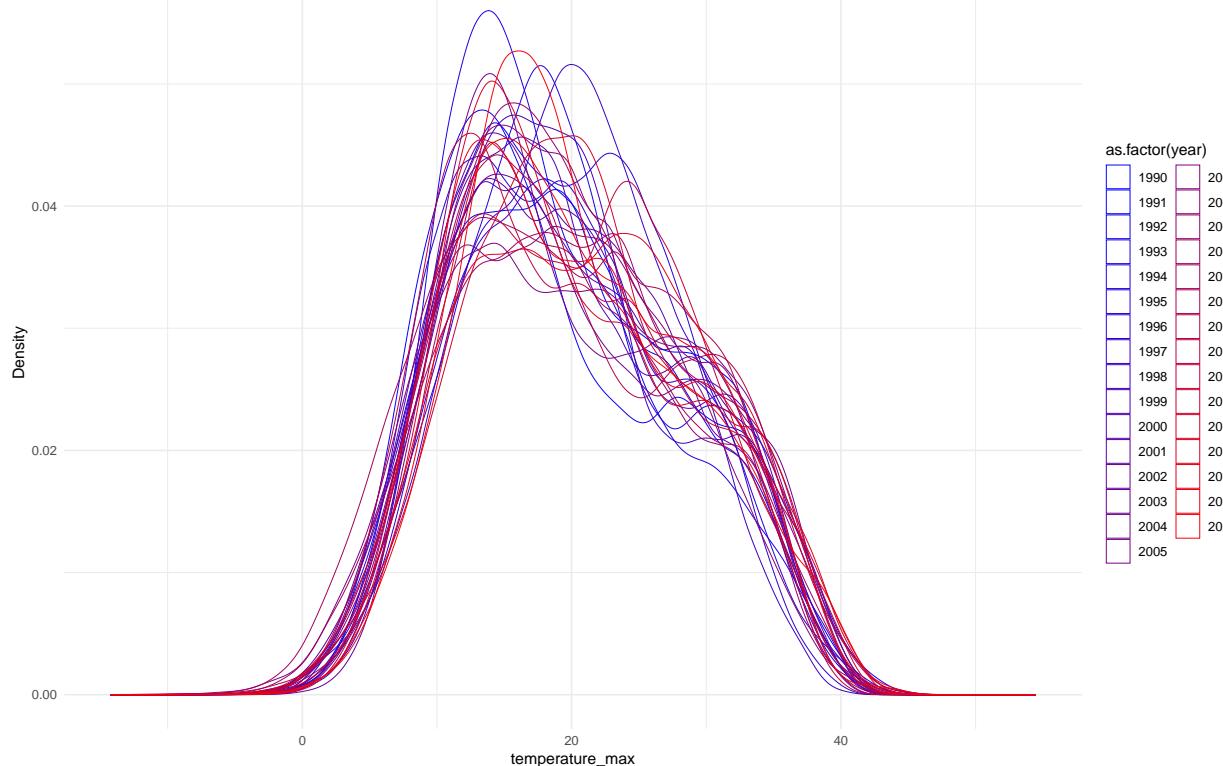
### 0.3.1.2 Spain

#### 0.3.1.2.1 Min

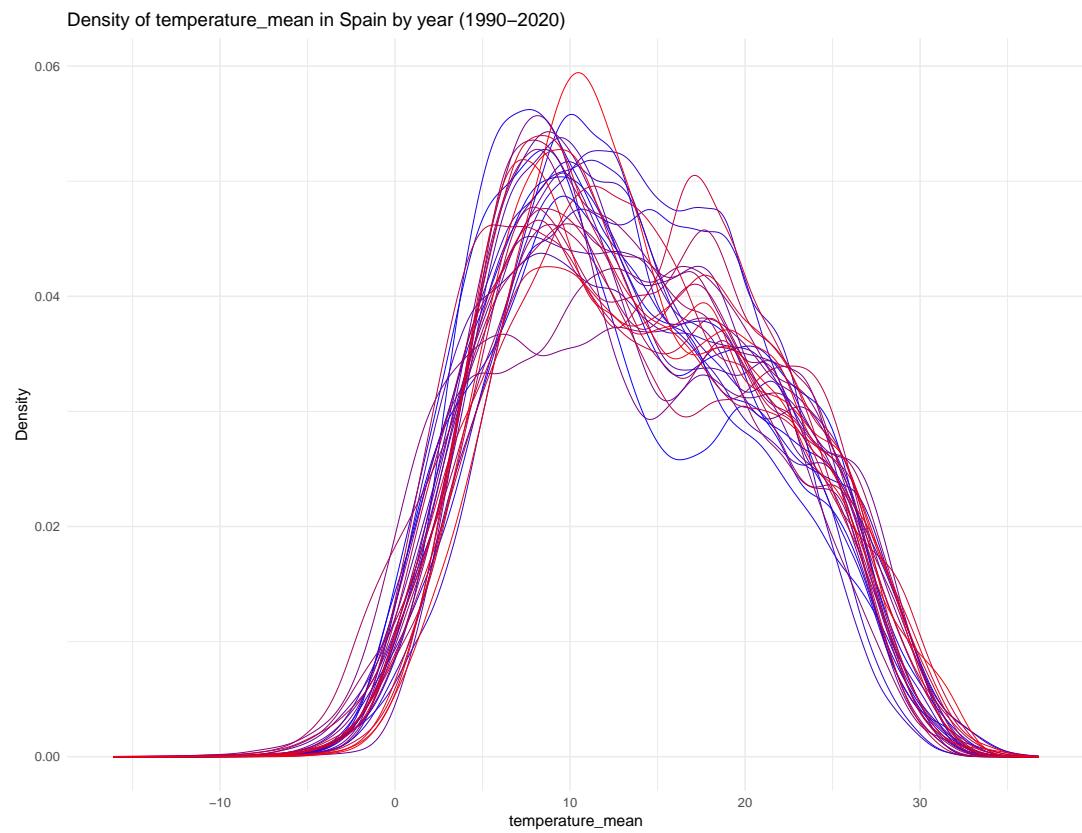


### 0.3.1.2.2 Max

Density of temperature\_max in Spain by year (1990–2020)

