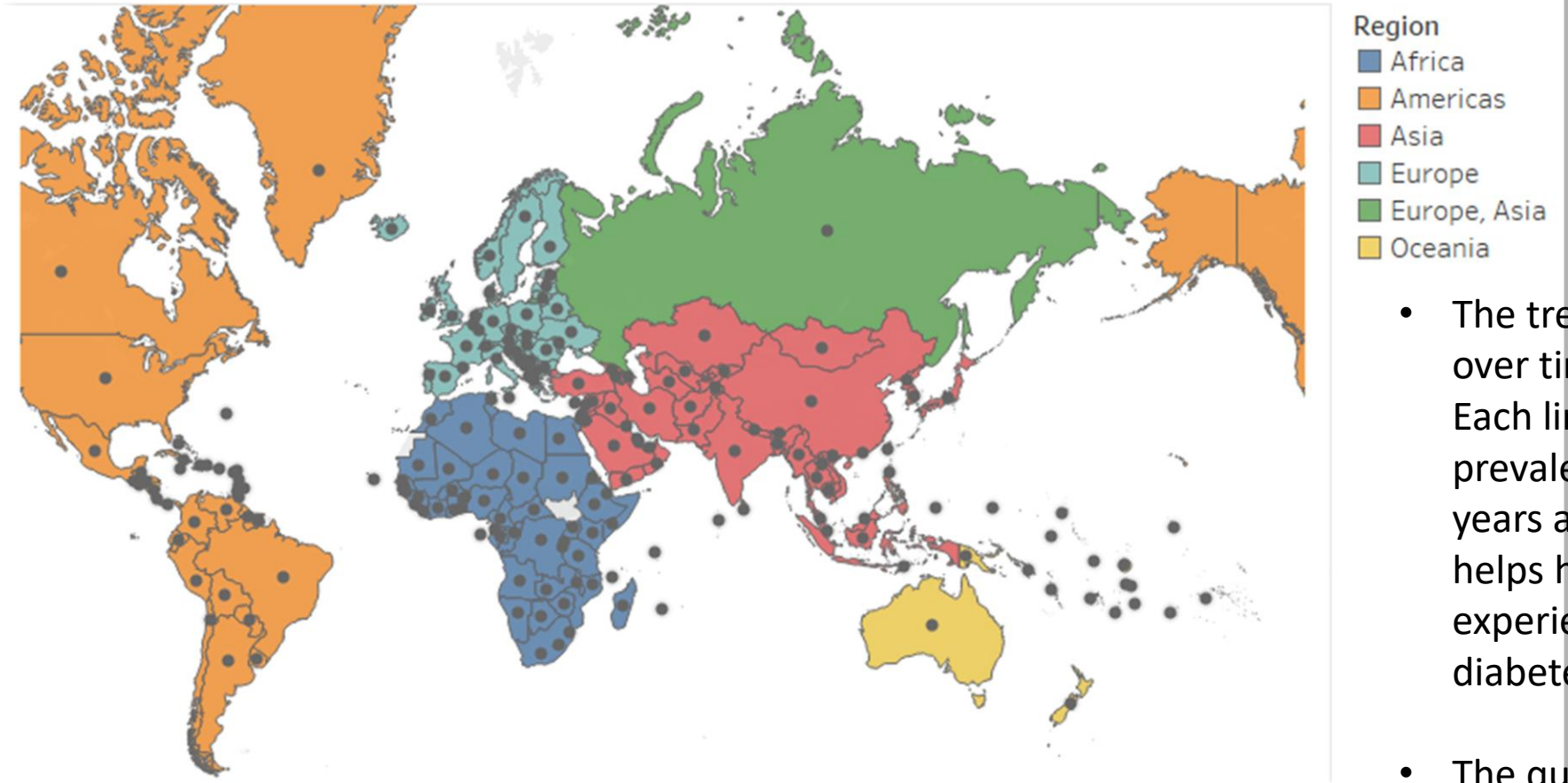
Task 1

Diabetes Prevalence

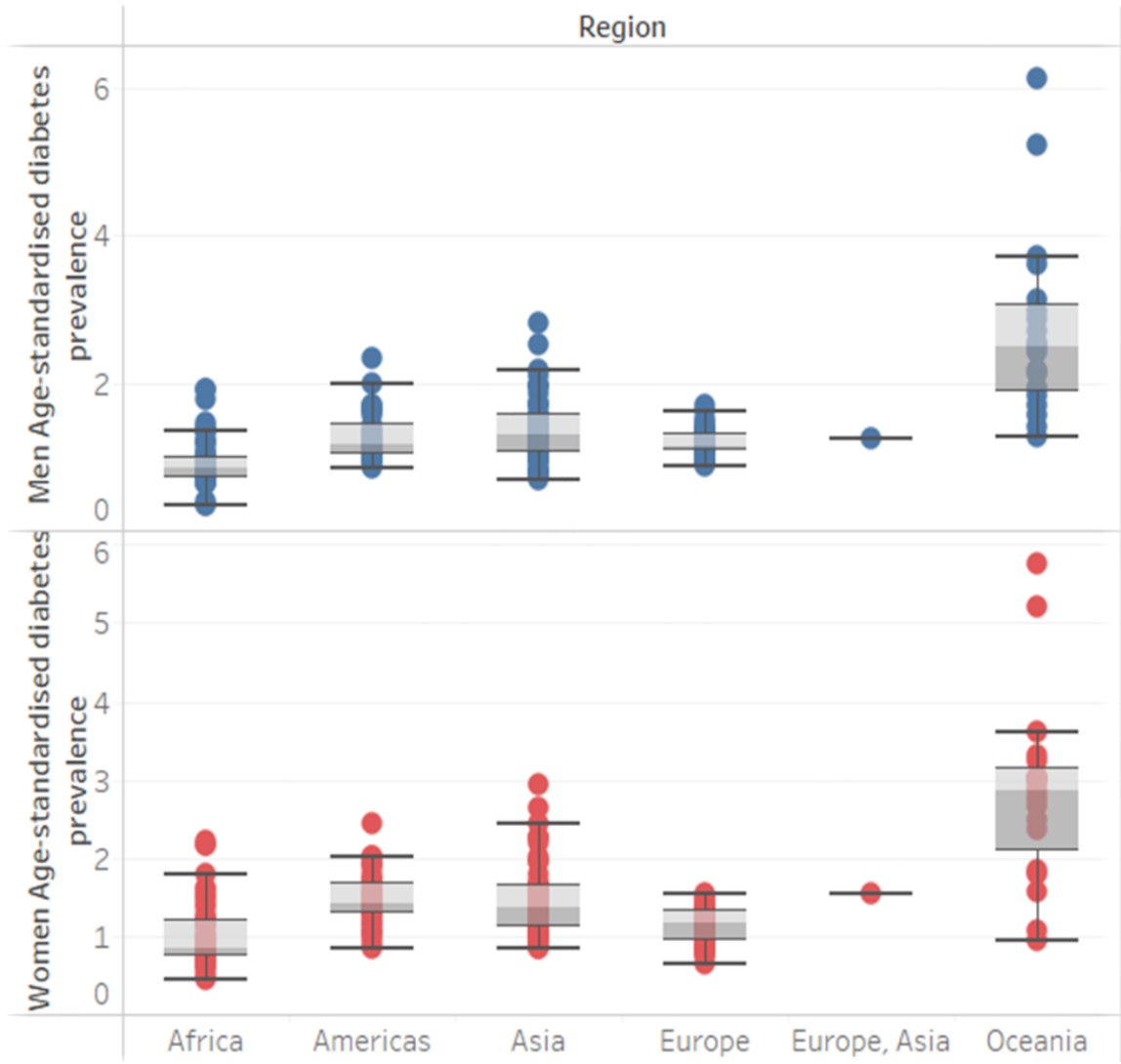
1.1a. Countries to Region



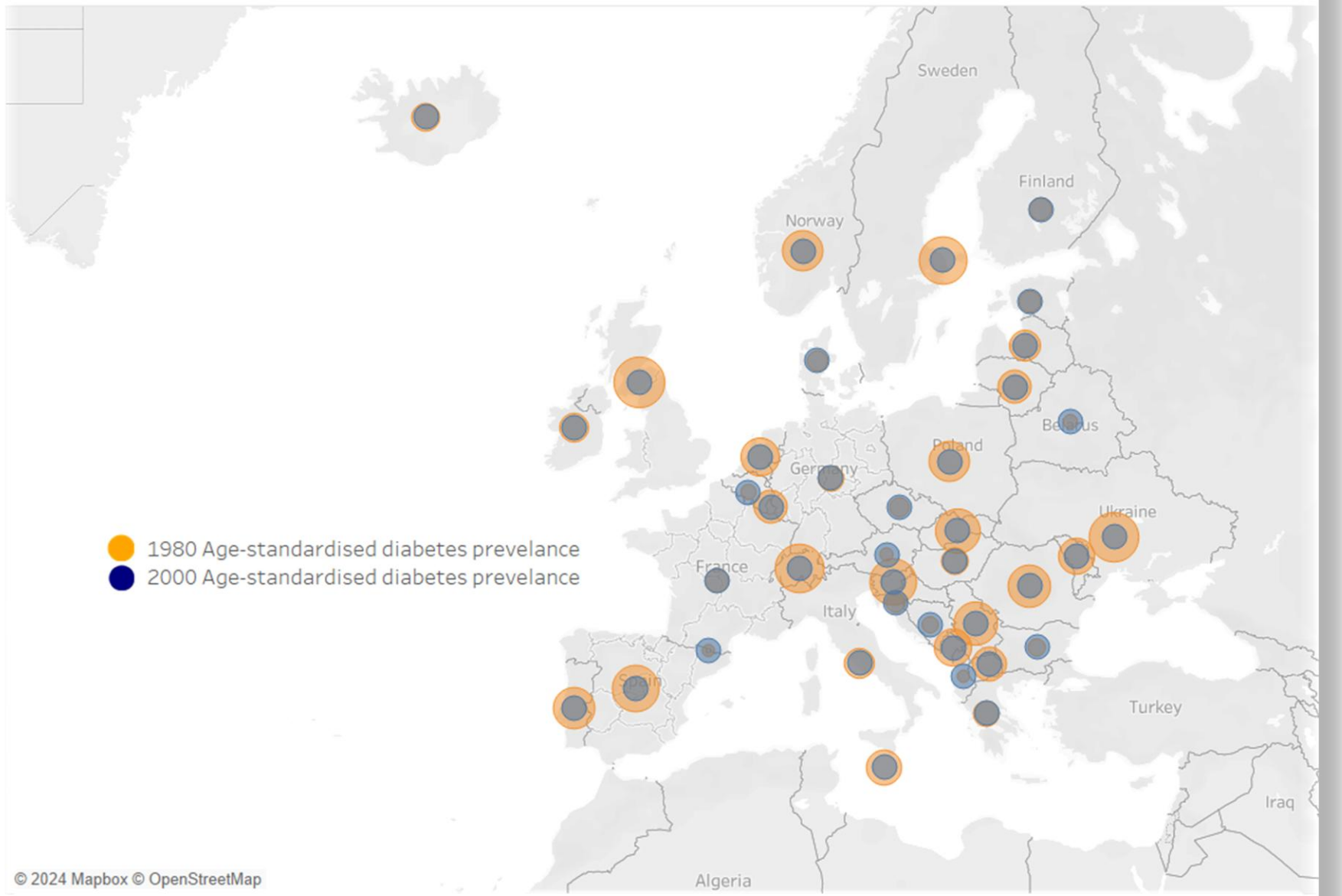
- The trend of diabetes prevalence over time, broken down by region. Each line represents the average prevalence for a region over the years available in the dataset. This helps highlight any regions experiencing notable increases in diabetes prevalence over time.

