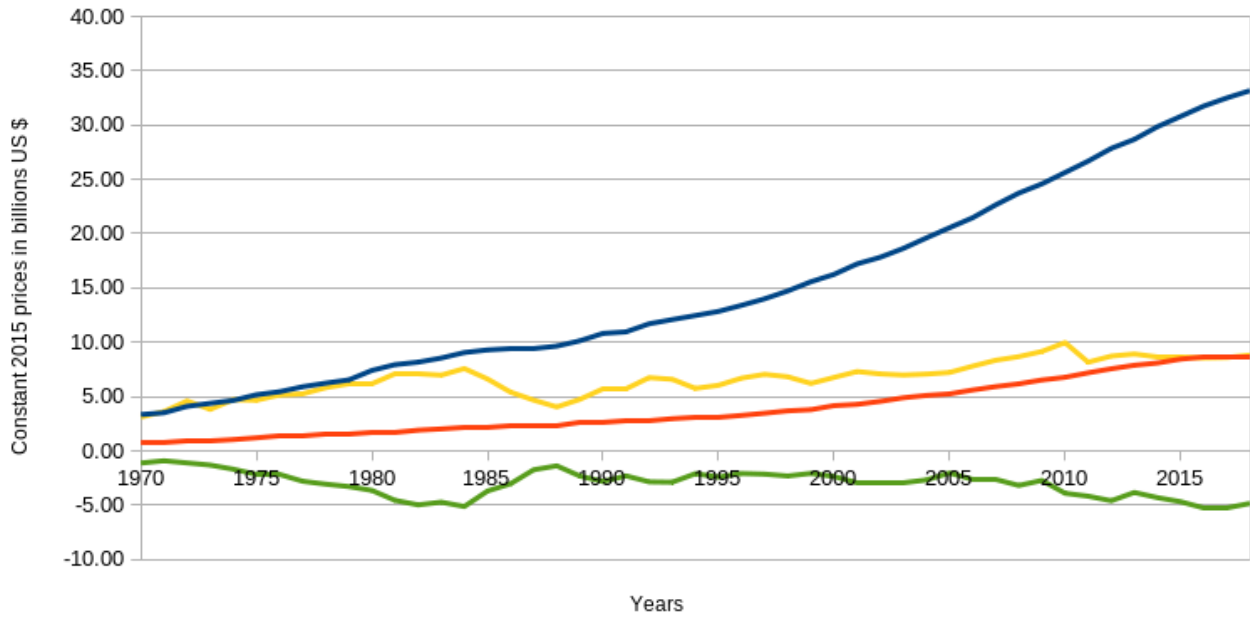
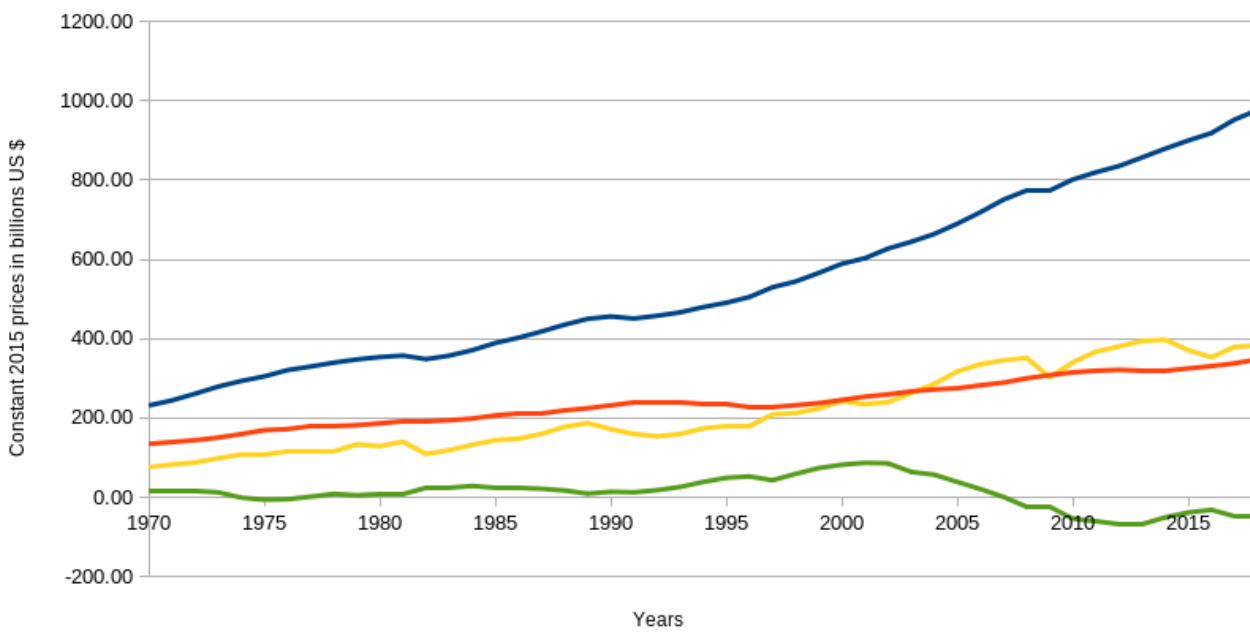