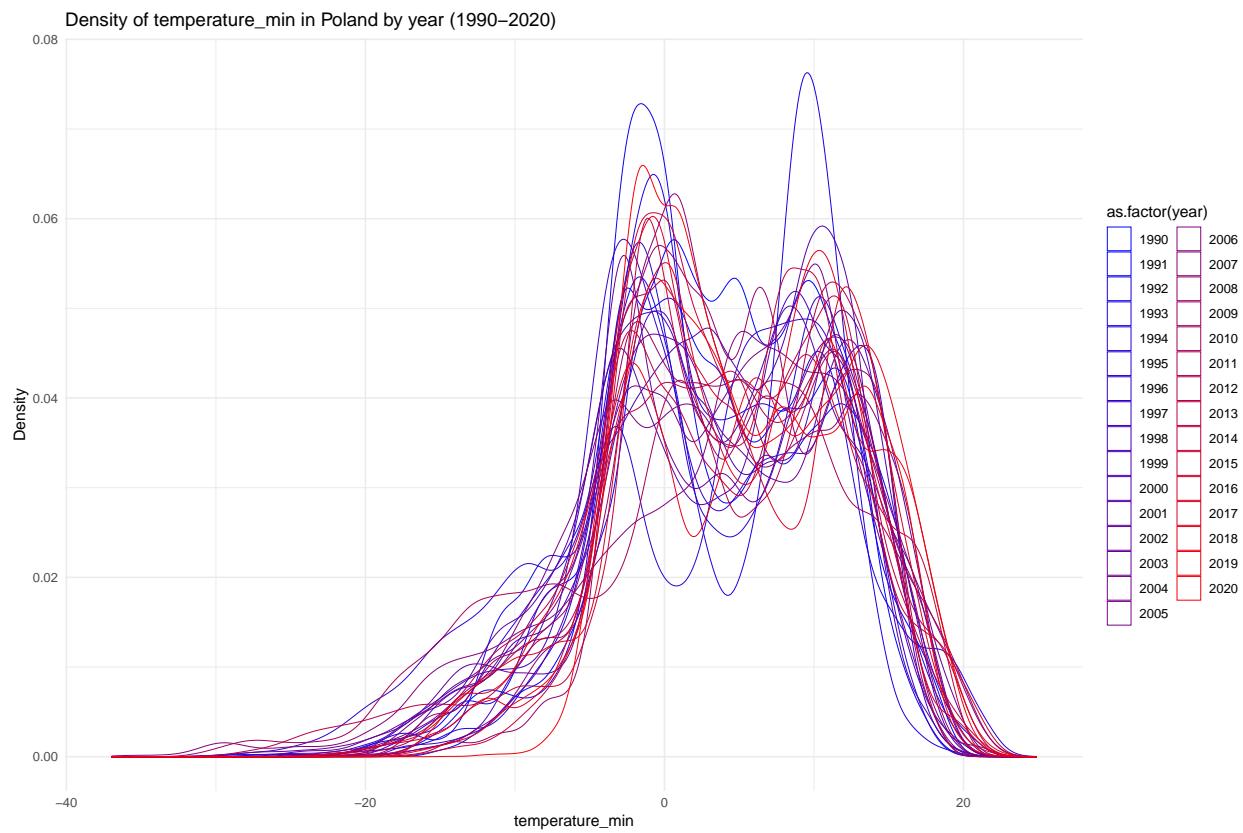


#### 0.3.1.2.3 Mean



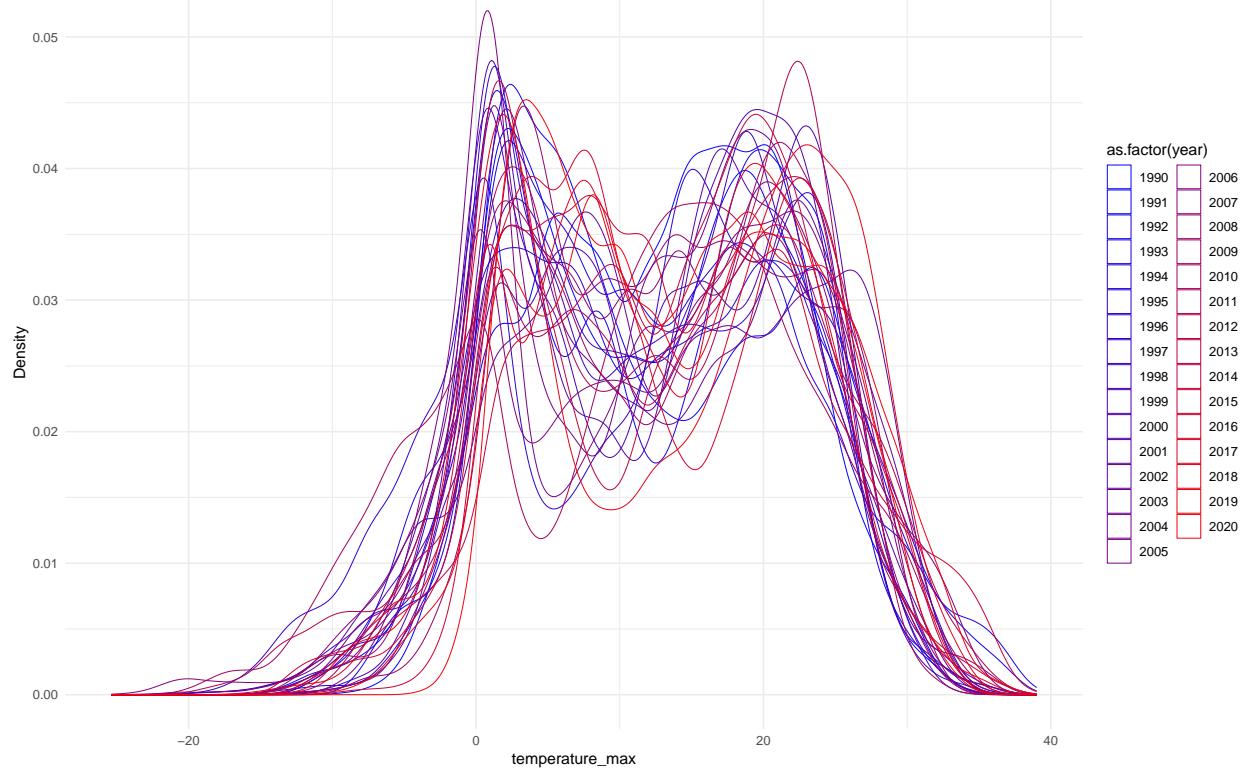
### 0.3.1.3 Poland

#### 