- The quality of the findings: Divergent Trends, Consistently Positive or Negative Trends, Minimal Change in Certain Countries, Regional Observations

1.2. Men-Women Region-wise



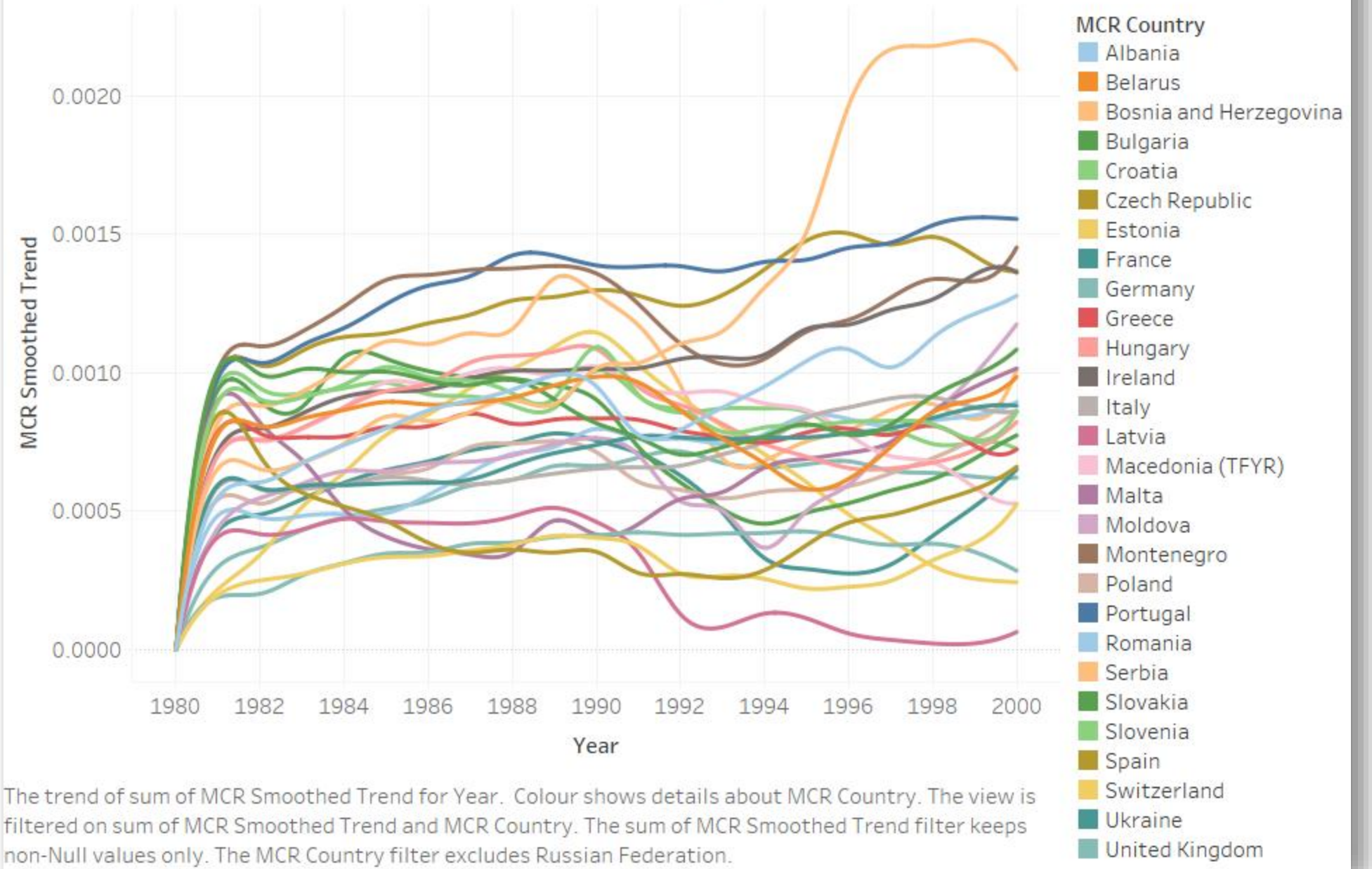
1.1b. Europe Focus



Here, we focused on Europe countries, because these are the only countries having all **three** types of trends Diabetes Prevalence over the years:

