**Analysis of Trading Volume for Apple and Samsung During the Pandemic**

**Introduction**

The study focuses on answering this question: *Did the trading volume of Apple and Samsung increase or decrease during the pandemic?* For this question, the analysis aims to look at how the COVID-19 pandemic affected the trading volume of Apple and Samsung. By examining the trading volumes pre-pandemic and during the pandemic for both companies, it helps determine whether the investor activity in these stocks increased or decreased and helps provide insights into investor behavior in response to market shifts caused by the global pandemic.

**Data Description**

The stock price data for Apple and Samsung was sourced from Yahoo Finance API because of its frequency of updates, ensuring accurate and current data. The datasets were merged to show the historical stock prices ranging from January 2020 to December 2021.

**Methodology**

* **Data collection and cleaning process:**  The steps taken to clean and preprocess the data were to first clean our data, ensuring there were no inconsistencies in the format.
* Secondly, we had to call in our two data sets, followed by merging both files into a single data frame.
* From that point, I looked to filter the new data frame by date, so we were able to align and compare the data on a day-to-day basis.

**Metrics calculated**

* We were able to calculate the total trading volume of Apple and Samsung by grouping them with a ticker which helps differentiate between the two currencies USD(US Dollars) for Apple and KRW (Korean Won) for Samsung, allowing us to see the total trading activity for each company in their respective currencies during the pandemic.

**Visualization techniques**

* The utilization of bar charts allowed for easy comparisons of the total trading volume allowing us to get insights on how the pandemic affected investor activity.

**Trends**

* During the pandemic, Apple and Samsung saw a constant change in trading volume. Apple experienced a surge in trading volume in early 2020 and managed to sustain its levels of trading through mid-2020. Samsung’s trading volume also showed growth during the pandemic. However, by the end of 2021, there was a slight decline due to the global semiconductor shortage that took place. Overall, Apple outperformed Samsung in trading activities, resulting in higher investor confidence in the tech sector during the pandemic.