

Post-Pandemic Performance Analysis of Leading Investment Banks

Takaaki Morita, Ming Shan Lee

The COVID-19 pandemic has caused significant shifts in global financial markets. The purpose of the project is analyzing how leading investment banks have adapted and performed in the post-pandemic era, focusing on their financial health, stock performance, and investment trends.

Data will be collected from Yahoo Finance, which offers comprehensive historical data on stock prices, trending volumes, and financial summaries of public companies, including major investment banks. The collection will be executed through Python libraries “BeautifulSoup” and “requests”. While “BeautifulSoup” will analyze the web pages, “requests” will handle the HTTP requests to Yahoo Finance’s web pages for each investment bank. This approach allows us to automate the extraction of structured datasets from HTML content of the web pages.

We will be specifically scraping the following information for each bank:

- Historical stock price (daily open, close, high, low, and volume)
- Quarterly and annual financial statements (income statement, balance sheet, cash flow)
- Financial ratios and performance indicators

The collected data will go through various analyses, including financial ratio analysis, stock performance trend analysis, and comparison of pre-pandemic and post-pandemic performance. We will use Python libraries pandas for data manipulation, NumPy for numerical analysis, and scikit-learn for any predictive modeling.

Visualization will be created to display the analysis results effectively. This will include timeseries graphs of stock prices, comparative bar charts of key financial ratios, and scatter plots to depict the correlation between different performance indicators. We will use matplotlib and seaborn to make these visualizations.