

At first I go through by exploratory analysis of the data. Here is the correlation of the indicators:

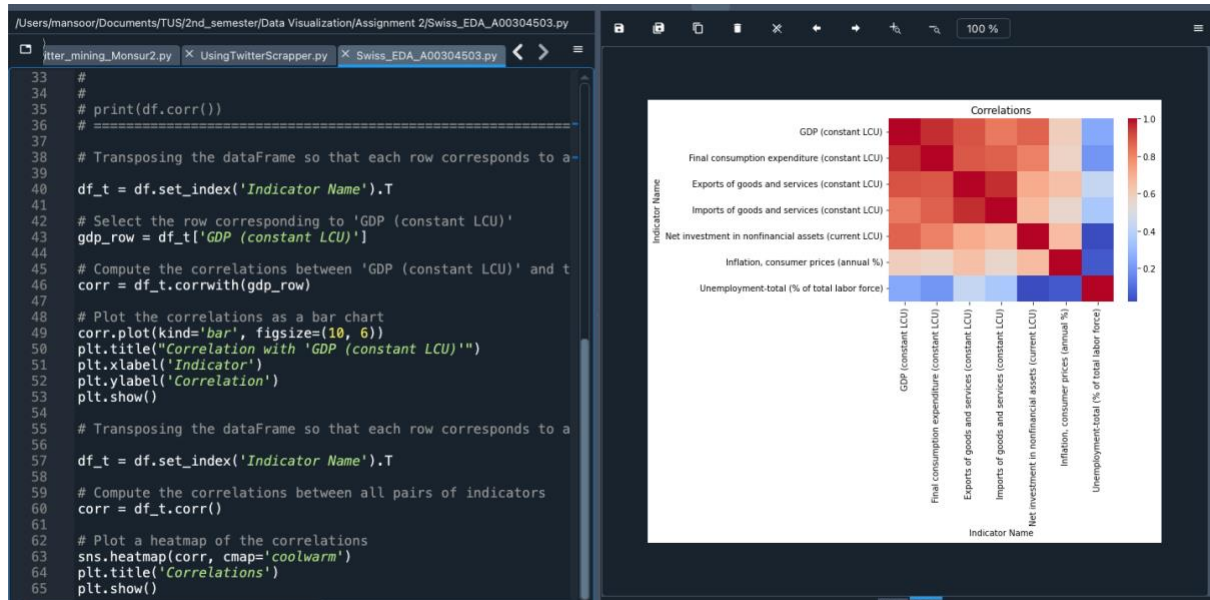


Fig: 2

Then using “plotly”, “Plotly Dash”, I have done all the visualizations. A full snapshot

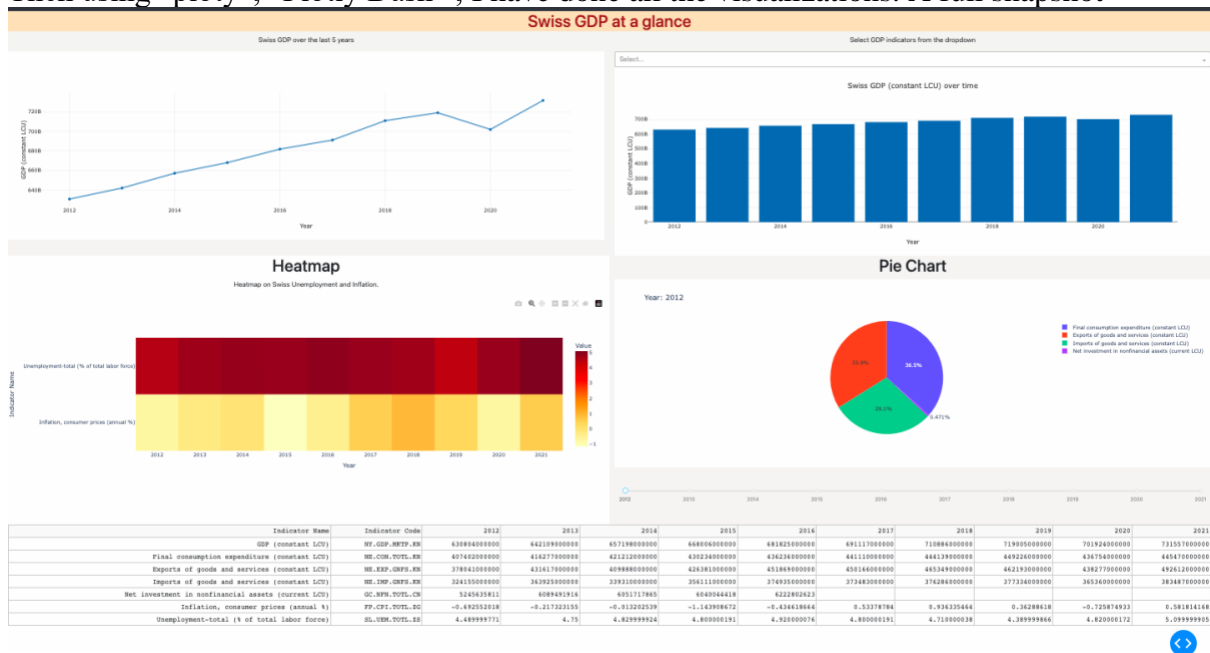


Fig: 3

I have chosen 10 years of data from 2012 to 2021. First graph on the left top corner shows the GDP over time. Here, X-axis is for years and Y-axis is for total currency (in Swiss).