0.3.1.3.1 Min

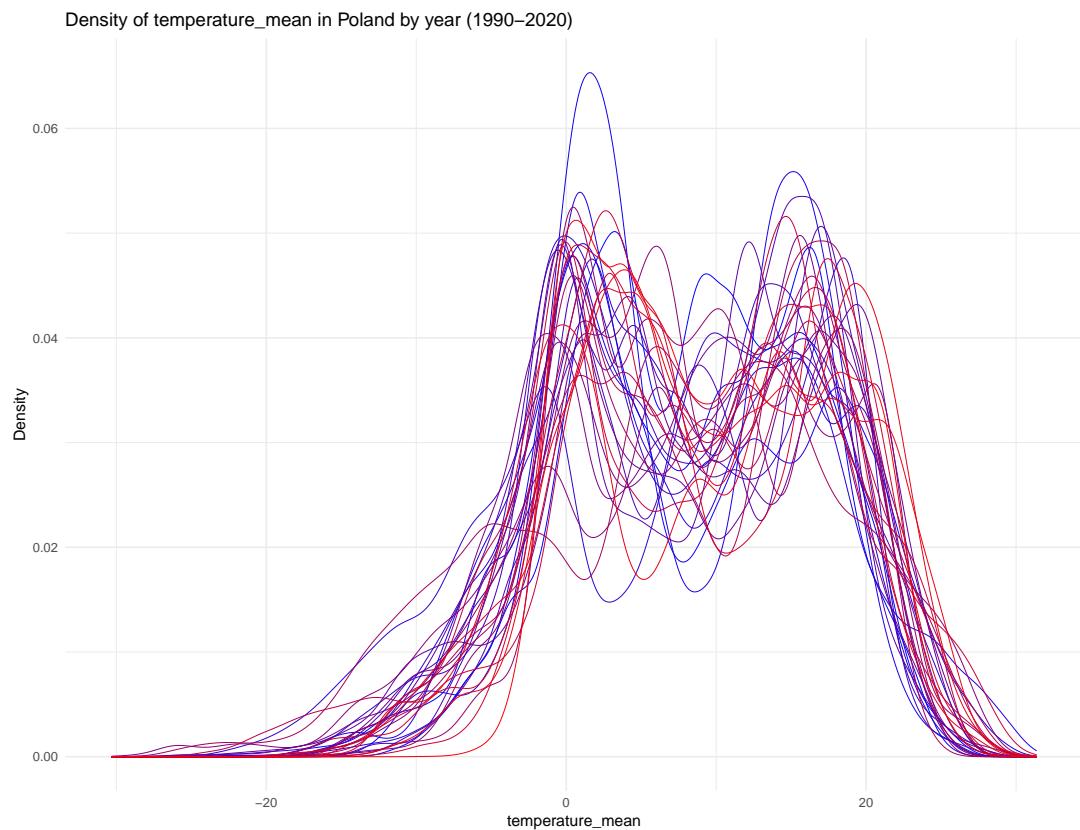


### 0.3.1.3.2 Max

Density of temperature\_max in Poland by year (1990–2020)

