Current Inflation Rates

Data Visualisation - Homework 9

Oliver Rosbaek Elmgreen (3332 7726)

5th October 2022

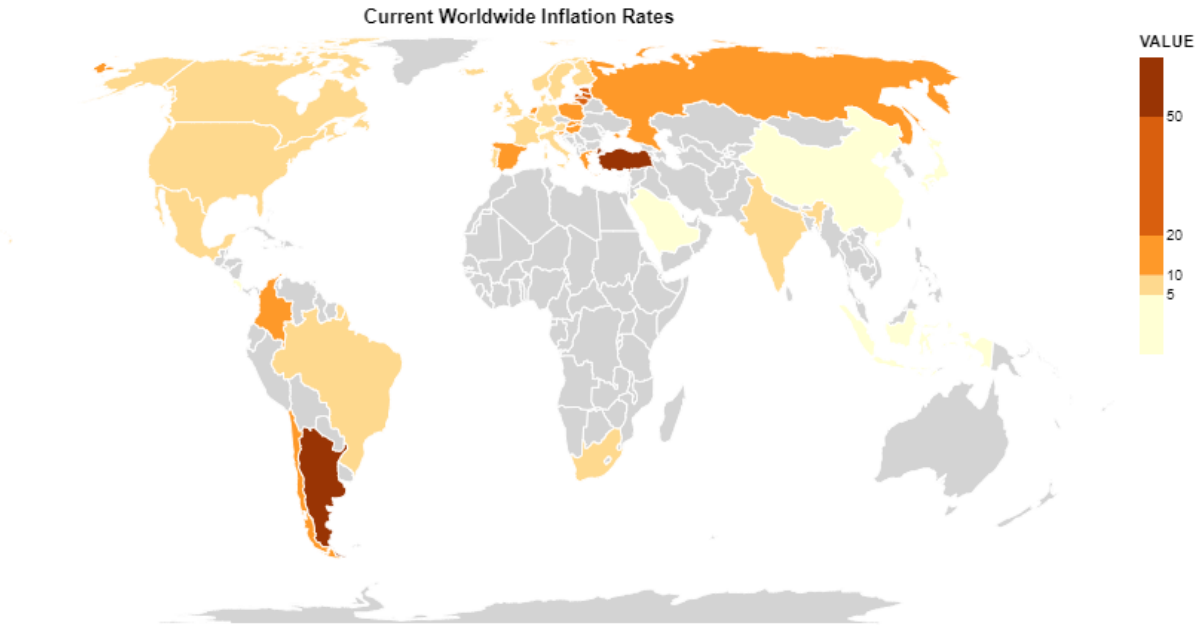

Figure 1: Screenshot of the published Vegalite visualisation on github: `https://fenriswulven.github.io/Data-Vis-Vegalite/`

Tutor: Jesmin Nahar
Lab: CL_Rnf-14.FIT&Sci_143

Domain

Worldwide Inflation Rates was chosen as the domain, due to the recent abnormal increases and the effect this has on everyones lives.

Dataset

The dataset is from OECD and describes the inflation rates for countries [1]. It contains several columns. Here are the attribute types:

- Location: Categorical/Nominal (Austria, Denmark, Brazil, etc)
- Indicator: Categorical/Nominal (CPI)
- Subject: Categorical/Nominal (Total, Food, Energy, Total less food and energy
- Measure: Categorical/Nominal (Growth, Index2015)
- Frequency: Categorical/Nominal (Monthly, Quarterly, Yearly)
- Time: Sequential
- Value: Ratio, continuous

The 1:110 million map geometry (topojson) was chosen for a less noisy visualisation of the country borders, and is downloaded from naturalearthdata.org and Jiaz hou Liu github repository [2].

Data transformation

No need for normalisation of the inflation rate, as only the most current value was used. There was, however, a lot of data preprocessing performed in python to clean the dataset. Only the most recent inflation rate was used (will save previous times for filtering next week). The total growth including food and energy measure was chosen as well as only the Consumer Price Index indicator and Monthly frequency.

Map Idiom

Choropleth was chosen as the data was attached to enumeration units (countries), was a "rate" of the percentage of change, and is a ratio datatype. A dot density would not make sense due to only having one value per country. A cartogram would be more theatrical and less informative, since the area of a country would be scaled. A symbol map would not work well with small countries in fx. Europe as the symbol could be larger than the country's area like in Estonia with a value of 24.7% inflation. The colour scale is custom made to be categorical and sequential, since the values range is 2.5% to 80.2% [3].