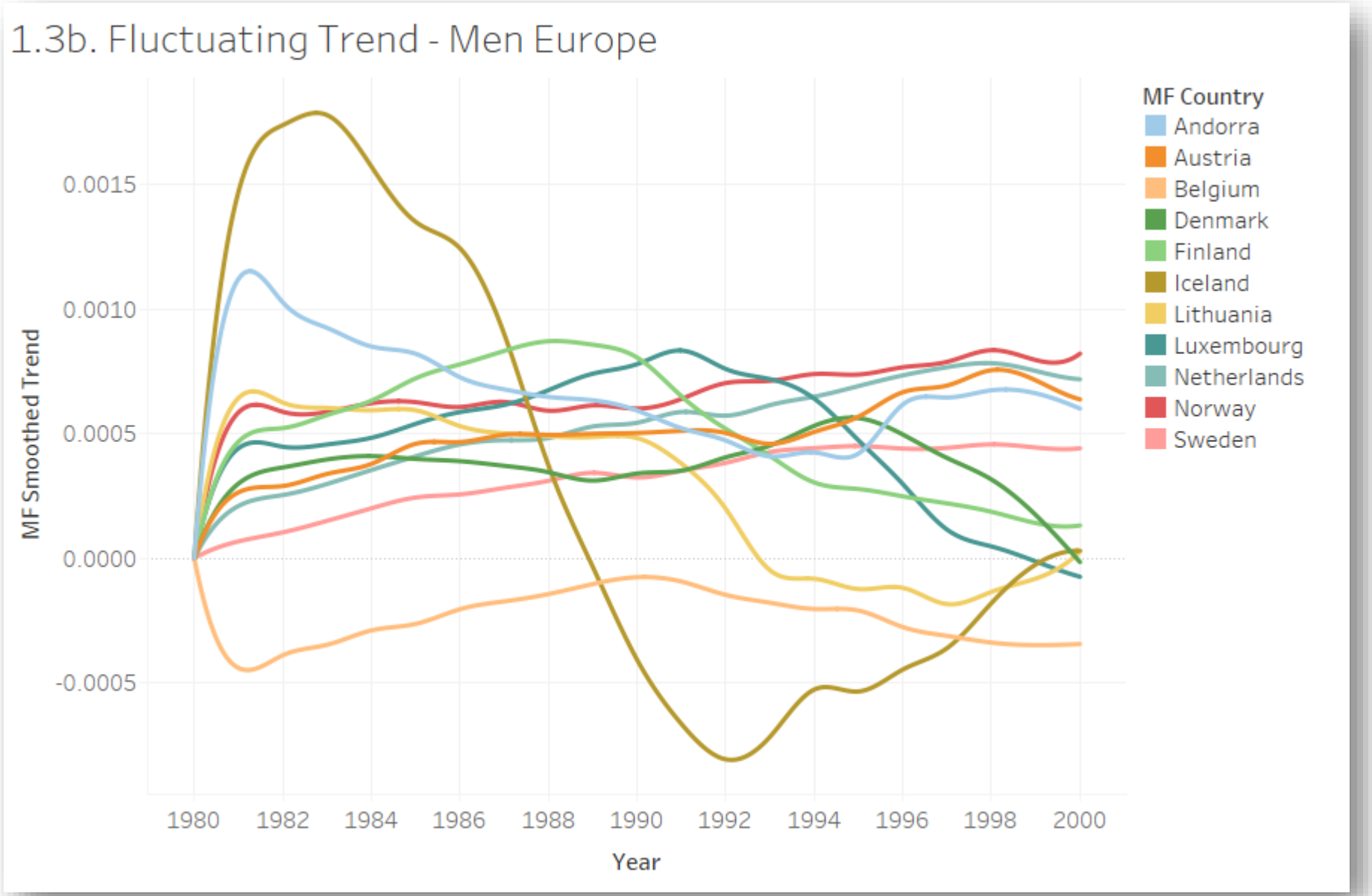
1. Consistently Rising
2. Consistently Falling
3. Fluctuating

1.3a. Consistently Rising Trend - Men Europe

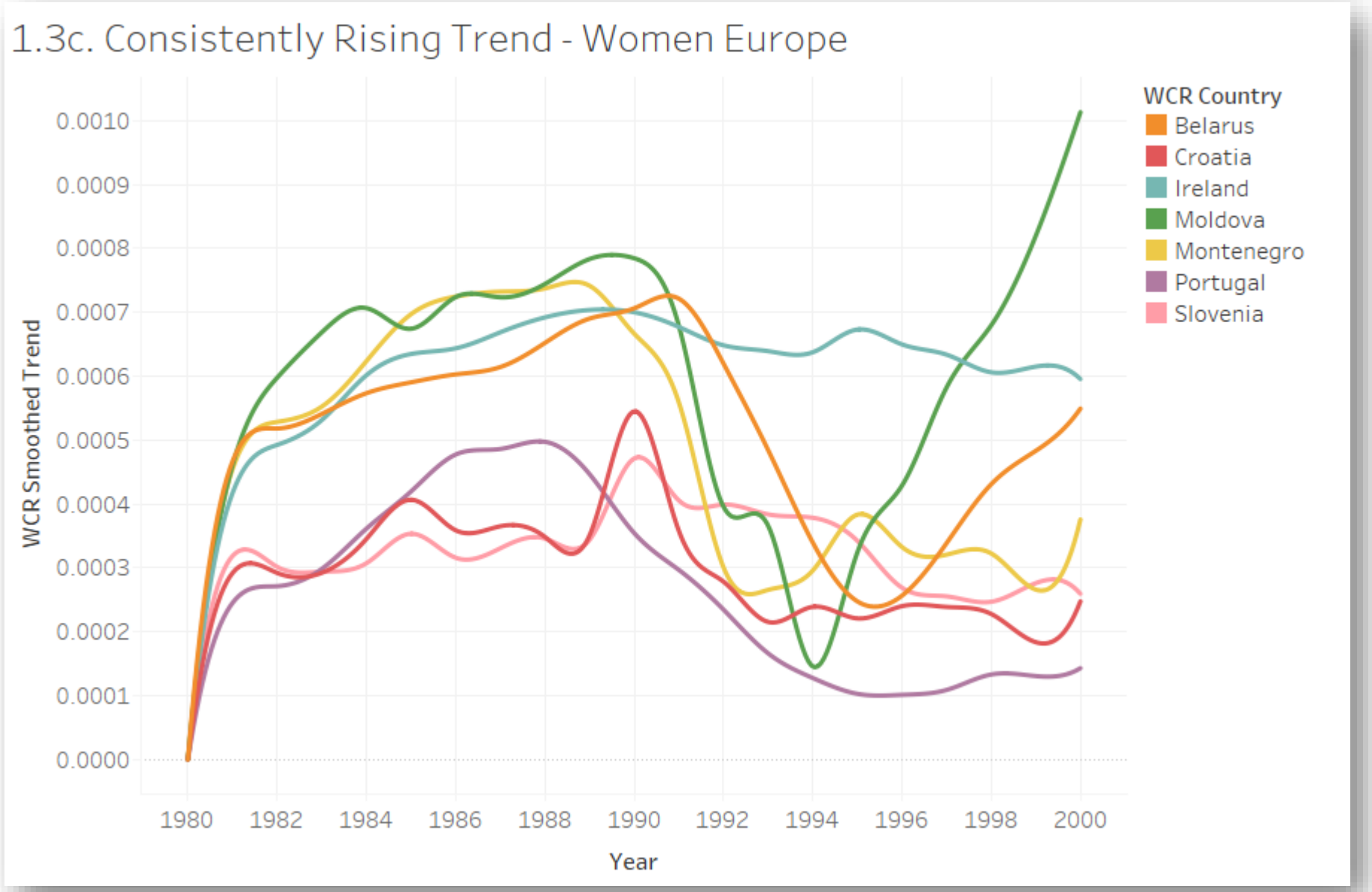


The trend of sum of MCR Smoothed Trend for Year. Colour shows details about MCR Country. The view is filtered on sum of MCR Smoothed Trend and MCR Country. The sum of MCR Smoothed Trend filter keeps non-Null values only. The MCR Country filter excludes Russian Federation.

