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Information Visualization

Prof. Handler

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Homework 3

Azerbaijani Economy Shares
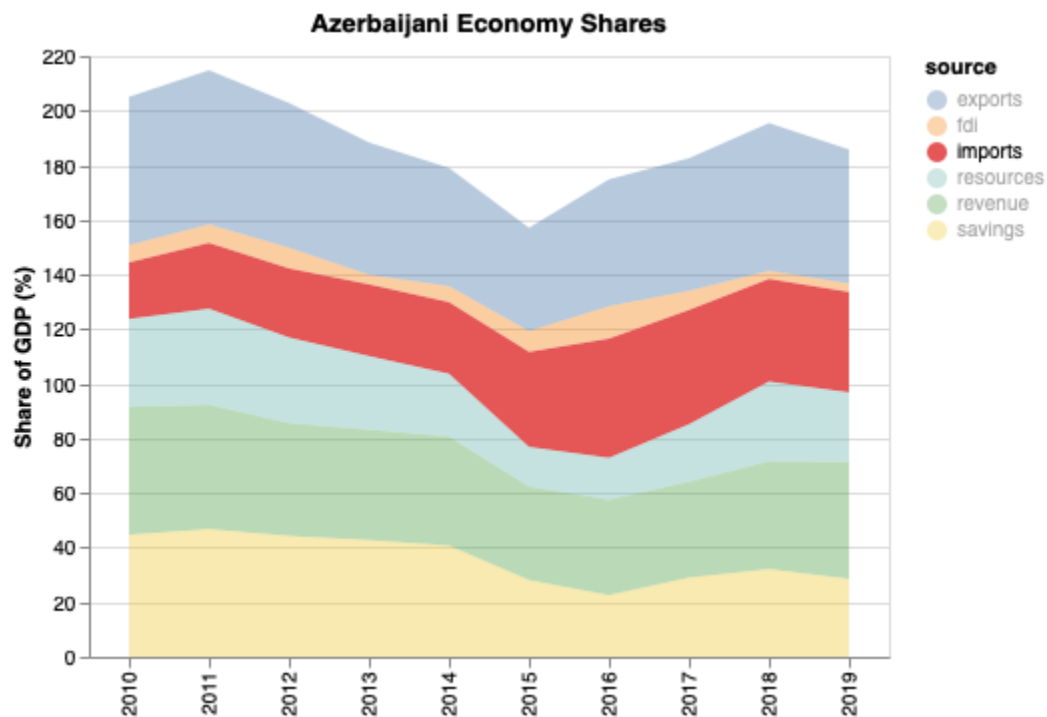
For my data, I decided to compile some economic information on various countries in the 2010s. For

both my visualizations, I decided to look at Azerbaijan as Azerbaijan has data for all years. I really wanted to try

and show the different aspects that make up the entire economy, such as savings, trade, foreign business, and

money made from resources. I figured a stacked area chart like this one would do a good job of showing the

changes in different economic sectors over time.

I really like a couple aspects of this plot that, in my opinion, make the chart more insightful and useful. First, the use of color clearly separates the different categories in an intuitive fashion, and the sorting of the colors in the legend makes it easy to read as well since the positioning correlates with the sector positioning within the chart. Next, I made the visualization highlightable, which is shown by the different opacity between sectors in the chart. I think this helps viewers readily understand how each sector's magnitude changes over time, for it can be difficult to separate each section from each other without any ability to highlight what area to look at. I wish I could make the chart interactive in a Google doc, but this task seems more difficult than I can manage.

