

## Grad Quant: Data Visualization [Day 1]

# Data Visualization

- ▶ Data visualization is the graphical representation of information and data.
  - ▶ Provide an accessible way to see and understand trends, outliers, and patterns in data.
- ▶ Data visualization can be used for:
  - ▶ **Exploration:** Identifying and learning from patterns/trends in data
  - ▶ **Explanation:** Explaining or communicating findings from data

# Visualization in R using ggplot2

- ▶ R is increasingly adopted for statistical analyses/plotting
- ▶ ggplot2 is a package within tidyverse that is most frequently used
  - ▶ Level of customization has led outlets such as BBC and NYT to adopt ggplot2 as their preferred data visualization tool
- ▶ Additional benefit of visualization in R (or other programming languages):
  - ▶ transparency
  - ▶ easily adapt and re-run visualization