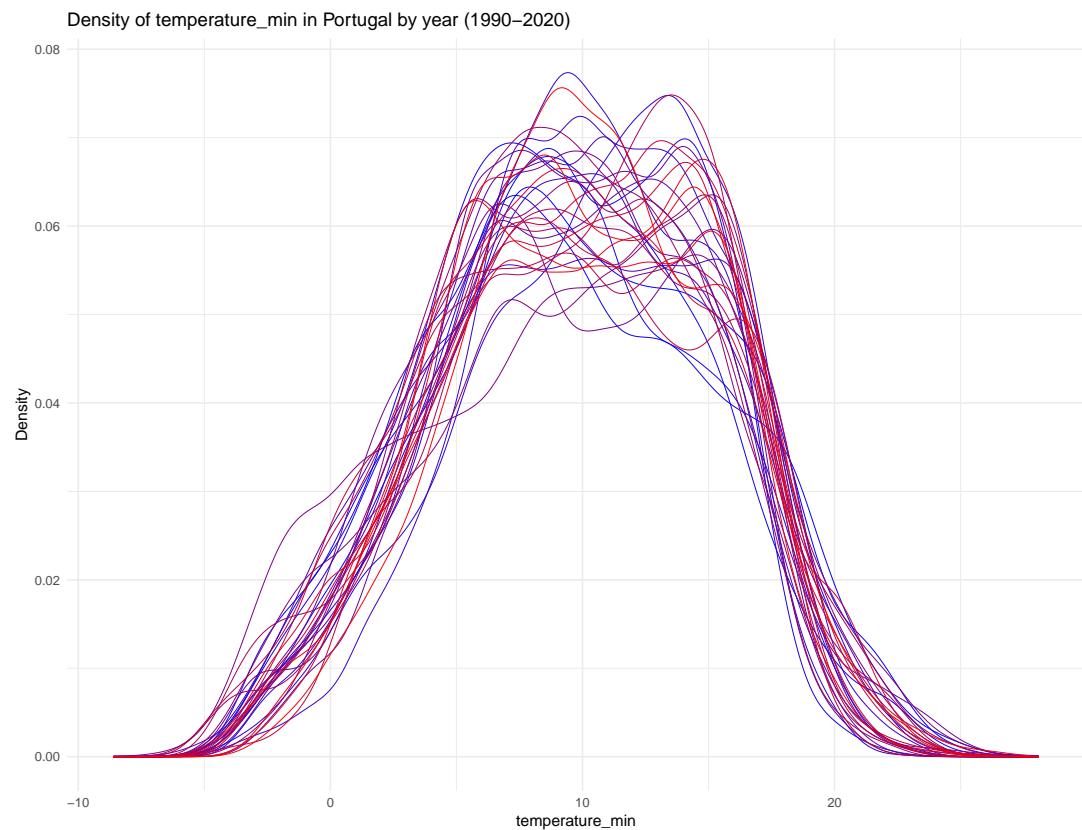


### 0.3.1.3.3 Mean



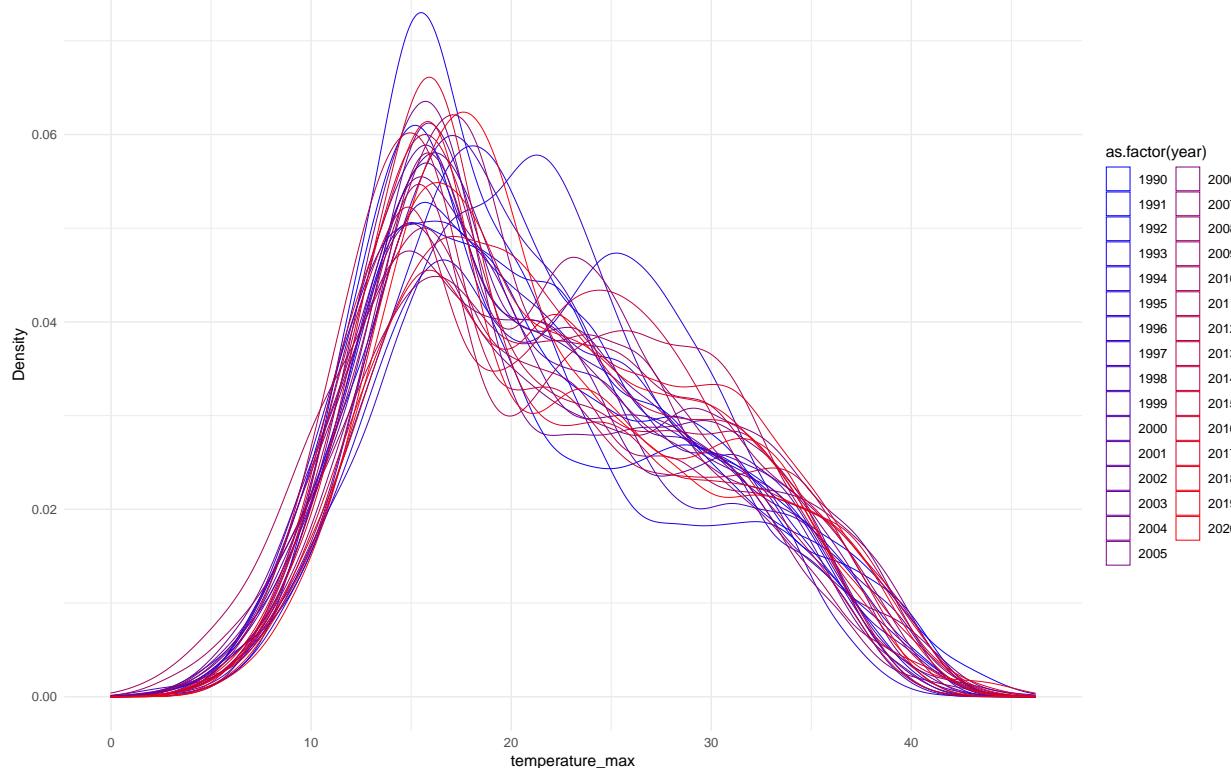
### 0.3.1.4 Portugal

#### 