Assignment 1

GDP Components for Tunisia



GDP Components for Canada

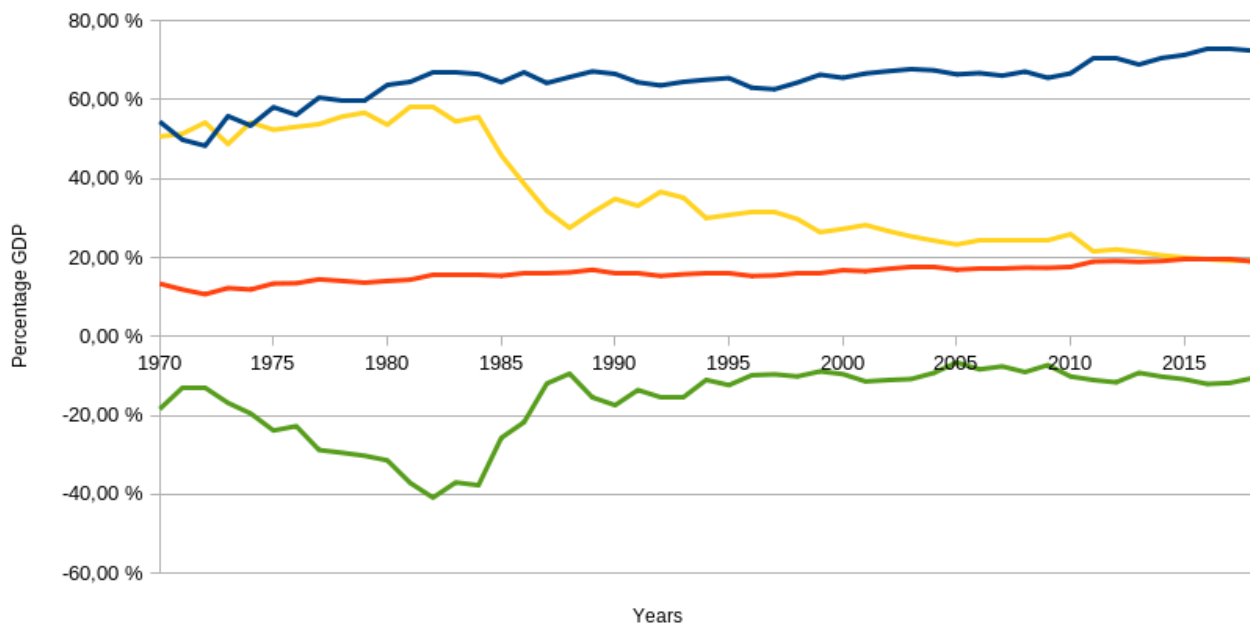


Legend:

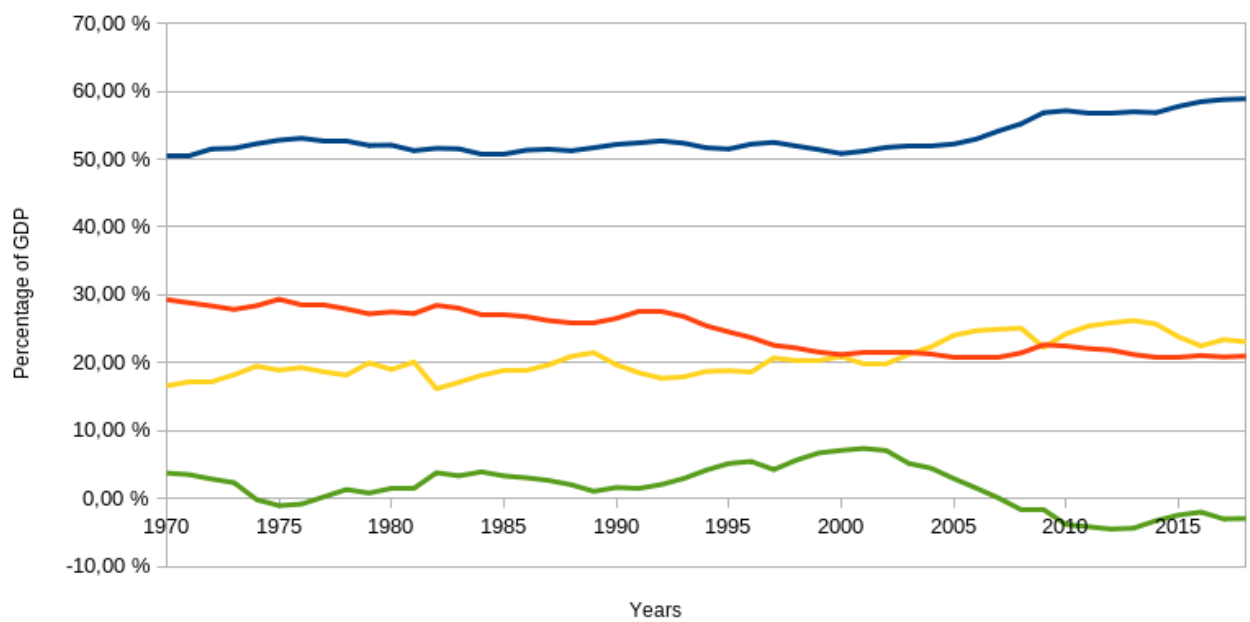
- Household consumption expenditure
- General government final consumption expenditure
- Gross capital formation
- Net export

Assignment 2

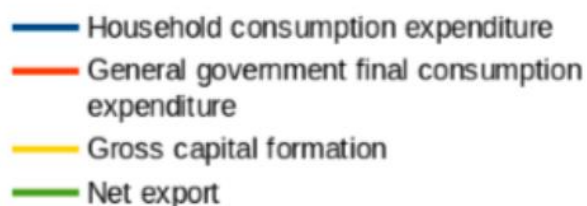
Proportion of GDP components for Tunisia



Proportions of GDP components for Canada



Legend:



Assignment 3

The graphs under the label “Assignment 2” represent the evolution of the proportion of each component for Tunisia and Canada over time (1970 to 2018).