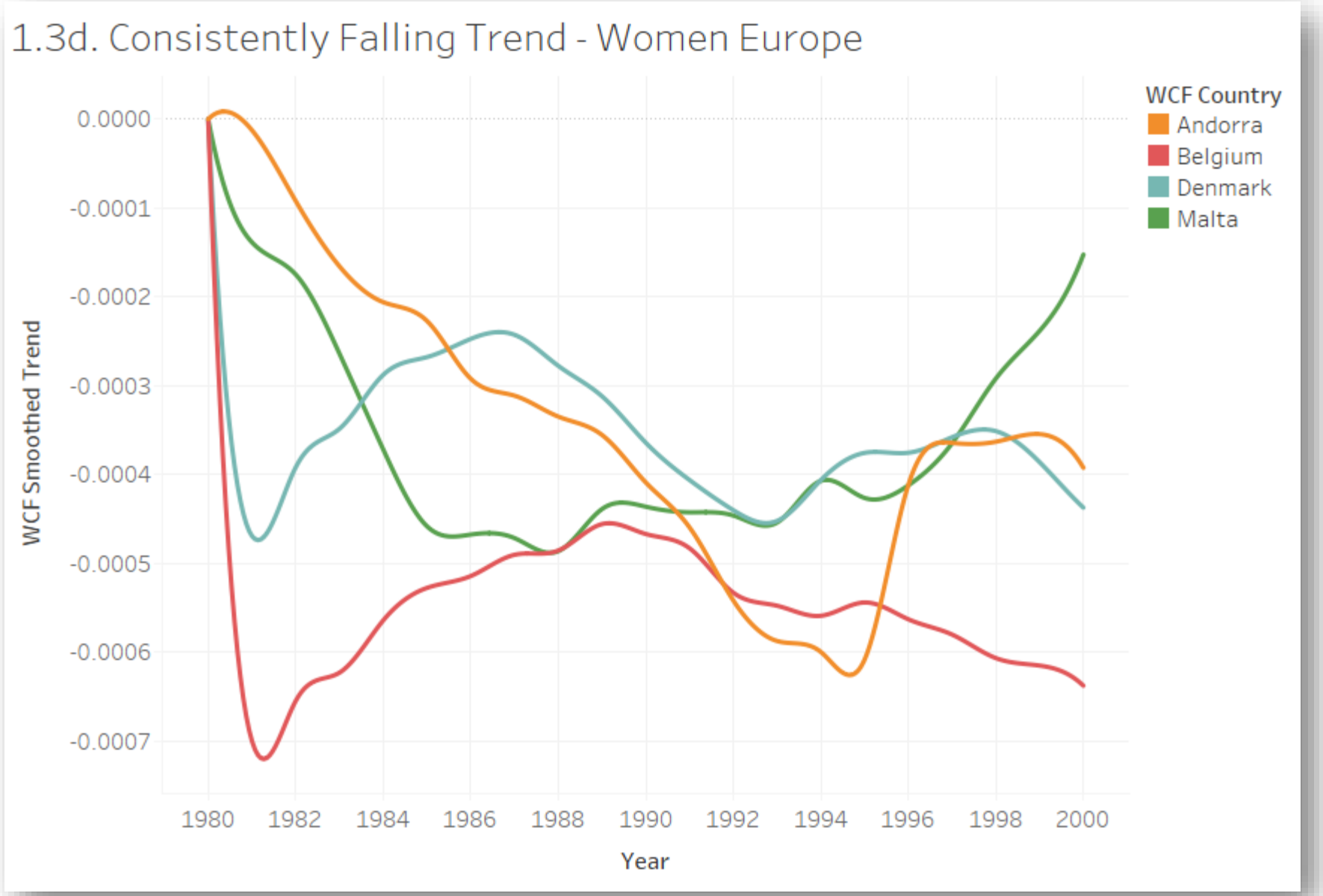
This graph shows the Consistently Rising Trend in Men at Europe.



This graph shows the FluctuatingTrend in Men at Europe.

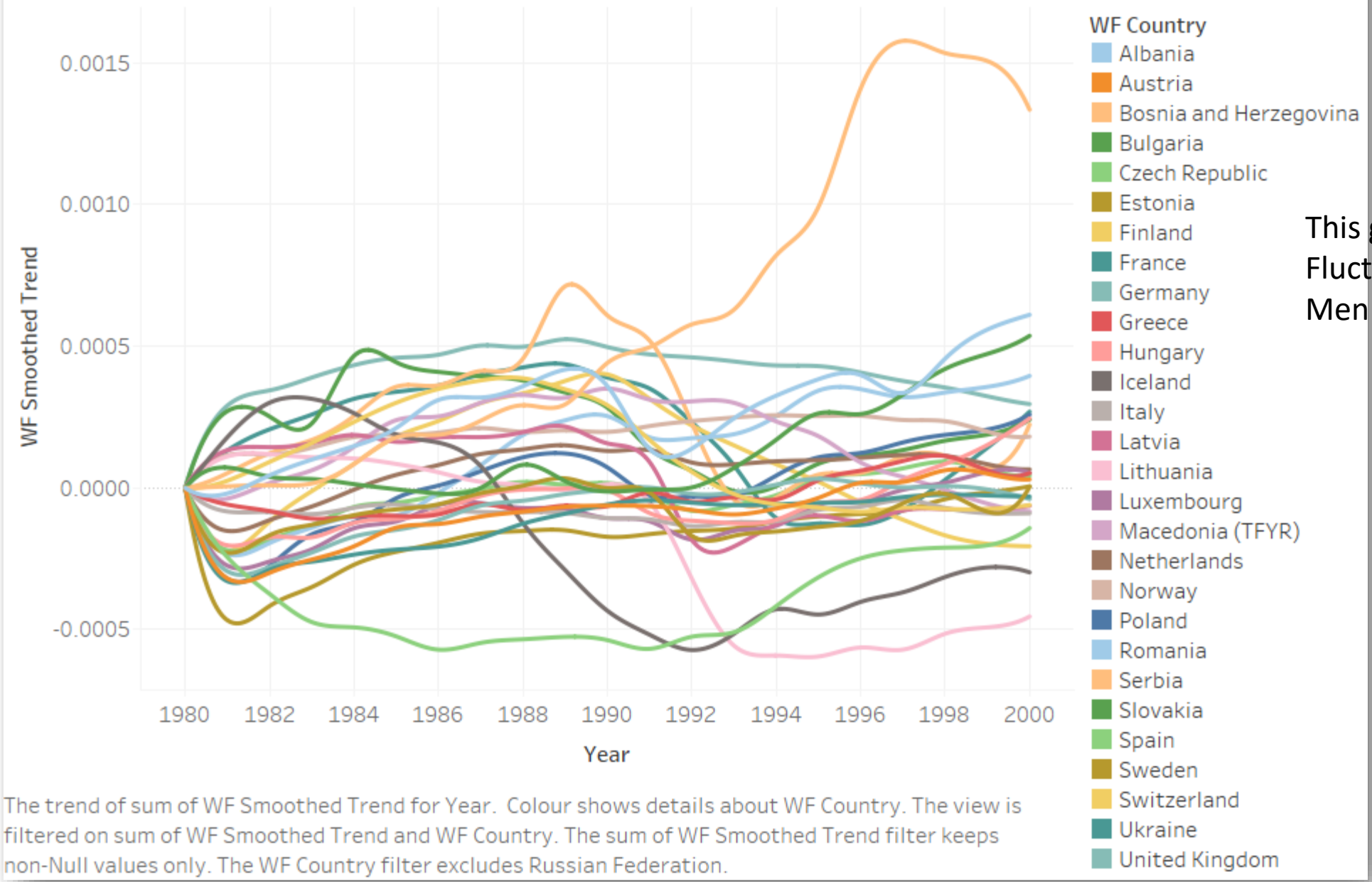


This graph shows the Consistently Rising Trend in Women at Europe.



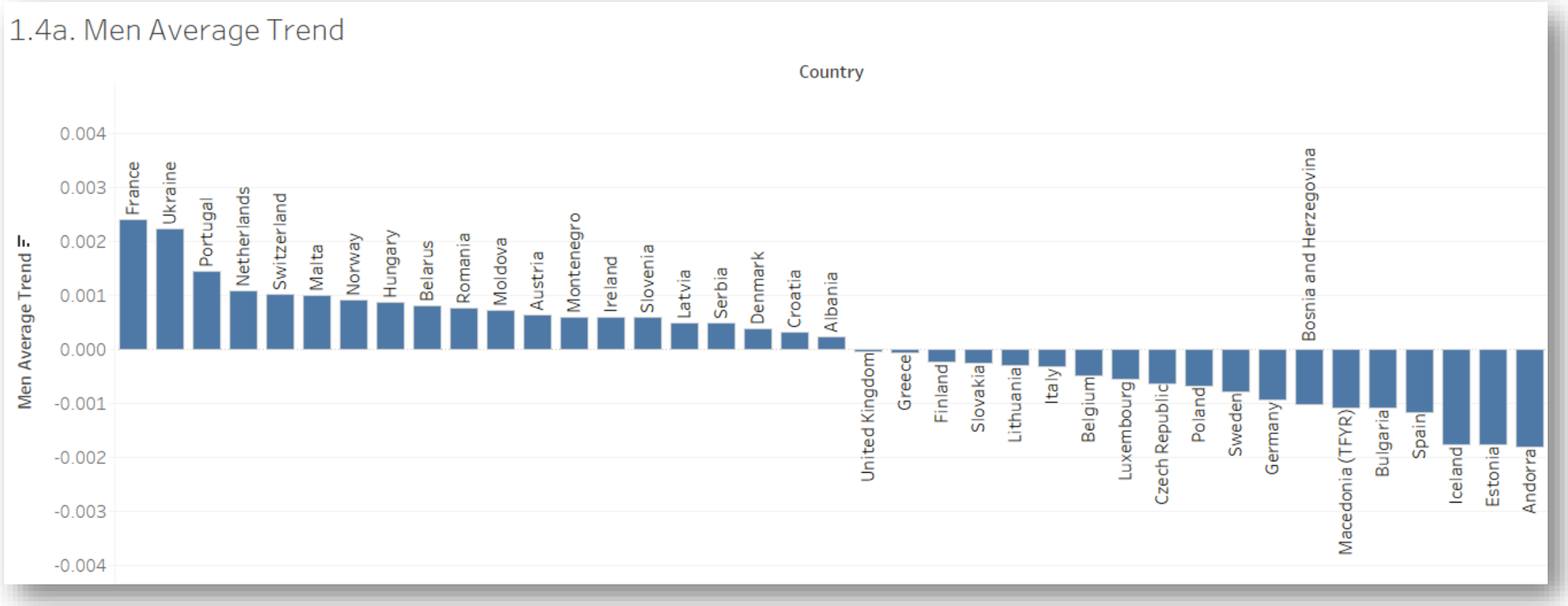
This graph shows the Consistently Falling Trend in Men at Europe.