0.3.1.4.1 Min

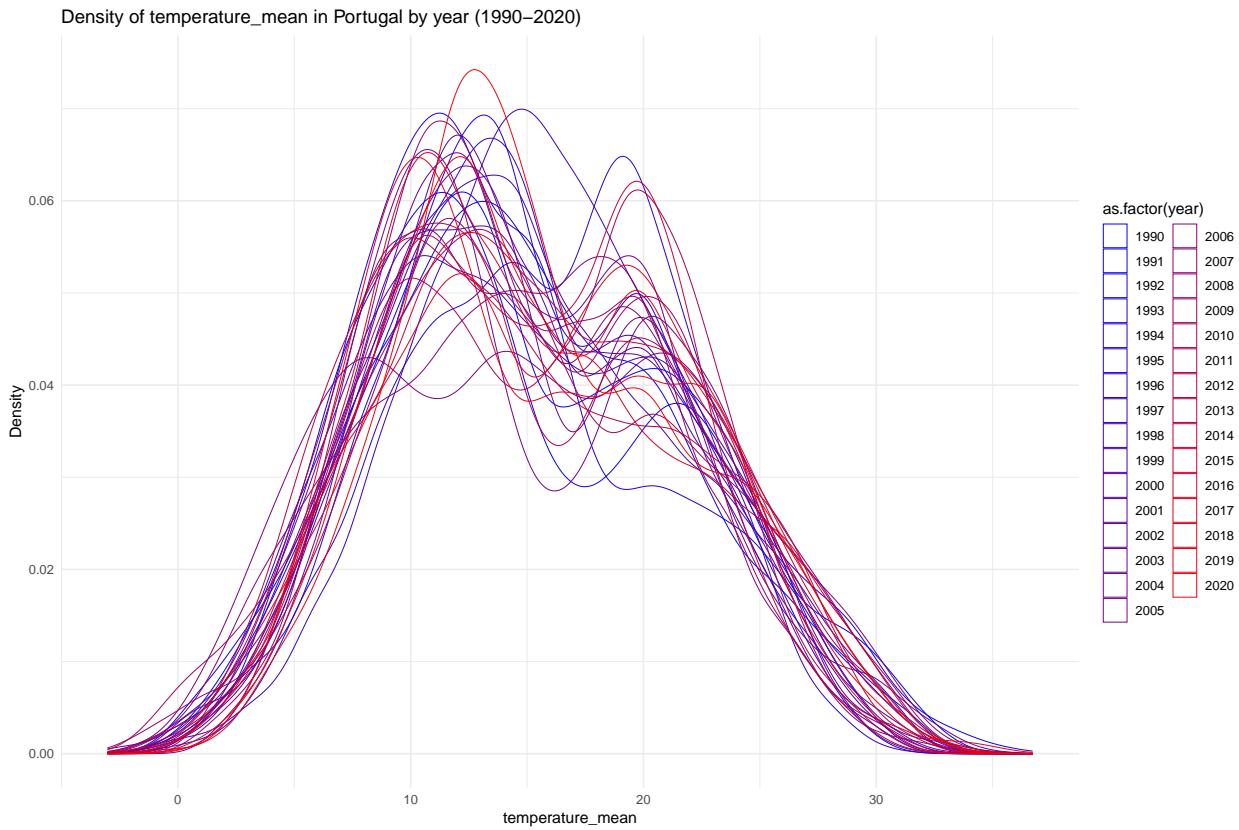


#### 0.3.1.4.2 Max

Density of temperature\_max in Portugal by year (1990–2020)



