Unemployment

## Quarto

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

## Running Code

When you click the **Render** button a document will be generated that includes both content and the output of embedded code. You can embed code like this:

library(ggplot2)

library(dplyr)

library(gganimate)

# Unemployment data for Pakistan  
unemployment\_pak <- c(2.26, 2.42, 2.45, 1.61, 2.08, 3.75, 6.09, 7.23, 6.2, 4.86, 5.04, 5.28, 5.43, 5.12, 5, 5.32, 5.07, 4.47, 3.14, 3.069, 6.503, 11.595, 16.201, 16.426, 19.78, 15.572, 14.968, 13.215, 11.693, 12.49, 10.291, 10.423, 10.469, 10.358, 8.384, 7.719, 6.854, 6.369, 8.25, 8.394, 7.781, 7.689, 8.193, 8.663, 9.376, 8.818, 8.64, 7.361, 6.695, 7.759, 7.606, 6.719)  
  
years\_pak <- 1971:(1971 + length(unemployment\_pak) - 1)  
  
# Unemployment data for Finland  
unemployment\_fin <- c(2.09, 2.15, 2, 1.67, 1.7, 1.9, 1.9, 4.18, 4.12, 4.01, 3.82, 3.82, 4.3, 4.16, 3.97, 3.97, 3.05, 2.16, 2.03, 1.97, 5.85, 5.18, 4.28, 4.26, 5.03, 4.79, 5.81, 5.7, 5.35, 7.16, 6.88, 7.83, 7.49, 7.4, 7.05, 0.582, 0.398, 0.423, 0.535, 0.653, 0.796, 3.667, 2.954, 1.827, 3.566, 2.286, 4.083, 4.83, 6.338, 6.719)  
  
years\_fin <- 1971:(1971 + length(unemployment\_fin) - 1)  
  
# Filter the common years  
common\_years\_unemployment <- intersect(years\_pak, years\_fin)  
  
data\_unemployment <- data.frame(years = common\_years\_unemployment,  
 unemployment\_pak = unemployment\_pak[match(common\_years\_unemployment, years\_pak)],  
 unemployment\_fin = unemployment\_fin[match(common\_years\_unemployment, years\_fin)])  
  
ggplot(data\_unemployment, aes(x = years)) +   
 geom\_line(aes(y = unemployment\_pak, color = "Pakistan"), size = 1) +  
 geom\_point(aes(y = unemployment\_pak, color = "Pakistan"), size = 3) +  
 geom\_line(aes(y = unemployment\_fin, color = "Finland"), size = 1) +  
 geom\_point(aes(y = unemployment\_fin, color = "Finland"), size = 3) +  
 labs(title = "Unemployment Rate Comparison: Pakistan vs. Finland", x = "Years", y = "Unemployment Rate (%)") +  
 scale\_color\_manual(values = c("Pakistan" = "green", "Finland" = "blue")) +  
 theme\_minimal() +  
 theme(legend.position = "top", panel.background = element\_rect(fill = "#F5F5F5")) + # Light Gray background  
 transition\_reveal(years)