First, we can see in the data for Tunisia that the components are the following in terms of importance due to their proportion: consumption, investment, government expenditure and net exports. The four components keep the same order during the whole period studied except for the investment and government spending curves that are equal from 2014 to 2018. The proportion of the households’ consumption has overall increased by almost 20% (from 55% in 1970 to 75% in 2018, the government’s expenditure has slightly increased during the whole period (15% in 1970 and 20% in 2018)). The biggest changes have occurred in the component representing investment, in other words firms’ spending on new equipment and buildings, and the net exports, which corresponds to the difference between exports and imports. It can be observed that the gross capital formation line experiences a dramatic decrease between 1983 and 1987. During the exact same period, the curve representing the net exports a symmetric change (this time an important increase). By looking at the historical aspect of Tunisia, we can see that these changes occur at the end of Habib Bourguiba’s period of power. In 1987, Zine el-Abidine Ben Ali became the president, then dictator 2011, Tunisia being the start point of the Arabic Spring. This is important to note for the investment expenditure, since these changes occurred during a political leadership change and government instability. The same occurs, but less dramatically than in 1987, in 2011 and the following year. The increase in the net export proportion can probably be explained by the fact that the most important sector in the economy is tourism, which is also counted in the exports. It is still important to remember that even though the net export curve increased in 1983, its impact on the GDP calculation is negative (there are still more imports than exports).

Second, we can see in the data for Canada that until 2003, the order of importance (in terms of proportions in the GDP) are consumption, government spending, investment and net exports. In 2003, there was a swap between government expenditure and investment, even though the two curves remained very close through the rest of the period studied. The proportion of the households' consumption expenditure increases slightly over time, moving from 50% in 1970 to 60% in 2018. On the other hand, the government spending's importance decreased by 10% over the period studied (30% in 1970 to 20% in 2018). The investment expenditure curve has been unstable, but stayed almost the same as well, by increasing by 5% or 6% during the total period. The net export proportion has been the most unstable one. It was positive between 1970 to 1974, 1977 to 2007. The rest of the time, the net exports have been negative (the lowest value for the proportion was in 2012: -4%).

These two graphs show that all the components have a different importance in each country, even though there are some similarities. Indeed, the first thing that comes into sight, is the importance of household consumption expenditure. It represents more than a half of the GDP over the whole period, but we can also observe that this proportion is even more important in the Tunisian GDP. The second trait that comes into sight is the large difference between the investment part in the Tunisian calculation compared to the Canadian GDP. It was almost 50% in 1970 in Tunisia, only 18% in Canada the same year. However, these numbers tend to become closer, and change trends since they represent 30% of the Canadian and only 20% of the Tunisian GDP at the end of the period (2018). Third, we see that the proportion of the government spending is not the same at the beginning (30% for Canada, 20% for Tunisia) but equal in 2018 (20% for both countries). Fourth, we can see that even though the other components were similar for both countries, it is not the same for net exports. Each country has a completely different shape, and proportion (Tunisia is only negative in this aspect), this is probably explained by different history, sectors, production and life style of the inhabitants.