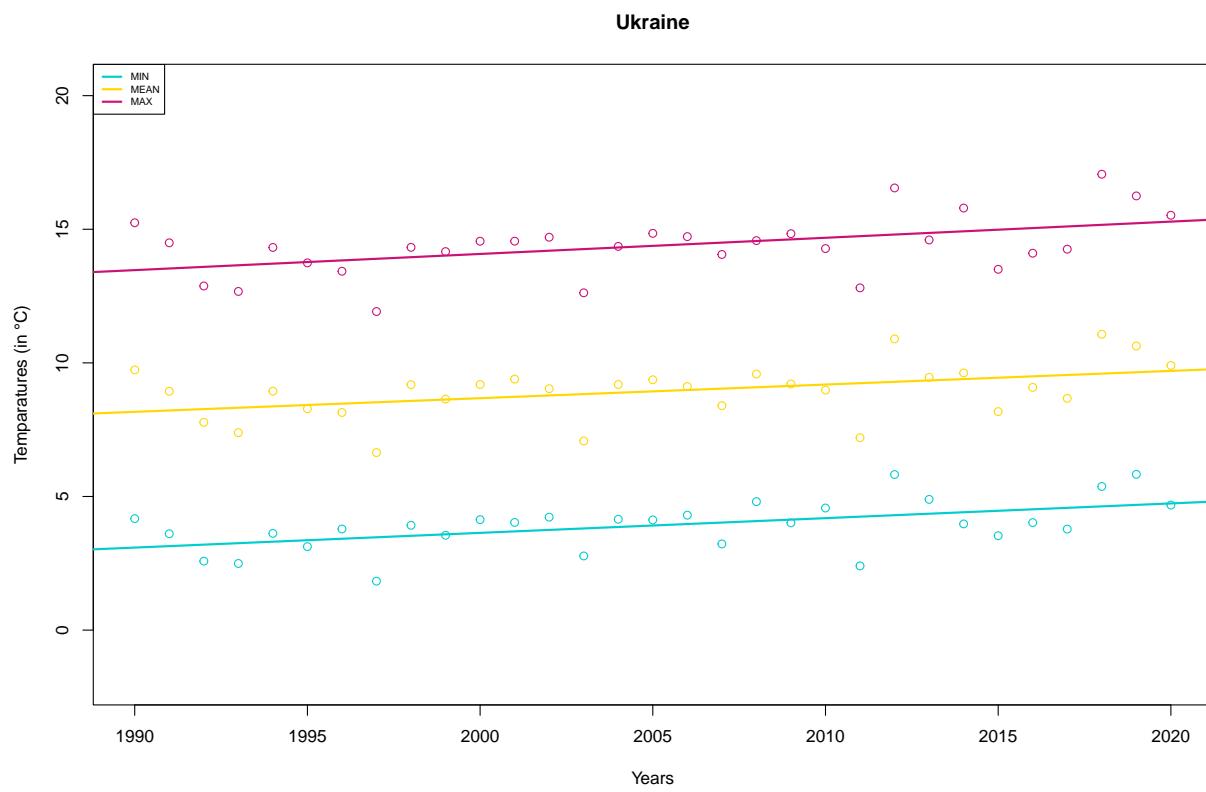
#### 0.3.1.4.3 Mean



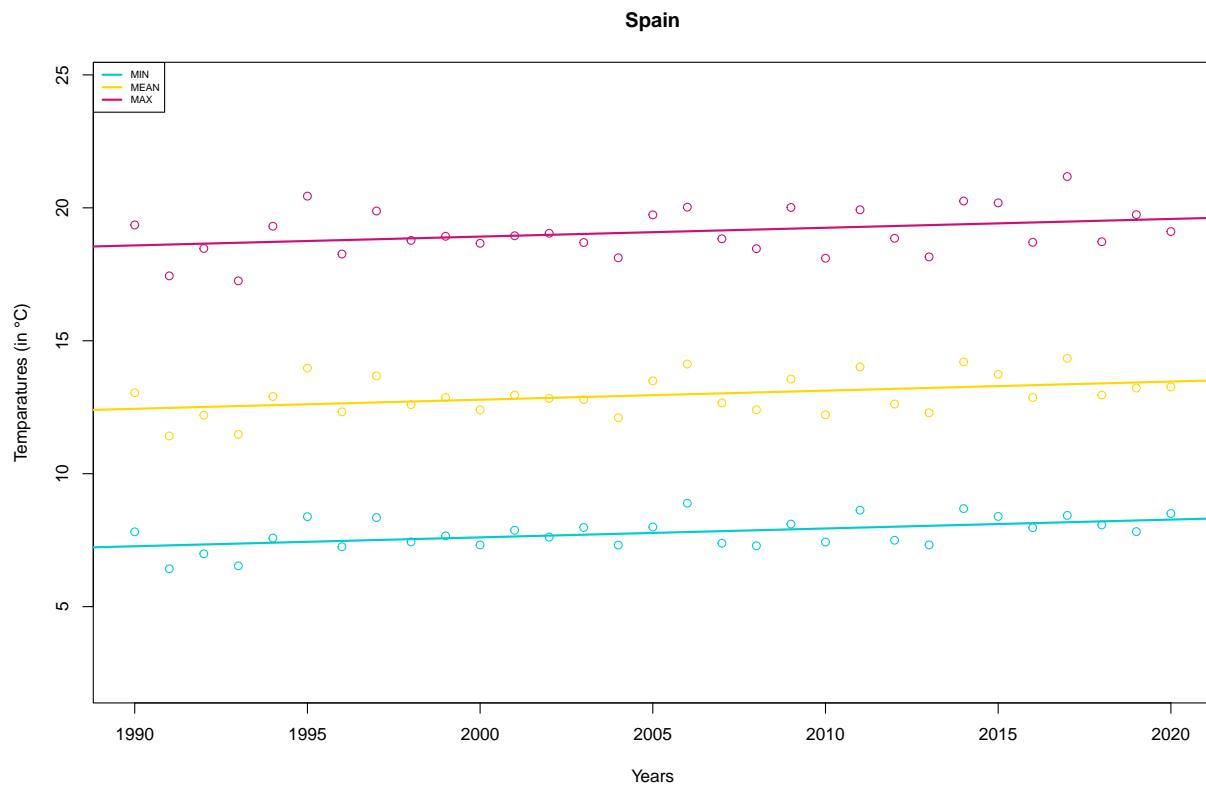
### 0.3.2 Linear regression

These plots shows the linear regression of the temperature variables (min, max, mean) for each country over the years.

