

## Part A. Visualization Summary

In this part, I recreated Hans Rosling's Gapminder visualization to explore the relationship between GDP per Capita and Life Expectancy across countries from 1952 to 2007. The bubble chart is animated by year, where bubble size represents population and color represents continent. This allows us to observe how global development has changed over time in a dynamic and comparative way.

A clear global trend appears: countries with higher GDP per Capita tend to also have higher Life Expectancy. However, the pace and magnitude of improvement differ significantly by region. For example, many African countries show slow growth in life expectancy despite economic changes, while European and Oceania countries cluster in the upper-right region with consistently high income and long lifespans.

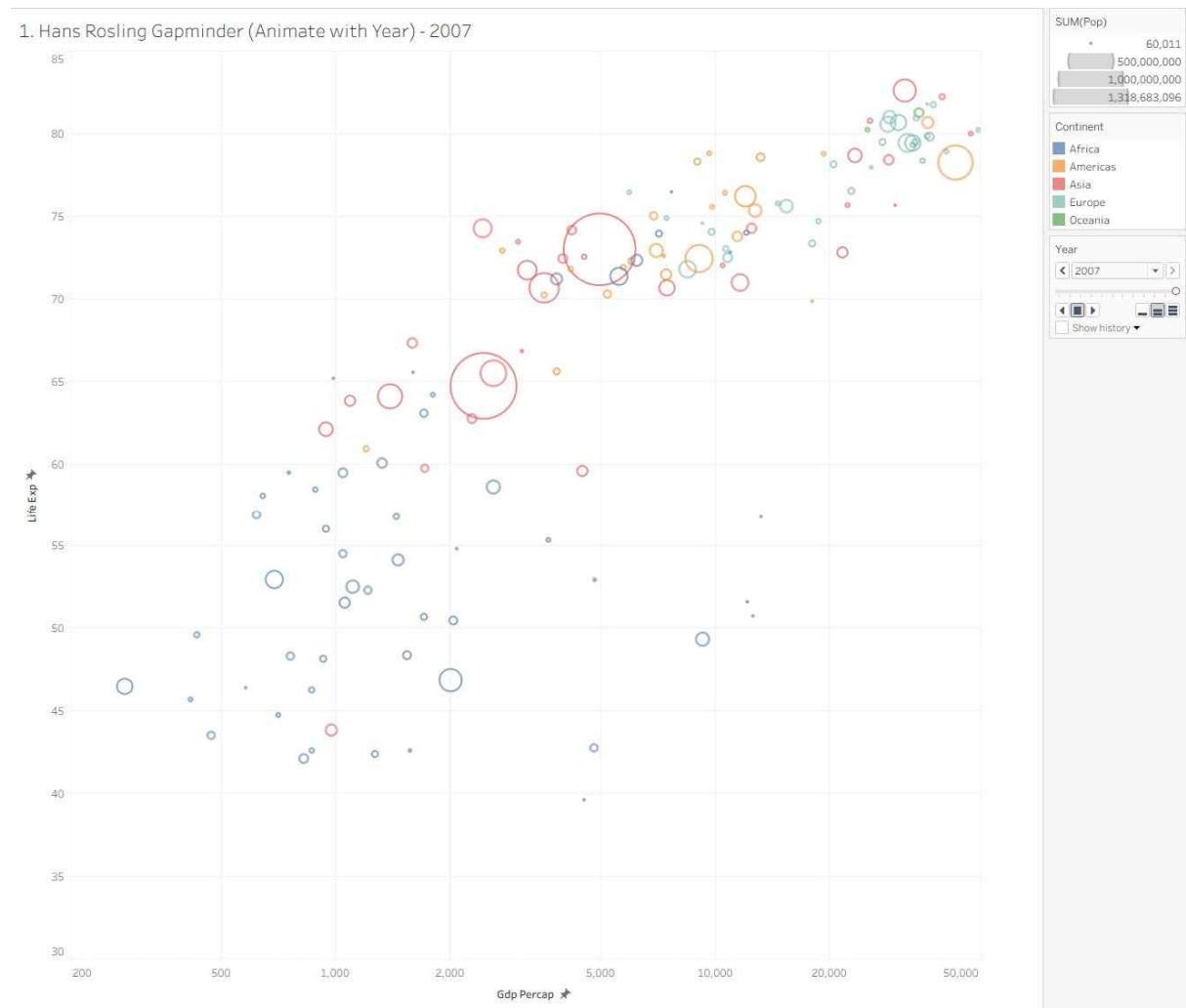


Figure 1. Animated bubble chart showing GDP per Capita and Life Expectancy over time

The connected scatterplot traces each country's development trajectory over time, showing how GDP per Capita and Life Expectancy co-evolve. This makes it easier to compare long-term growth patterns:

- Japan and South Korea show rapid improvement in both economic development and public health, reflecting post-war industrialization and effective health policy adoption.
- The United States shows continuous economic growth, but life expectancy rises more slowly compared to GDP increases.
- China and India both make significant progress, but China's rise is more accelerated due to earlier industrial and healthcare shifts.