1.3e. Fluctuating Trend - Women Europe

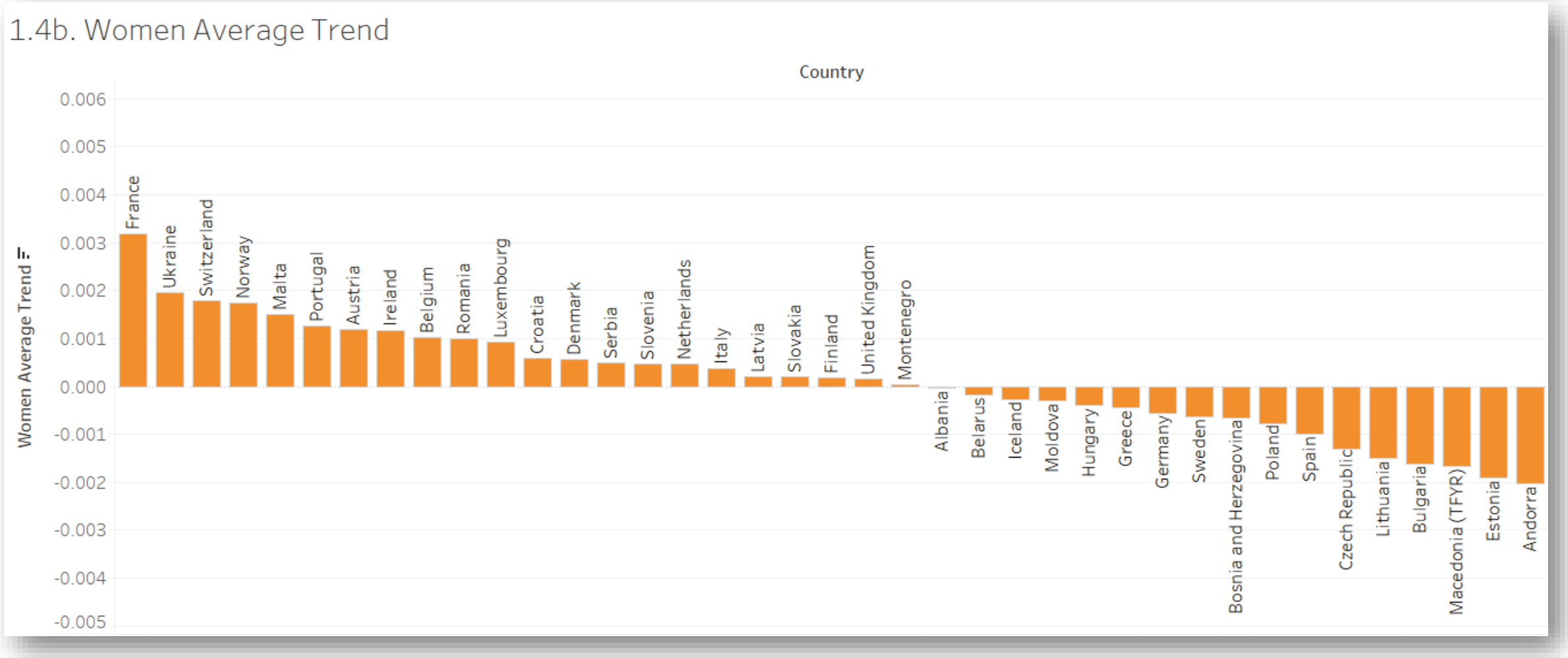


The trend of sum of WF Smoothed Trend for Year. Colour shows details about WF Country. The view is filtered on sum of WF Smoothed Trend and WF Country. The sum of WF Smoothed Trend filter keeps non-Null values only. The WF Country filter excludes Russian Federation.

This graph shows the Fluctuating Trend in Men at Europe.



This bar chart shows the average trend in men from the year 1980-2000.



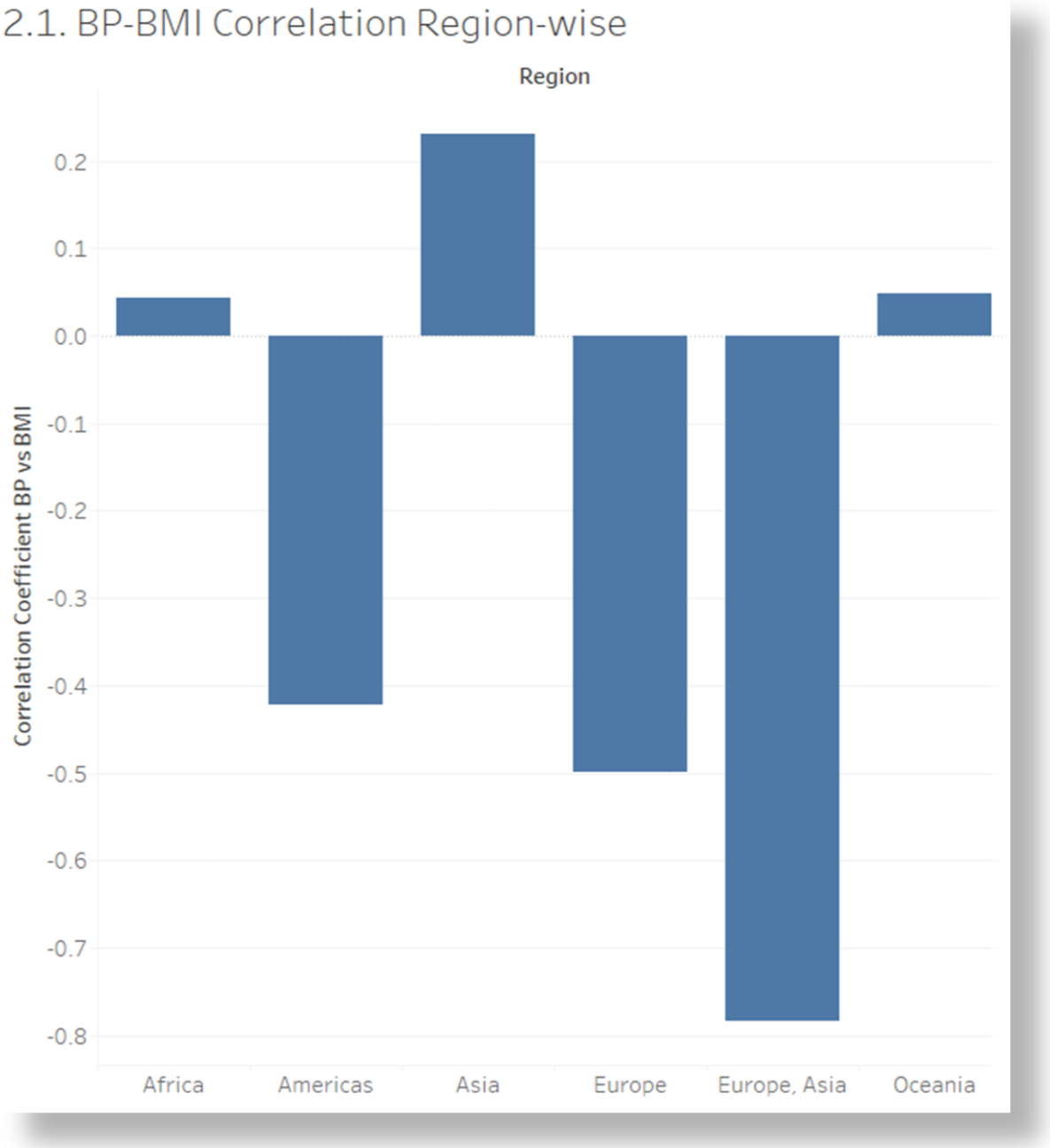
This bar chart shows the average trend in women from the year 1980-2000.

