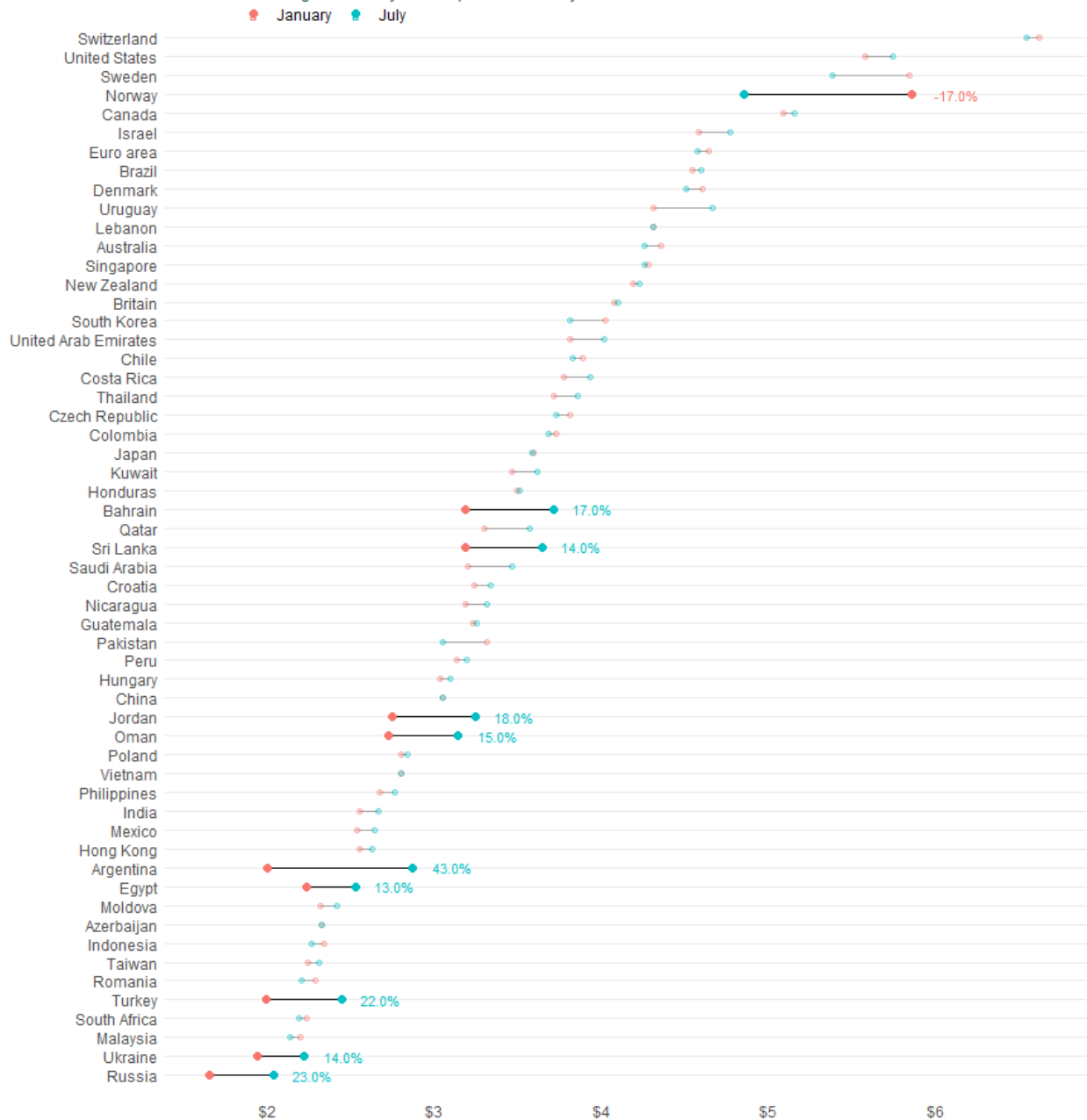


Big Mac Dollar price in 2019

Across 56 Countries, ten saw a 10% or greater change in big mac dollar price from January to June in 2019. The people of Argentina saw the highest price increase, where a big mac cost 43% more in July vs January while the people of Norway rejoiced as they paid 17% lesser for a big mac in July as compared to January.