There are, however, a few things that could be better with this visualization. First, I don't like the x-axis tick mark orientation, for if the years were flipped 180 degrees, it may be easier to read these labels. Next, the share of GDP goes above 100%, which is slightly confusing and makes it hard to exactly quantify how much GDP each sector contributes. Last, the legend could be slightly better as each legend item is undercased and does not necessarily display much elegance. Nonetheless, I am quite proud of this visualization as, within Vega, the interact-ability makes this chart quite useful in my opinion.
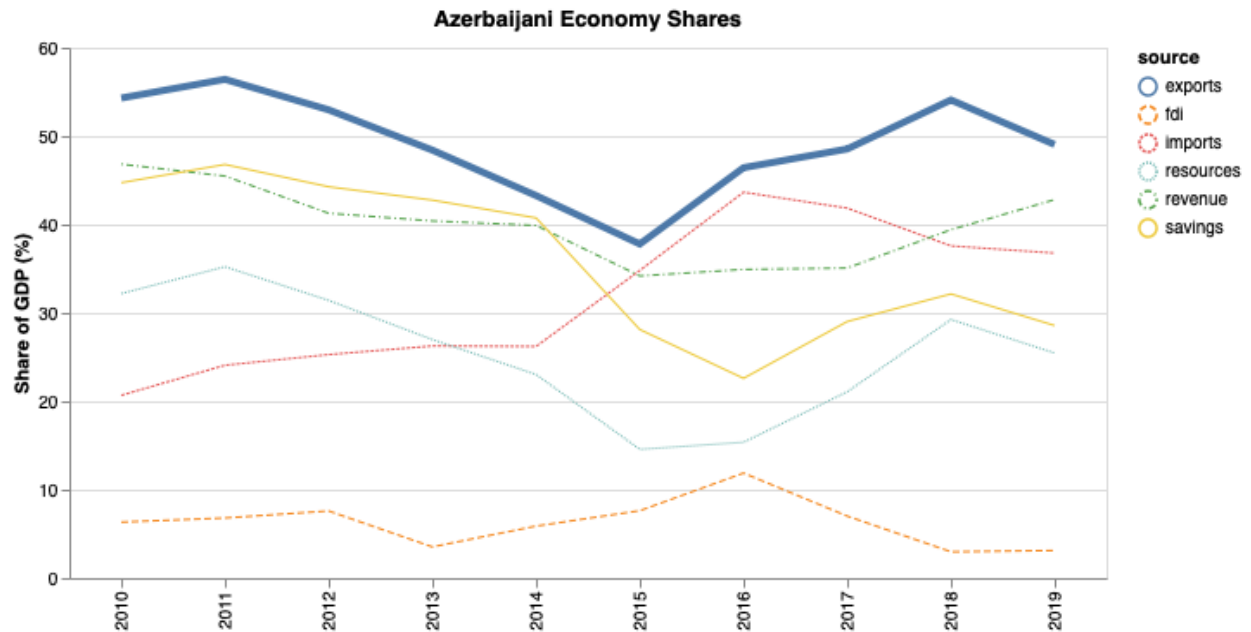
For this visualization, I decided to try and do a similar task as the previous visualization. I tried to improve upon the last one a bit by using a line chart instead, though. Again, there are a few things I enjoy and dislike about this visualization.

I really like that this visualization gives each economic sector its own line, for this gives the y-axis a much better scale that gives a more accurate representation of the magnitude of each sector's GDP share. This also makes it so that the share of GDP, which is a percentage measure, does not exceed 100%, and this is better for this visualization's purpose of displaying GDP shares over time. Next, this chart is also able to be interacted with within Vega, but I tried to show this aspect by highlighting the "exports" line at the top. I think this also helps to separate out each category and look at each economic sector individually. Last, the different strokes of each line make it even more readable.

The few things I dislike about this plot are fairly similar to my dislikes for the last plot. First, the legend is a bit juvenile, for it could be more professional in uppercase and maybe with a different name than simply "source." Second, I don't really love the gridlines within the chart as it is somewhat distracting and fills space,

but some viewers may find this helpful. Finally, I would have preferred some different line types than some of the weird dashed ones, such as the one for resources. This line is much less prominent than the other ones, but I hoped to make up for this shortcoming by making the chart highlightable. I am quite proud that I was able to pull off these two visualizations, especially this one. It is a bit harder to make interactive charts in Altair, but it was fun to learn how to add things like highlights and zooms to some of my plots, some of which didn't make the cut for my homework. I think that after this homework I feel that Altair is the most useful and intuitive tool from this class.