There are 7 plots in 3 rows and 2 column layout.

The top-right plot comes with a dropdown menu with all the selected indicators. By selecting this, bar chart will show the changes of values from the data set by years. Like if I choose “Inflation” it will depict the bar chart like the figure below.

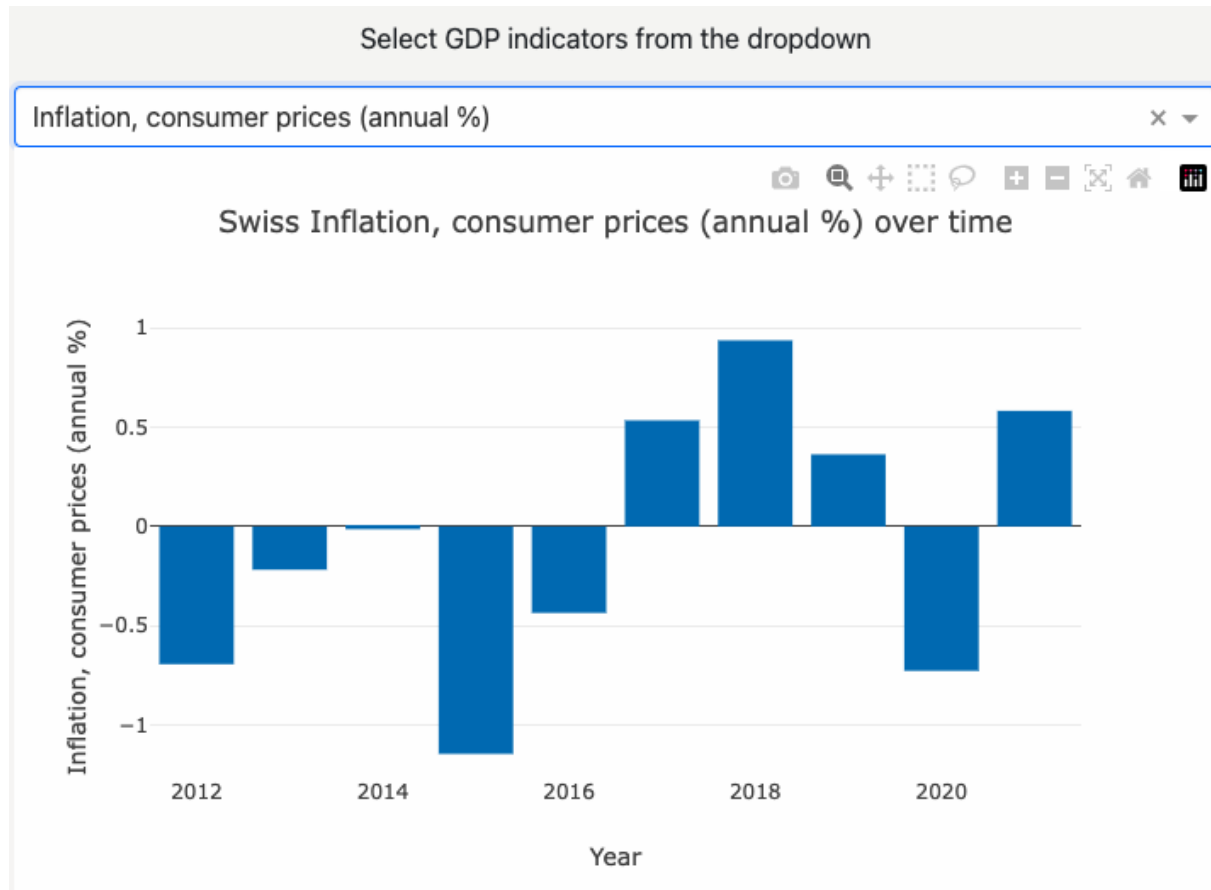


Fig: 4

Next one is a heatmap. I have chosen heatmap for inflation and unemployment data. I feel that these two indicators have the direct relation to GDP. By this heatmap, we can see the relationship between inflation and unemployment. Here is it:

Heatmap

Heatmap on Swiss Unemployment and Inflation.