#### 0.3.2.1 Ukraine

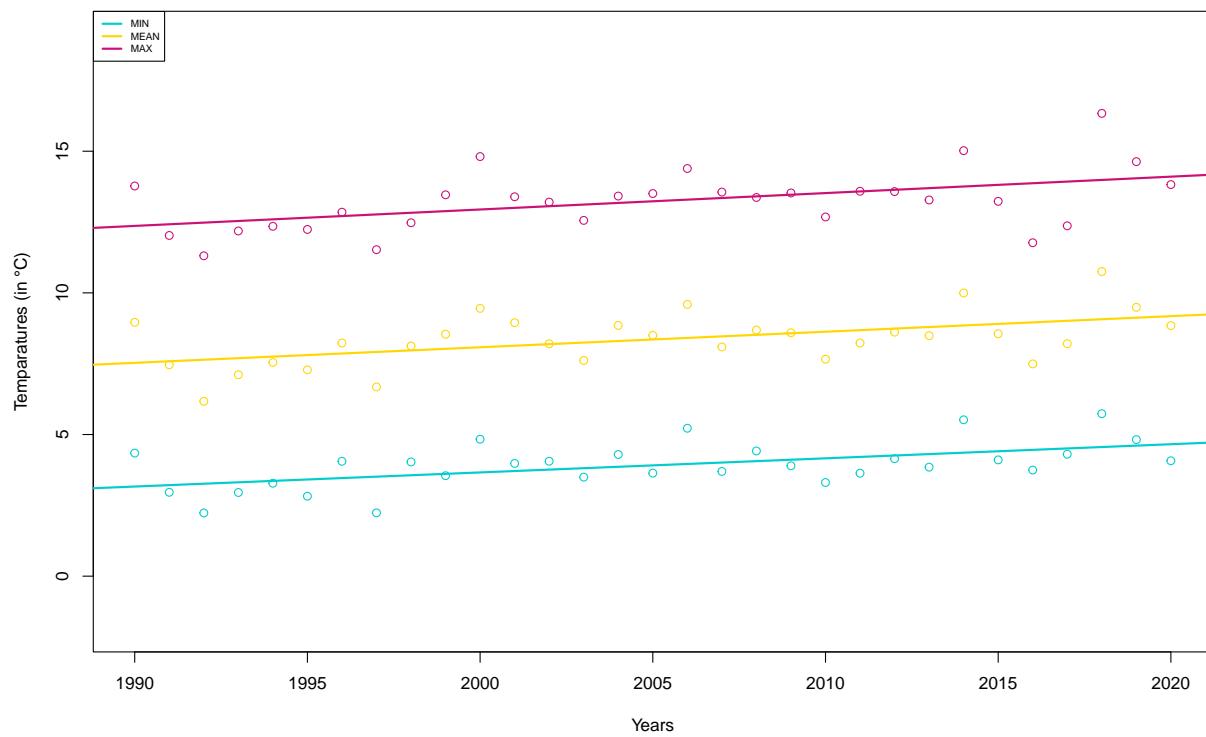


### 0.3.2.2 Spain

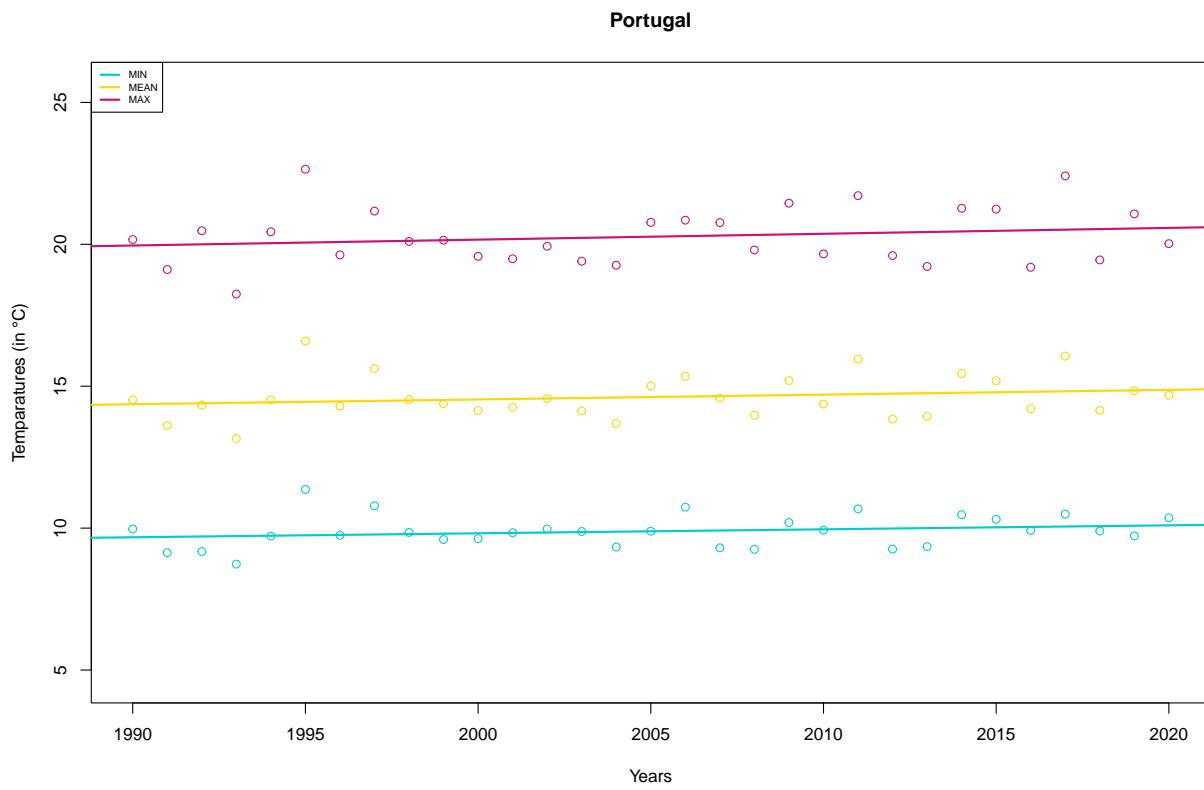


#### 0.3.2.3 Poland

### Poland



#### 0.3.2.4 Portugal



## 0.4 Migration Analysis

ToDo

### 0.4.1 Variable selection

ToDo

### 0.4.2 Model Development

ToDo

## 0.5 Literature Review

ToDo

## 0.6 Conclusion