Bibliography

1. Dataset from OECD, last updated 09/22, last accessed 05/10/22, url: `https://data.oecd.org/price/inflation-cpi.htm`
2. World map with countries .topojson github dataset by Jiaz hou Liu, last accessed 05/10/22, url: `https://github.com/JiazhouLiu/FIT3179/blob/main/VegaLite/3_choropleth_map/js/ne_110m_admin_0_countries.topojson`
3. Colour brewer sequential 5 classes, last accessed 05/10/22, url: `https://colorbrewer2.org/#type=sequential&scheme=YlOrBr&n=5`

Appendix

Extra screenshots of the visualisation can be found here:

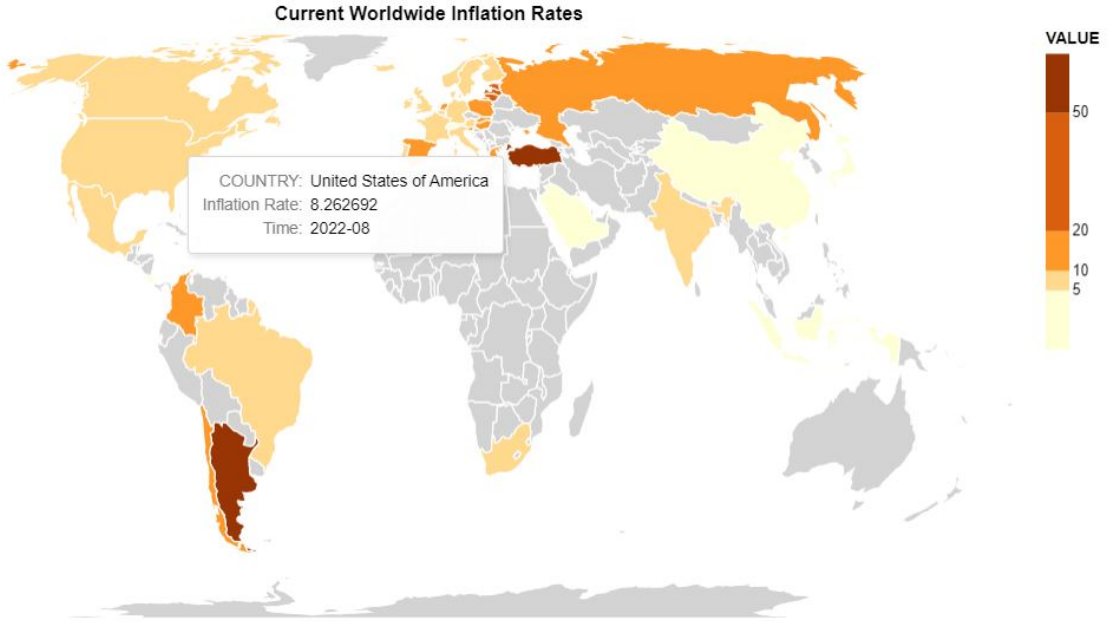

Figure 2: Screenshot 2 of the github published visualisation: `https://fenriswulven.github.io/Data-Vis-Vegalite/`

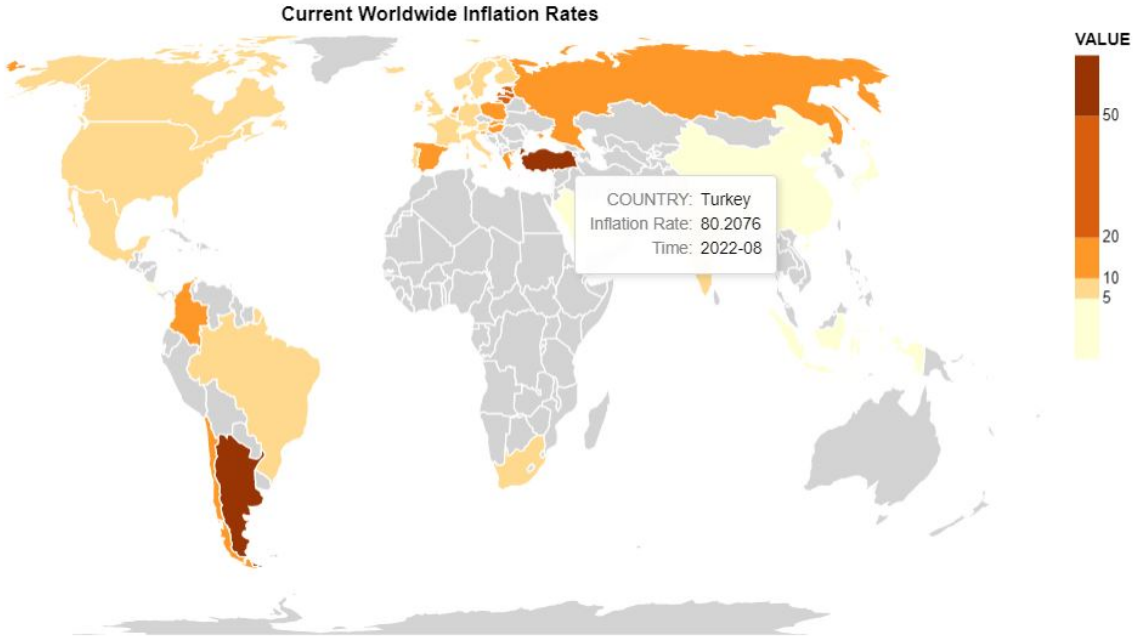

Figure 3: Screenshot 3 of the github published visualisation: `https://fenriswulven.github.io/Data-Vis-Vegalite/`