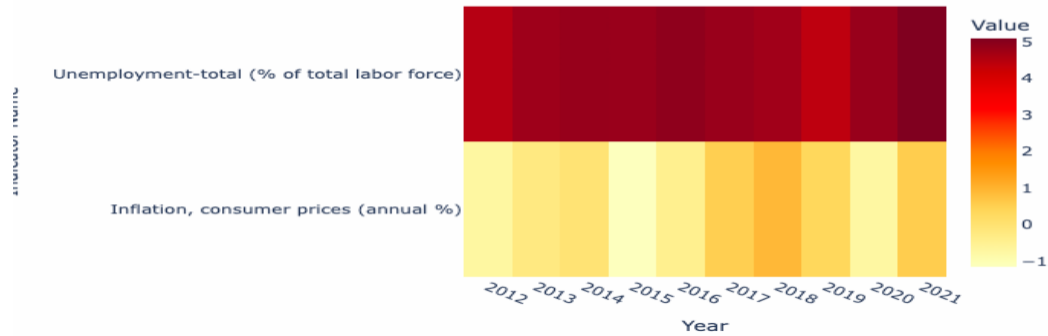


Fig: 5

Here, we can say that they are loosely related to each other. In 2015, while inflation is very low, unemployment was not quite low. In 2012, unemployment was higher, but inflation was in the lower side. Whereas, in 2018, both inflation and unemployment percentages are in the higher side.

Next, in the pie chart I have chosen just 4 indicators which are directly related to GDP calculation using expenditure approach. Here it is:

Pie Chart

Year: 2012

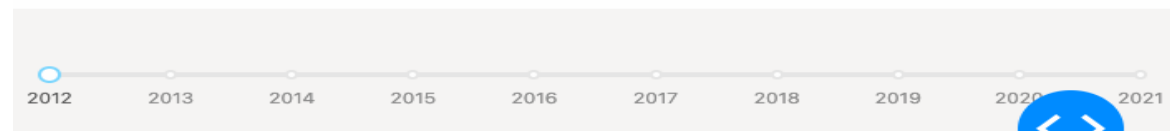
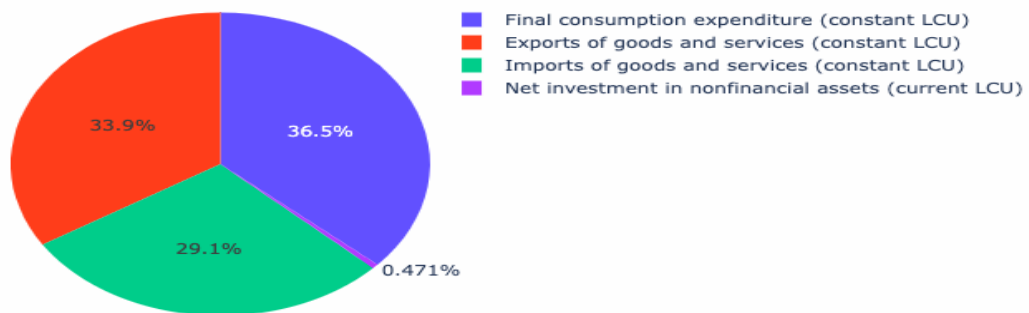


Fig: 6

A time slider is included for ease of the user to better understand the data.

At the end, I show the table itself using “plotly”.

| Indicator Name | Indicator Code | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| GDP (constant LCU) | NY.GDP.MKTP.KN | 630804000000 | 642109000000 | 657198000000 | 668006000000 | 681825000000 | 691117000000 | 710886000000 |
| Final consumption expenditure (constant LCU) | NE.CON.TOTL.KN | 407402000000 | 416277000000 | 421212000000 | 430234000000 | 436236000000 | 441110000000 | 444139000000 |
| Exports of goods and services (constant LCU) | NE.EXP.GNFS.KN | 378041000000 | 431617000000 | 409888000000 | 426381000000 | 451869000000 | 450166000000 | 465349000000 |
| Imports of goods and services (constant LCU) | NE.IMP.GNFS.KN | 324155000000 | 363925000000 | 339310000000 | 356111000000 | 374935000000 | 373483000000 | 376286000000 |
| Net investment in nonfinancial assets (current LCU) | GC.NFN.TOTL.CN | 5245635811 | 6089491916 | 6051717865 | 6040044418 | 6222802623 | | |
| Inflation, consumer prices (annual %) | FP.CPI.TOTL.ZG | -0.692552018 | -0.217323155 | -0.013202539 | -1.143908672 | -0.434618664 | 0.53378784 | 0.36335 |
| Unemployment-total (% of total labor force) | SL.UEM.TOTL.ZS | 4.489999771 | 4.75 | 4.829999924 | 4.800000191 | 4.920000076 | 4.800000191 | 4.710000 |

Fig: 7