- **Divergent Trends:** In several countries, there is a clear divergence in diabetes trends between men and women. For instance, countries like Belgium, Czech Republic, and Italy show increasing trends for men and decreasing trends for women. Conversely, countries like Bosnia and Herzegovina, Lithuania, and Romania show an opposite pattern, with increasing trends for women and decreasing for men.
- **Consistently Positive or Negative Trends**: Some countries (like France, Luxembourg, and Poland) show increasing trends for both genders, while others (like Denmark, Macedonia, and Ukraine) show decreasing trends.
- **Minimal Change in Certain Countries:** In some countries (such as Netherlands, Switzerland, and United Kingdom), the diabetes trends for both genders are near zero, indicating minimal or no significant change.
- **Regional Observations:** Although the data is presented by individual country, there may be regional patterns, such as Eastern European countries showing mixed trends between genders (e.g., Romania and Lithuania), while some Western European countries show more consistent trends across genders.

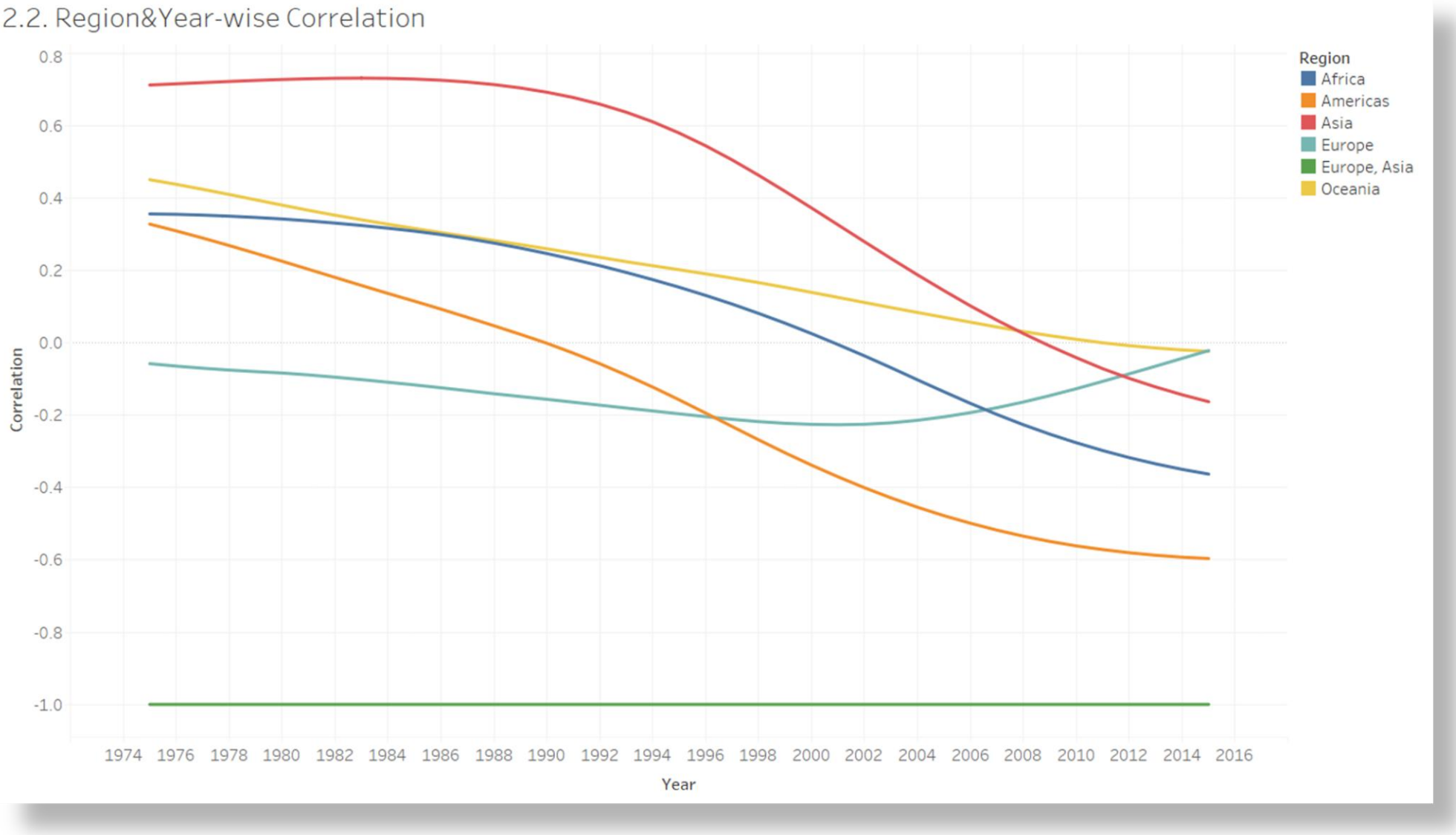
Task 2

BP and BMI Prevalence

2.1. BP-BMI Correlation Region-wise



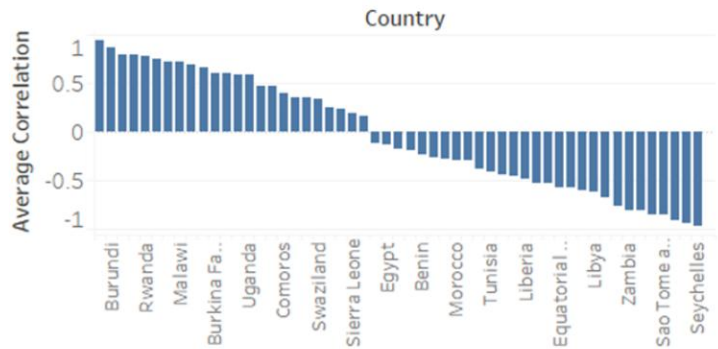
- Diving into overall the data between BP and BMI, it showed mixed relationship among each continent



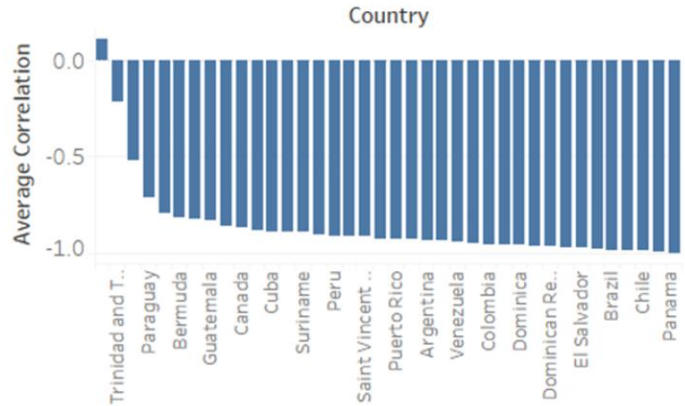
This line graph shows the BP-BMI correlation between the Regions from the year 1980-2014.

Countries' BP vs BMI Correlation (Region-wise)

