#### Instruction

1) Please describe your experience designing/implementing data visualizations and animations of the visualizations. How many years of experience do you have? How often do you create visualizations and animations?

A little over 2 years of experience. I author or interact with visualizations regularly, but rarely create animations for them. Even when authoring interaction techniques, animations usually come as a final polishing touch, if at all. The last time I implemented a more sophisticated suite of animations for a project was over 2 years ago (in d3).

Here are the different stages of visualization LINK (ANONYMIZED TO GET REVIEW) (The white circles represent the countries.)

Imagine that you're an animation designer such that you want to design the animation for the transitions between the stages.

2) Please explain how you're going to animate the *graphical components* of the visualization with the *timing information*?

# Between 1st and 2nd stage:

1 step total. I would probably expand the y axis into existence at the same time I am transitioning the dot plot into the scatterplot space.

## Between 2nd and 3rd stage:

3 steps total. I would first color + expand the points of interest. Next, I would fade out all other points and introduce the text labels for the points of interest. Finally, I would draw the path for each country. I would probably not stagger per country.

### 3) Could you think of another animation design?

(You are free to assume: more/less number of data, shorter/longer animation time, different data distributions, the different number of cardinality (the number of categories), or the different message/task that you want to convey through the transition.)

If there were more than 5~ points of interest, the described animation for stage 2 to 3 may be overwhelming with all the paths being drawn at the same time. We could stagger per country or per group, though my concern there is that animation length would increase drastically.

If we wanted a shorter animation time for stages 2 to 3, we could not stagger the steps of the animation or group them into 1 or 2 steps instead of 3. For example, color + expanding points of interest occurring at the same time as fading out other points and introducing text labels.

We could also stagger the animation steps for stages 1 to 2, though this could perhaps be confusing (if an axis appears before the points move or the points move without an axis appaering).

Here is one version of the animation for the transitions. LINK (ANONYMIZED TO GET REVIEW)

4) Please list the changes of the visualization *graphic components* along with the *timing information*.

Note that this animation does not follow my initial understanding of the progress of stages. 1) I wasn't expecting the points to move so much along the x axis between stages 1 and 2, (is the encoding changing?) 2) I got the transition between stage 2 and 3 wrong (thought there was no progress of 'time' and the path was the 'future path' of each country).

### Between Stage 1 and 2:

- 1. Y axis appears.
- 2. Points move to positions in X Y space. (not sure why they are moving so much in X space...)

Between Stage 2 and 3.

- 1. 1st quandrant is highlighted.
- 2. Trendline is drawn.
- 3. Points are staggered in highlighting and then movement along path (did not think of overlapped staggering in animation design, I like that).
- 4. Text label appears at the end of each movement.