Assignment 4

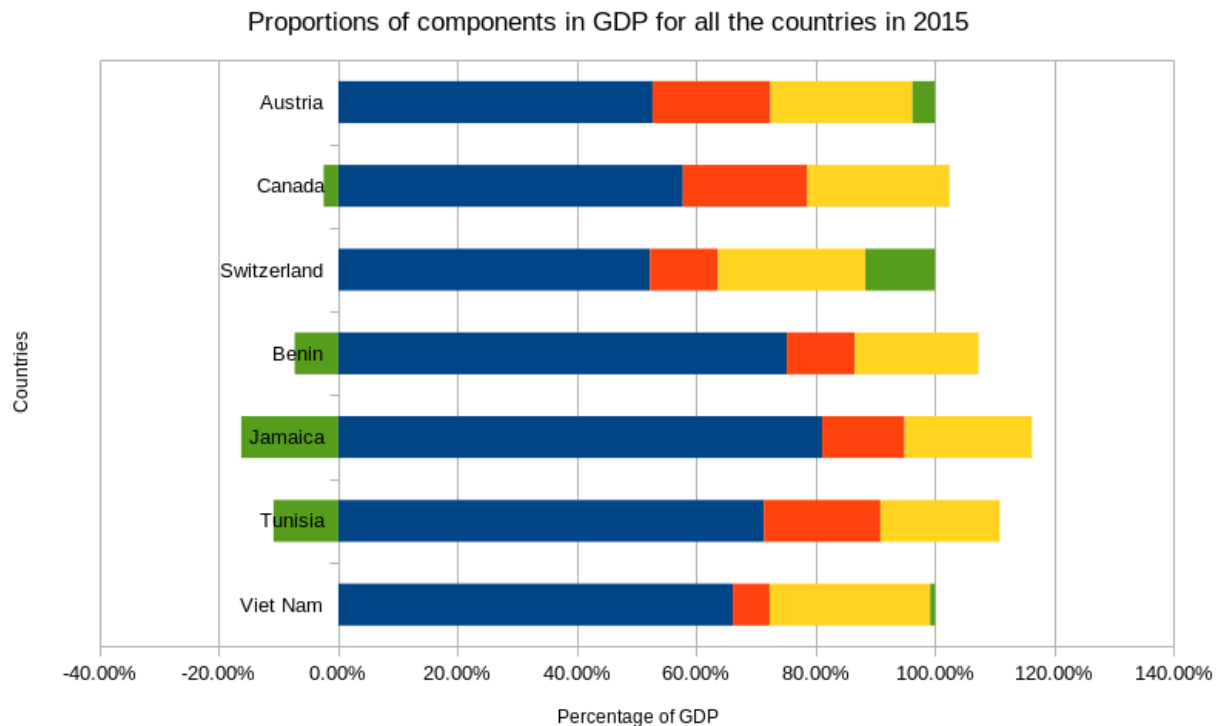
The biggest advantage from using charts in proportions over charts in levels for making comparisons over time and between countries, is that it helps to examine the importance of each factor in the calculation of GDP since the figures have the same scale.

We can for example see in the chart in proportions that household consumption is more important (10% to 15% more) in the Tunisian GDP compared to the Canadian. In contrast, we understand from the chart in levels that the household consumption in the Canadian GDP 30 to 40 times greater than in the Tunisian one. We can see that these observations give different conclusions, but most importantly describe different patterns.

However, in my opinion, looking only at the charts in proportions is a flaw in the analysis since it gives the visual impression that the situation is the same. However, as we can perfectly note from the charts for the first assignment, there is a huge difference in GDP level between Canada (developed country) and Tunisia (developing). The scales are not the same at all. For Canada, the biggest component is the household consumption expenditure which has a value of 1 000 billion us dollar (at 2015 constant prices) in 2018 compared to only 35 billion us dollar (at 2015 constant prices) the same year for Tunisia. This applies as well to the other components in both figures. Of course, the number of inhabitants is not the same between Tunisia and Canada (more than 3 times more people in Canada). Nevertheless, the value of consumption is more than 28 times greater for Canada.

Therefore, I think that it is not charts in proportions versus charts in levels: both are significant and essential to have a better understanding of the phenomena.

Assignment 5



Legend:

- Household consumption expenditure
- General government final consumption expenditure
- Gross capital formation
- Net export

Assignment 6

The graph above (in assignment 5) represents the proportion of each component in the GDP in 2015 for all the countries I chose. For this project, I decided to choose Austria, Canada and Switzerland as the 3 developed countries, and Benin, Jamaica, Tunisia and Viet Nam as the 4 developing countries. We can observe that during this year, the proportion of the household consumption expenditure component is larger in developing countries than in the developed one (more than 60% for Benin, Jamaica, Tunisia and Viet Nam and less than 60% for Austria, Canada and Switzerland). We can also see that it is almost the net export is negative (and has a high negative impact) on the proportions of developing countries, to the exception of Viet Nam that has a positive (and very small) proportion of net export and to the exception of Canada that has a negative proportion for the net export (but rather less important compared to Benin, Tunisia and

Jamaica). We can see that the proportion for the gross capital formation is rather similar between the 7 countries, and the government expenditure varies differently across the 7 countries.