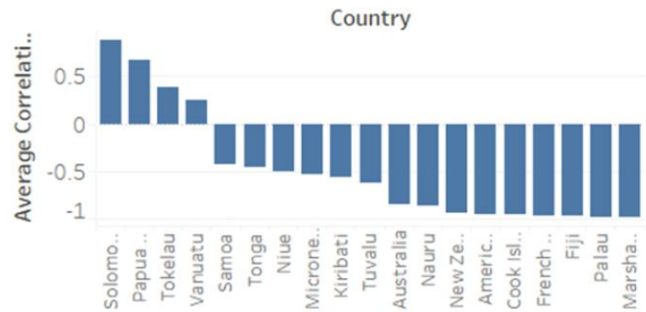
Africas



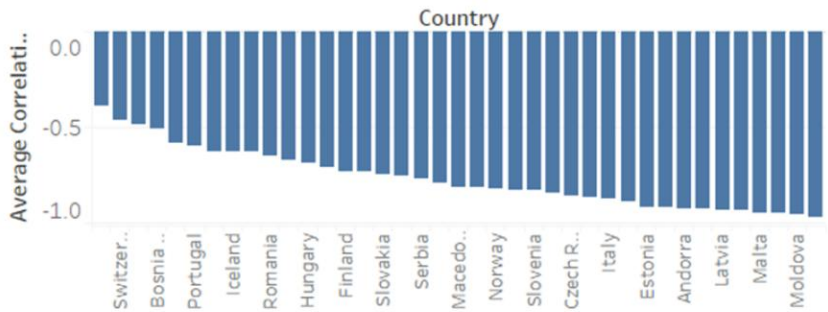
Americas



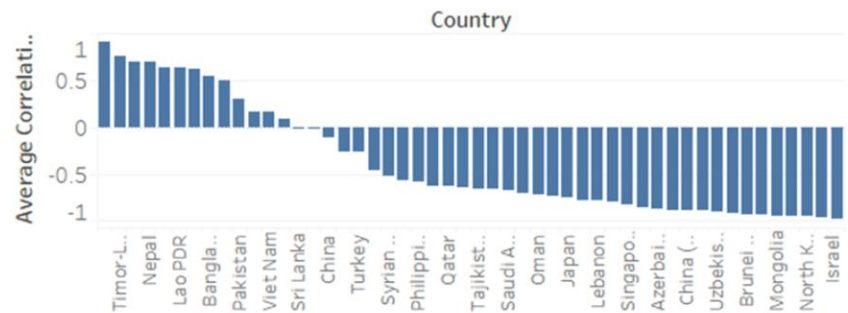
Oceanias

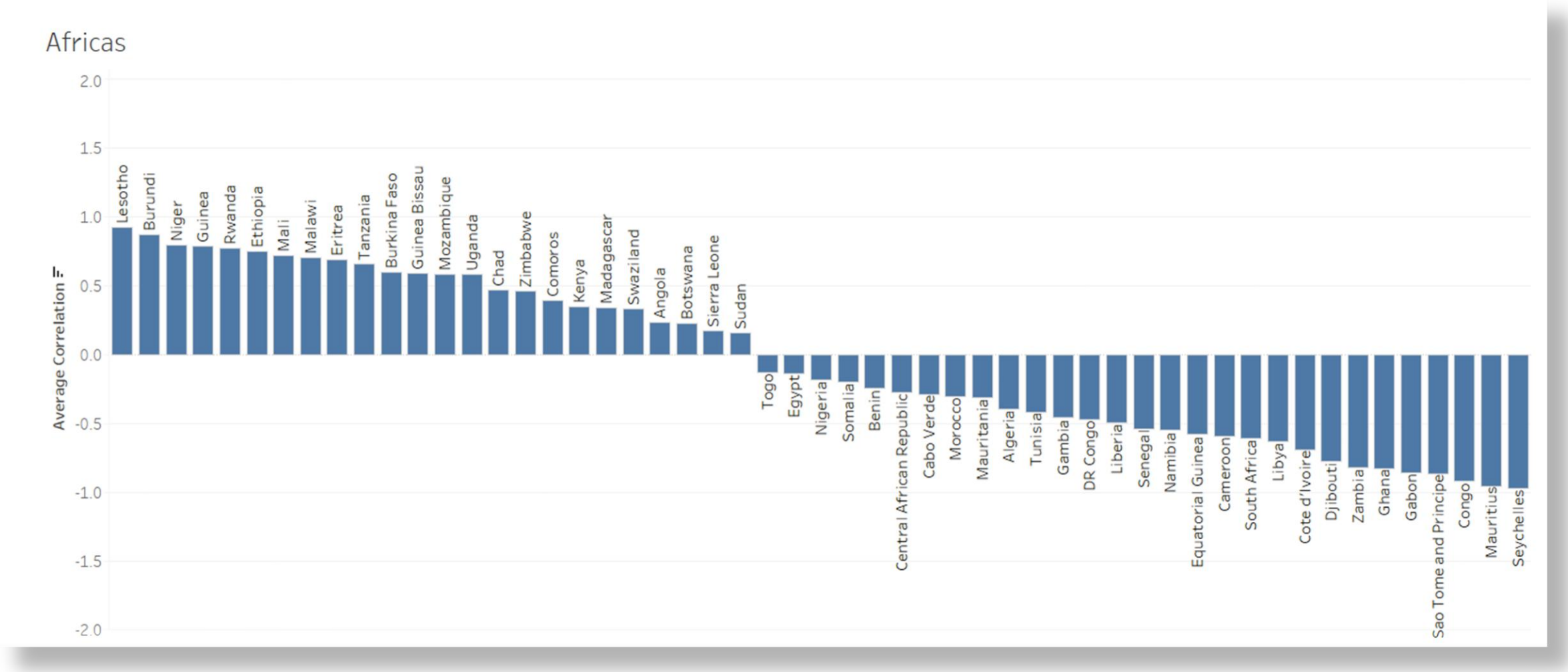


Europes

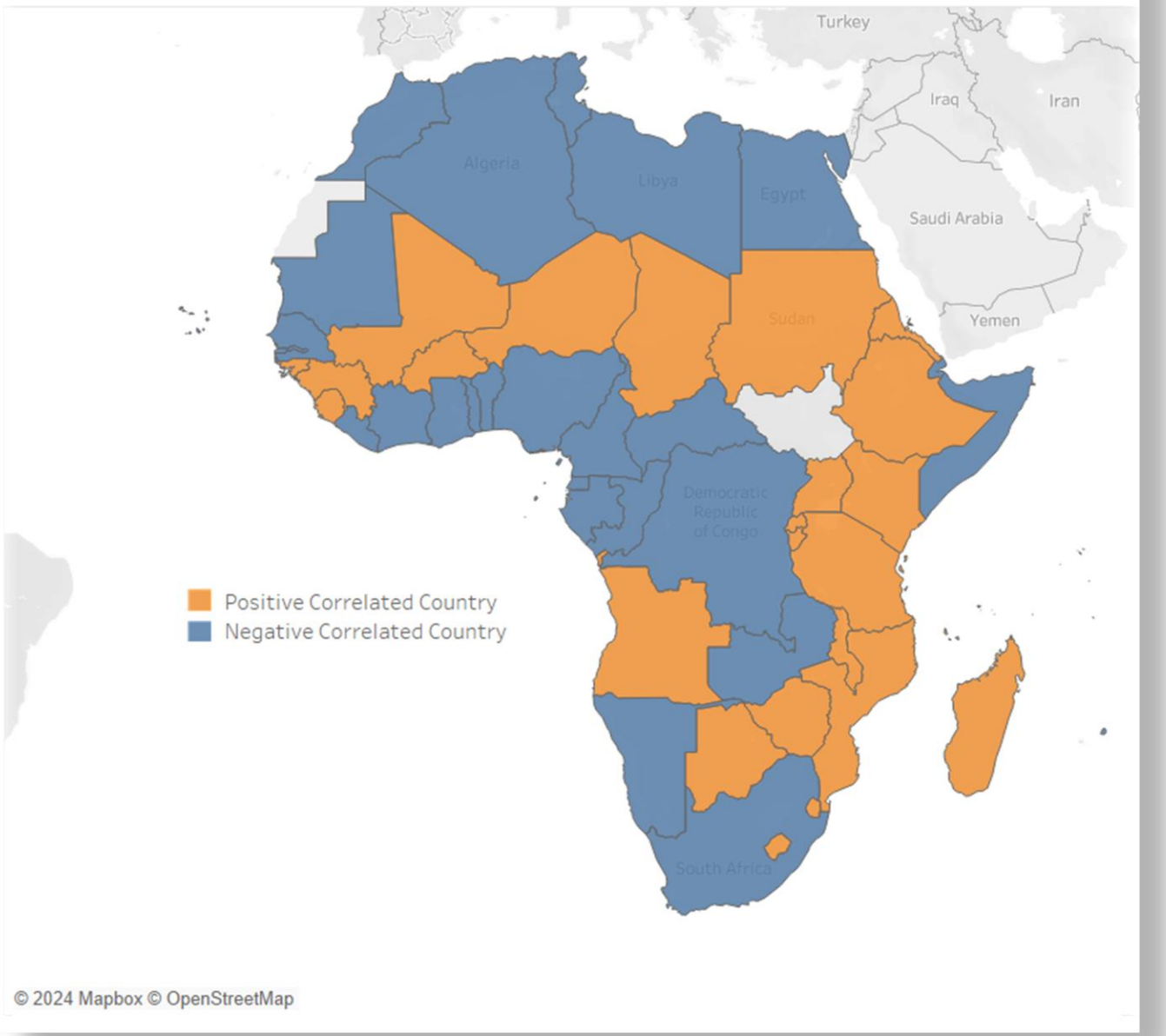


Americas



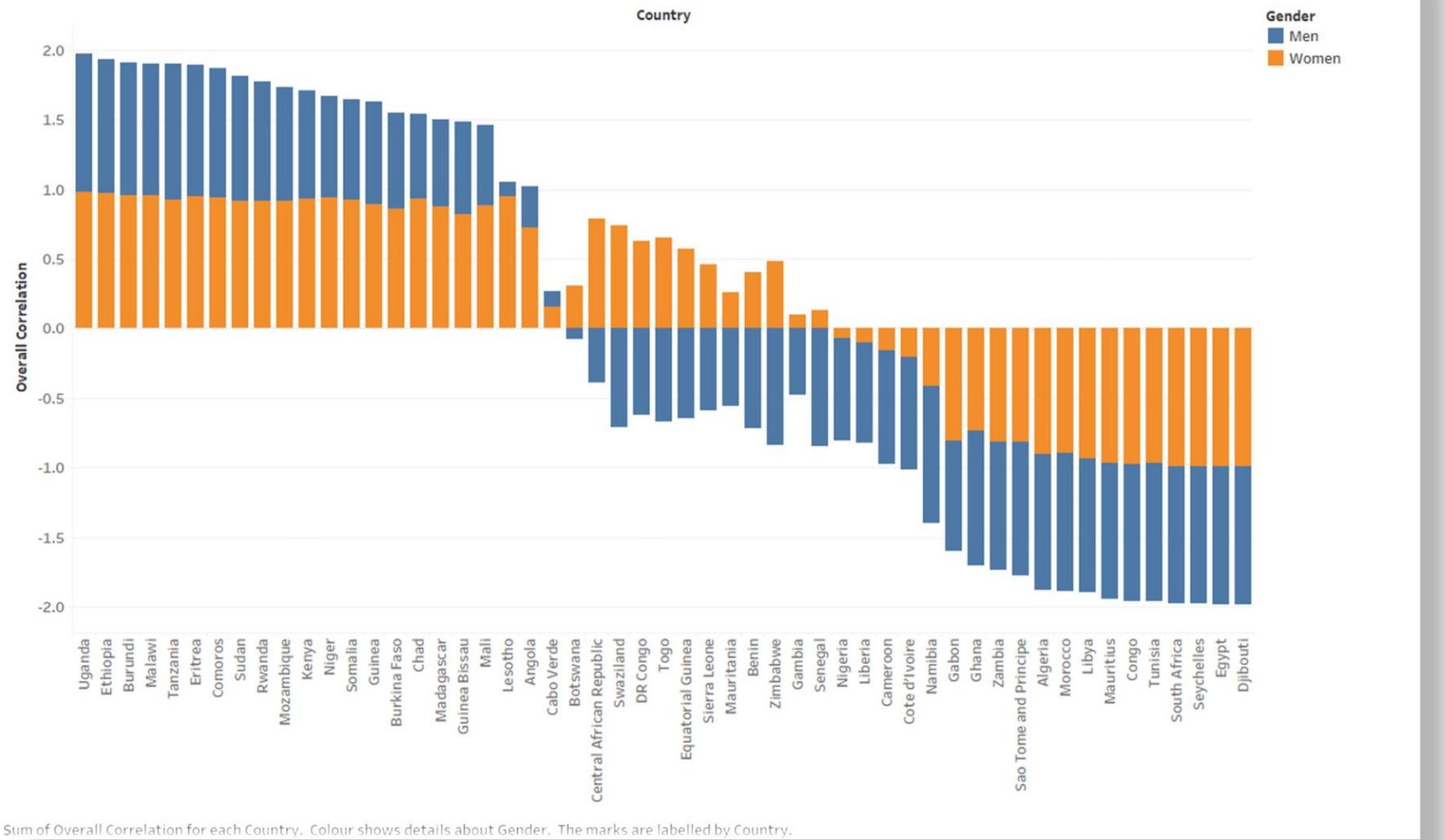

Africas
Average Correlation
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
Lesotho
Burundi
Niger
Guinea
Rwanda
Ethiopia
Mali
Malawi
Eritrea
Tanzania
Burkina Faso
Guinea Bissau
Mozambique
Uganda
Chad
Zimbabwe
Comoros
Kenya
Madagascar
Swaziland
Angola
Botswana
Sierra Leone
Sudan
Togo
Egypt
Nigeria
Somalia
Benin
Central African Republic
Cabo Verde
Morocco
Mauritania
Algeria
Tunisia
Gambia
DR Congo
Liberia
Senegal
Namibia
Equatorial Guinea
Cameroon
South Africa
Libya
Cote d'Ivoire
Djibouti
Zambia
Ghana
Gabon
Sao Tome and Principe
Congo
