



### Question

Download the financial statements, including income statements, cash flow statements and balance sheets of a US company or any other company using the Python package **yahoofinancials** or a similar one such as **yfinance**.

Answer:

[https://colab.research.google.com/drive/1f9GbS7peZhcTuViR2xxW\\_jyH4W5sqHzP?usp=sharing](https://colab.research.google.com/drive/1f9GbS7peZhcTuViR2xxW_jyH4W5sqHzP?usp=sharing)

Refer to section “Download Financial Statement From yfinance”

### Question 1

Prepare proper financial statements from your downloaded raw data. You may use the Python user-defined functions covered in the course lecture materials.

Answer:

[https://colab.research.google.com/drive/1f9GbS7peZhcTuViR2xxW\\_jyH4W5sqHzP?usp=sharing](https://colab.research.google.com/drive/1f9GbS7peZhcTuViR2xxW_jyH4W5sqHzP?usp=sharing)

Refer to section “Prepare Proper Financial Statement”

### Question 2

Perform basic financial analysis on the financial statements you created, such as common size analysis and financial ratios

Answer:

<https://docs.google.com/spreadsheets/d/1F26PkVth-HyPxCaVO1OgKXB1BBo9FcT14Bupo1dvUds/edit?usp=sharing>

Refer to worksheets “In Analysis”, “CF Analysis”, and “Bs Analysis”

### Question 3

Show them on Google Sheets by exporting the financial statements from Python

Answer:

[https://colab.research.google.com/drive/1f9GbS7peZhcTuViR2xxW\\_jyH4W5sqHzP?usp=sharing](https://colab.research.google.com/drive/1f9GbS7peZhcTuViR2xxW_jyH4W5sqHzP?usp=sharing)

Refer to section “Import yfinance to Google Sheet”

<https://docs.google.com/spreadsheets/d/1F26PkVth-HyPxCaVO1OgKXB1BBo9FcT14Bupo1dvUds/edit?usp=sharing>

Refer to worksheets “Income”, “CashFlow”, and “Balance”

#### Question 4

Assume that the sales or revenue of the company will grow at the average of its past years in your dataset. Likewise, cost items will be the same percentage as past years' average values. Based on these assumptions, generate financial statements for the next five years. Further, assume that the terminal stage's revenue growth rate is half of the value you used for the forecasting stage. Gather further information from the web to calculate the company's WACC and compute the followings:

- a. enterprise value
- b. company value
- c. debt value
- d. equity value
- e.

Answer:

<https://docs.google.com/spreadsheets/d/1F26PkVth-HyPxCaVO1OgKXB1BBo9FcT14Bupo1dvUds/edit?usp=sharing>

- Refer to worksheets “Forecast”

Revenue growth at average = 8.5%

Cost items same percentage as past years average values = 10%

- Refer to worksheet “WACC”

WACC = 7.66%

- a. Refer to worksheet “EV”

EV = \$ 280,462,080,000 USD

- b. Refer to worksheet “FCF”

FCF = \$ 11,093,971,510 USD

- c. Refer to worksheet “Debt Value”

Debt Value = \$ 28,401,000,000 USD

- d. Refer to worksheet “Eq.V”

Equity Value = \$ 247,764,080,000 USD



#### Question 5

Redo your equity valuation using the equity analysis concepts.

Answer:

- Refer to worksheets “2 stages DCF” and Equity Report

2 Stages DCF = \$ 257,045,859,873 USD

#### Question 6

Apply Monte Carlo Simulation on the key items of financial statements to redo equity valuation.

Answer:

<https://colab.research.google.com/drive/1mJHcOePULHqMhhU-b-1pZZQZ4aWizFCH?usp=sharing>