These visualizations together demonstrate that while economic development generally improves health outcomes, the rate of improvement depends heavily on historical, political, and social conditions.

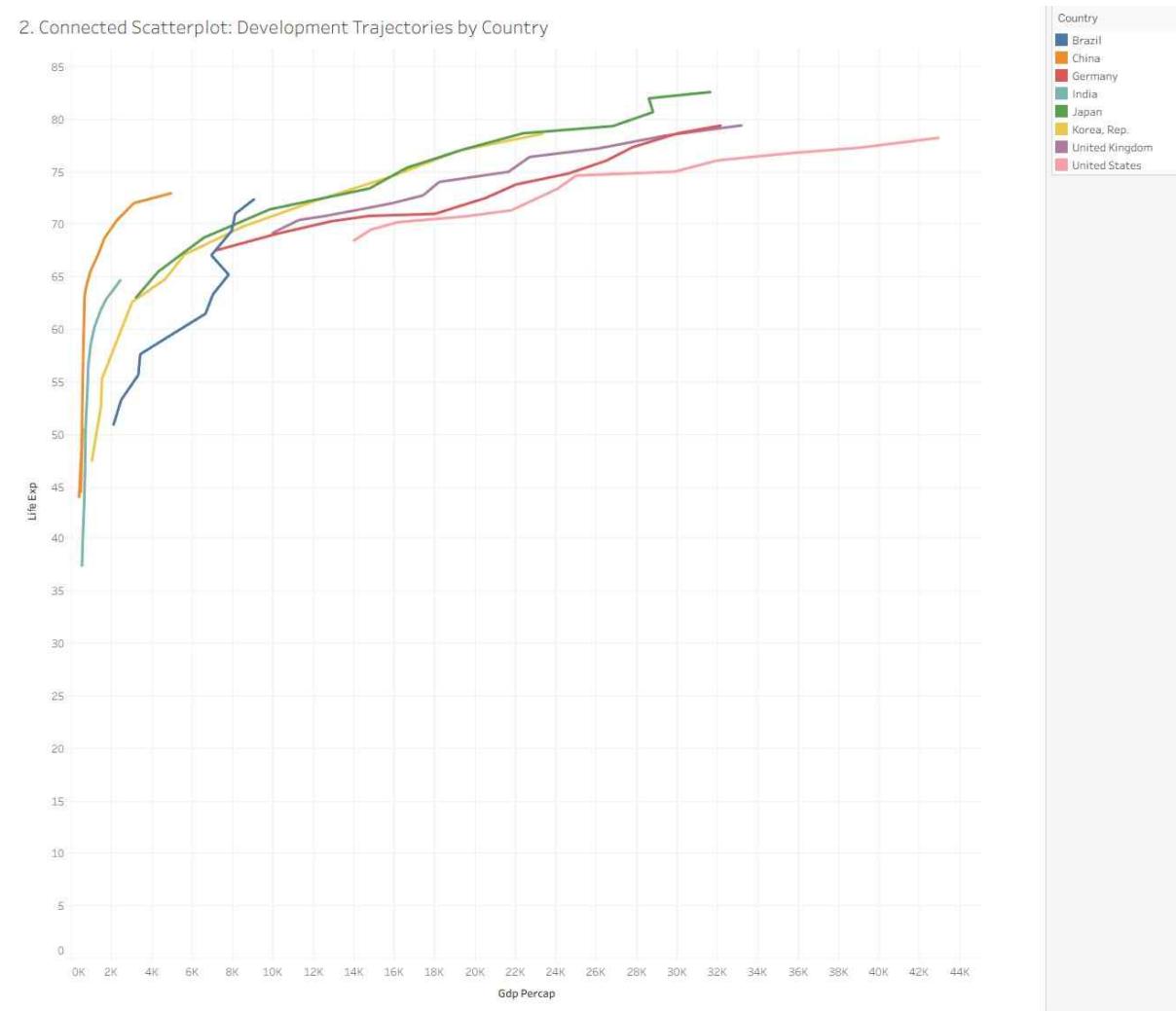


Figure 2. Connected scatterplot showing long-term development trajectories for selected countries