1) I created a Cleveland dot plot to visualize dollar price changes from Jan to July 2019 across all countries. Given the Big mac dataset, I noticed a lot of price metrics. I wanted to visualize dollar price change for the latest period in the data across countries and see how the big mac prices varied across countries. Since there are a lot of countries and I wanted to visualize 2 measures at the same time (price change and price) I felt that the Cleveland dot plot would fit perfectly. The use of dots instead of bars helps use lesser ink and reduces clutter in the visualization. This was a major selling point for me since there are data of 56 countries to look at in one go. The quantitative message from the visualization is

that we observe 10 countries that saw a price change of >10% from Jan'19 to July'19. Among these, we can easily note the biggest increase in price was for Argentina (43%), and the biggest price decrease was seen in Norway (17%).

In terms of data transformation, I created a year column from the date column to easily filter the data. I also created a month column, since I would be visualizing the dollar price change from Jan to July in 2019. I created separate data labels in R to display the price changes on the chart and to take care of formatting and preventing the labels to overlap in chart. I filtered out those countries that had a change in dollar price of >10% so that I could only highlight those countries and their labels in the chart. In the ggplot function, I specified dollar price as X axis and Country in Y axis. I used the reorder function on country name so that I could see the countries displayed in descending order of dollar price. I used the geom_point() for the dot plot and used the geom_line() to plot the line between the dots. I used the geom_point() and geom_line() functions twice – once for the highlighted countries (with bigger size values) and other for the total data (used the alpha value to make the others more transparent). I colored the dots by Month. I changed the scale of the X axis to make sure I could see the price changes clearly in the chart. I added a title and subtitle to tell the viewer about the chart. Lastly, I used the minimal theme so that the chart looks clean and uncluttered and got rid of unnecessary grid and axis lines as well as legend title and background.

2) I created a version of the diverging bar chart, called the population pyramid chart to see where the World's best performing CEOs are from and if having an MBA was a prerequisite for them to be ranked as the best. Looking at the HBR CEO dataset, there were a lot of categorical variables and rankings of the top 100 best performing CEOs. I wanted to understand if there was a pattern among these CEOs in terms of where they came from and their education. I felt the use of the population pyramid helped to easily visualize the count of CEOs by both country and MBA education. The chart depicts the differences among categories very well and the color helps indicate how many of the CEOs had MBAs. The quantitative message here is that there is a clear pattern that 1 country (US) has produced 49% of these CEOs. Another part of the message is that majority of the CEOs did not have an MBA, which is quite interesting.

For the data transformation, I first imported the data and fixed the headers, since they had special characters. I then filtered out the last few rows in the excel sheet, since this was not data but rather footnotes about the data. I created a table of Country wise, MBA wise count of CEOs, for ease of use in the plot. I created another country wise CEO count table sorted by ascending order, which I used to order the country axis in the plot. In order to get the bars to show on opposite side of the axis, I multiplied the MBA= yes counts by -1, so that all those bars would be plotted on the left side of the axis. I specified the country field as x axis and CEO count as y axis. I colored the bars by the MBA field. I also changed the bar width to make the bars look thinner. I specified a predefined axis setup so that the count axis would show positive values on both sides instead of negative values on 1 side. I used this axis setup to scale the y axis as needed. I then flipped the axis using coord_flip() to make the chart look like a pyramid instead of a regular bar chart. I specified a title and subtitle to give the viewer a quick brief on the chart. I used the theme_tufte(), which gives the chart a cleaner sophisticated look. I also got rid of the axis tick marks and changed the color palette to use a more contrasting color.

The Best-Performing CEOs in the World - 2018

Among the top 100 best performing CEOs in 2018, 49 of them are from the US!

Contrary to popular opinion, majority of the world's best CEOs did not have an MBA degree.