Mauritius
Seychelles

2.3b. Africa Focus



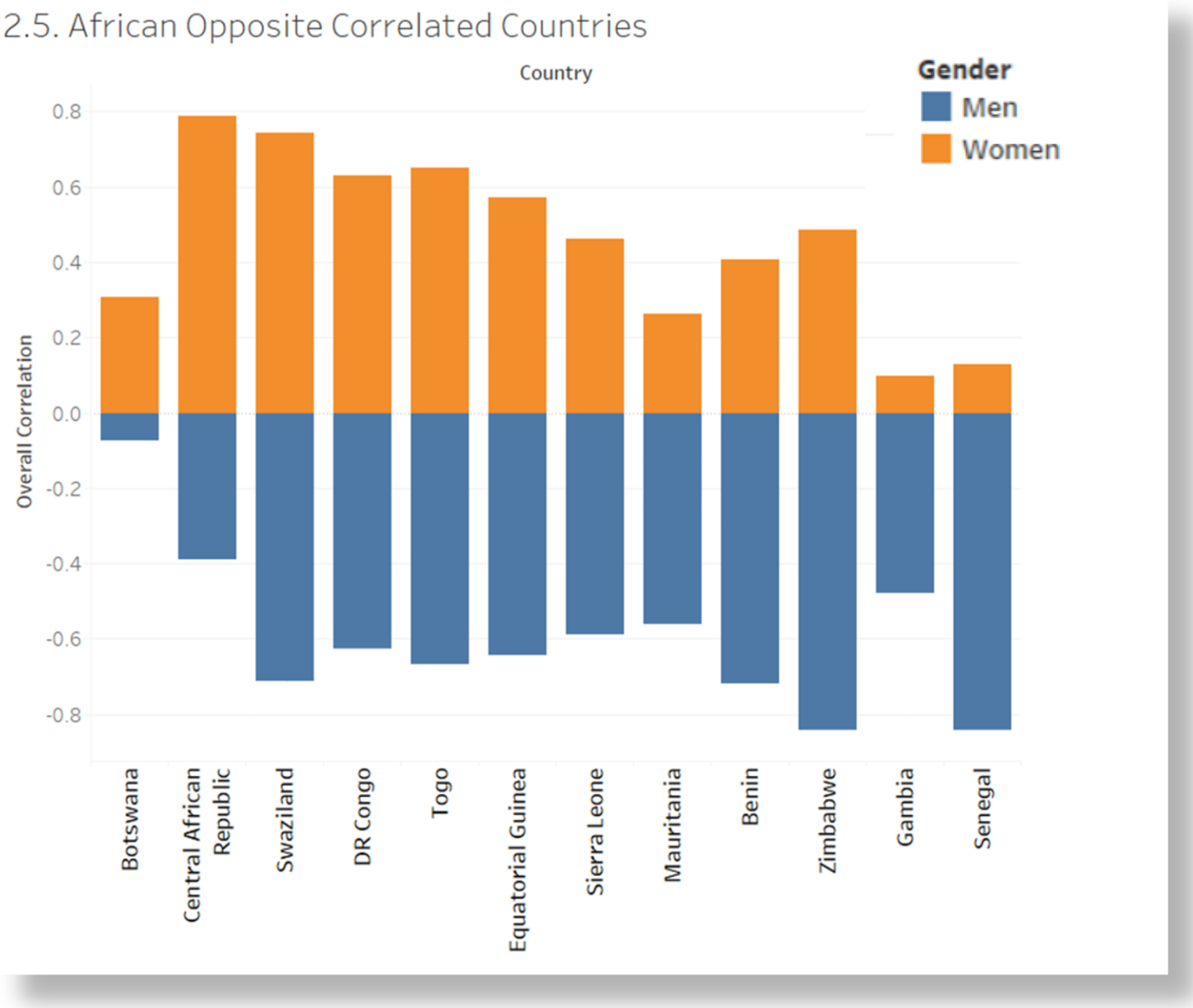
- In African continent both men and women and positive relationship for bmi and bp
- from 2000 - 2002 men started to had negative and women had positive relationship still 2002.
- starting from 2003 both gender start to have negative relationship.

2.4. African Countries BP-BMI Correlation (Men v Women)



Sum of Overall Correlation for each Country. Colour shows details about Gender. The marks are labelled by Country.

- Based on the results, we observe a positive, negative and mixed relationship between BMI prevalence and raised blood pressure prevalence for African countries between 1980 and 2014.



- Looking further into the countries with mixed relationship among BP and BMI.
- Swaziland shows much mixed variation among genders where men +0.7 and -0.7% women.