Debt Graph

## 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)

# Debt data for Finland  
debt\_finland <- c(  
 2367, 2913, 3837, 5490, 5502, 6342, 7665, 8570, 11172, 14150,  
 14005, 13088, 12518, 13472, 13617, 16356, 20037, 21748, 23298,  
 26571, 23080, 23981, 23495, 29703, 40490, 41124, 41471, 43752,  
 42243, 46102, 43237, 45145, 53171, 61520, 65433, 77289, 90089,  
 96839, 62893, 69488, 79145, 73116, 74445, 74333, 59818, 57907,  
 68074, 75870, 73469, 66221, 81996  
)  
  
years\_finland <- 1971:(1971 + length(debt\_finland) - 1)  
  
# Debt data for Pakistan  
debt\_pakistan <- c(  
 19938.15, 17284.48, 20986.31, 25178.08, 24418.19, 25022.93,  
 24515.38, 21890.75, 20355.19, 21477.01, 23344.41, 23268.40,  
 21951.06  
)  
  
years\_pakistan <- 2008:(2008 + length(debt\_pakistan) - 1)  
  
# Filter the common years  
common\_years\_debt <- intersect(years\_pakistan, years\_finland)  
  
data\_debt <- data.frame(  
 years = common\_years\_debt,  
 debt\_pakistan = debt\_pakistan[match(common\_years\_debt, years\_pakistan)],  
 debt\_finland = debt\_finland[match(common\_years\_debt, years\_finland)]  
)  
  
ggplot(data\_debt, aes(x = years)) +  
 geom\_line(aes(y = debt\_pakistan, color = "Pakistan"), size = 1) +  
 geom\_point(aes(y = debt\_pakistan, color = "Pakistan"), size = 3) +  
 geom\_line(aes(y = debt\_finland, color = "Finland"), size = 1) +  
 geom\_point(aes(y = debt\_finland, color = "Finland"), size = 3) +  
 labs(title = "Debt Comparison: Pakistan vs. Finland", x = "Years", y = "Debt Amount (US$)") +  
 scale\_color\_manual(values = c("Pakistan" = "green", "Finland" = "blue")) +  
 theme\_minimal() +  
 theme(legend.position = "top", panel.background = element\_rect(fill = "#E1F7EC")) +  
 transition\_reveal(years)

