Trade Deficit

## Quarto

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## 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)

# Trade deficit data for Pakistan  
trade\_deficit\_pak <- c(129440041.3, 220737202.1, 412028469.8, 392340075.4, 340278171.9, 466155371.8, 448862251.6, 407696188.1, 213026412.6, 495824324.7, 721498358.9, 968517412.7, 1972535047, 1035477000, 807449912.1, 709063740.8, 501874817.3, 394593909.4, 520537572, 295910500.6, 526524067, 850192500.7, 1196800785, 2929398397, 1732811460, 548285615.3, 1194844446, 1028001946, 1511368705, 1513347514, 3640025804, 8078289631, 10940965436, 9799027457, 10032828334, 11543115498, 14044024197, 7194233937, 11318242634, 14345903940, 14527990312, 10241503776, 5155988089, 11807078698, 17829731393, 19650422286, 15764804402, 9174683599, 13421197226, 14591657230, 19028414245, 6159296212)  
  
years\_pak <- 1971:(1971 + length(trade\_deficit\_pak) - 1)  
  
# Trade deficit data for Finland  
trade\_deficit\_fin <- c(623132343.7, 667646121.4, 574282671, 595855017.6, 433174187.1, 462113602.8, 531099281, 1222893499, 1539989015, 1870184504, 1483688177, 1517500811, 1237729200, 2754270554, 3749916520, 1787135667, 6417520762, 6369202833, 5111155526, 9644062660, 7608722368, 5213449147, 5410778797, 10661974712, 10038336451, 6916261115, 8416628559, 9694481013, 8219728947, 7976924083, 7983348163, 9284954098, 10514943632, 12221530497, 10521093301, 6494233358, 7063149053, 6979372867, 9710584792, 7326737725, 7857077418, 8453224912, 9369246806, 8773770780, 8341475637, 8654839380, 8458376392, 8284157187, 9020281293, 10492037777, 13875628703, 13180100339)  
  
years\_fin <- 1971:(1971 + length(trade\_deficit\_fin) - 1)  
  
# Filter the common years  
common\_years\_trade\_deficit <- intersect(years\_pak, years\_fin)  
  
data\_trade\_deficit <- data.frame(  
 years = common\_years\_trade\_deficit,  
 trade\_deficit\_pak = trade\_deficit\_pak[match(common\_years\_trade\_deficit, years\_pak)],  
 trade\_deficit\_fin = trade\_deficit\_fin[match(common\_years\_trade\_deficit, years\_fin)]  
)  
  
ggplot(data\_trade\_deficit, aes(x = years)) +  
 geom\_line(aes(y = trade\_deficit\_pak, color = "Pakistan"), size = 1) +  
 geom\_point(aes(y = trade\_deficit\_pak, color = "Pakistan"), size = 3) +  
 geom\_line(aes(y = trade\_deficit\_fin, color = "Finland"), size = 1) +  
 geom\_point(aes(y = trade\_deficit\_fin, color = "Finland"), size = 3) +  
 labs(title = "Trade Deficit Comparison: Pakistan vs. Finland", x = "Years", y = "Trade Deficit") +  
 scale\_color\_manual(values = c("Pakistan" = "green", "Finland" = "blue")) +  
 theme\_minimal() +  
 theme(legend.position = "top", panel.background = element\_rect(fill = "#F7E6FF")) +  
 transition\_reveal(years)

