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Mini Project 2

Visualization 1

In visualization 1, I chose to use a heat map to represent the amount donated vs. amount received over time for all countries. The color of each cell represents the net amount donated for each year (amount_donated - amount_received) and the value is normalized between [-1, 1], relative to each country. By doing this, it is easier to see the trend for each country, as well as whether the country mostly donates/receives across time. The countries on the y-axis are sorted based on the average net amount, which creates a separation of countries into major donors and major recipients. One downside to normalizing the amounts is that it loses the true net value, but since there are some countries that received/donated a large amount a certain year, they skewed the scale. If left unaltered, most countries' cells would be faded out and hard to read. Overall, I believe that this approach answers all of the questions in the prompt reasonably well.

Visualization 2

In visualization 2, I chose to use multiple line charts to show how the top 10 purposes of disbursement change over time. Originally, I thought a single line chart would be sufficient, but after creating the visualization in D3 I saw that a few lines skewed the scale for the other lines. I included a screenshot of the original D3 chart for reference. This was verified in Tableau as well, which is where I made my sketch. So when I broke up my line chart into multiple line charts, I scaled the y-axis for the three purposes that had the largest single year amounts to a larger max value than the other seven purposes. This allows for greater detail to be seen on the seven purposes with smaller amounts each year. The two different scales are emphasized using the color of the line (and indicated with a legend in the top right corner). I wanted to do something slightly more subtle, such as just bold the top value on the y-axis, but I could not figure out how to easily do that in D3. Overall, I feel that this approach is sufficient for answering all of the questions posed in the prompt. Also, when I took screenshots of the D3 visualization, I needed multiple images since it was too cramped to fit all of the charts on a single screen. Each one is labeled in order from top to bottom (part1 to part5).

Visualization 3

In visualization 3, I chose to use a heat map similar to visualization 1 for answering the questions in the prompt. I picked France as a country that has a history of sending a lot of donations to many different countries. Each cell of the matrix uses color to encode the amount received by that country, normalized between [0,1] for each country. Normalization was again done to show the trends better, since some countries received amounts that skewed the data. The countries were sorted based on popularity, which means that countries that received the donations for more years were near the top rows of the matrix. I chose to do it this way since it

shows a unique pattern in the data. For a 10 year stretch between 1994-2004, France changed the usual countries it donated to, placing emphasis on new countries that only received amounts during this decade. It is unclear why that happened, but it is only obvious when the data is sorted this way. I also tried sorting it by average year amount received, but the ordering seemed less interesting. Overall, I believe this visualization is sufficient for answering the questions in the prompt, so long as you are not interested in specific amounts, but rather general trends and proportions.