

FIN 312 Case Study Project Guidelines

This project is designed to give you an opportunity to conduct a stock analysis. To do a good analysis, you should be able to compute financial ratios of the company correctly, analyze these ratios by comparing with other company and with the past, and decide whether the stock is fairly-, under-, or over-valued. Then, complete a case study research report that includes your analysis. Read carefully and follow the instructions below step by step. In order to get full credits, you should show your works of how you calculated the answers for every question. **(100 points)**

1. Assume that you start your career as a junior financial analyst in an investment company. Select a company to analyze its financial status for potential investment. Refer to this company as your “Target Company” (for example, Ford). Also, select a competing company in the same industry to compare two companies. Call this company a “Comparable Company” (for example, GM) as indicated below in #28-32. Common stocks in both companies must be traded in the stock exchange.
2. Go to <https://finance.yahoo.com>.
3. Type the stock symbol of the Target Company, for example “AAPL” for Apple Inc., in the blank box ‘Quote Lookup’ in the right corner menu. Click on the stock symbol popped up.
4. Open an MS word file and make a cover page that includes the title of the project, your name, and the date. Refer to a sample example that is attached to this project if necessary.
5. In the next page of the MS word file, **write the name of the company on the top**. In addition, **write why you are interested in the company**.
6. Copy the company name (stock symbol), stock exchange (for instance, NYSE or NASDAQ), and stock price. Paste these to the word file below the name of the company.

To copy these in a tidy manner, press Pint Scrn (print screen) key on the top line of the keyboard. To copy the computer screen, press Ctrl C (or Command C on Macbook), open Paint, and press Ctrl V (or Command V on Macbook). Select the area that you would like to include. Press Copy and then paste to the MS word file. (<https://support.office.com/en-us/article/copy-the-window-or-screen-contents-98c41969-51e5-45e1-be36-fb9381b32bb7>)

7. Click the **Summary** (on the menu bar under the stock price). Copy the table that includes stock price, trade volume, market cap, beta, P/E ratio, EPS, dividend & yield, and ex-dividend date. Paste this to the word file. (You may also use Print Screen to copy and paste)
8. Click the **Profile** (on the menu bar under the stock price) and find **Description** of the company. Copy the company description and paste it to the word file.
9. Click the **Financials** (on the menu bar under the stock price). Then click on the **Income Statement** (under the Financials section in the menu) to find the income statement of the company for the recent three years. Copy the income statement and paste it to the word file. (You may also use Print Screen to copy and paste)
10. Click the **Balance Sheet** (under the Financials section in the menu) to find the balance sheet of the company for the recent three years. Copy the balance sheet and paste it to the word file.
11. Click the **Cash Flow** (under the Financials section in the menu) to find the statement of cash flow of the company for the recent three years. Copy the statement of cash flow and paste it to the word file.
12. Open the attached '**FIN 312 Case Study Project_Excel Calculation Sample**' file. In the spreadsheet "Calculations", update all figures of the items such as EBIT, Income Taxes, Depreciation, and so on in the table and the figures below the table such as Total Assets, Current Assets, Current Liabilities, etc. Refer to 'Formula' column for more information.

Once you try to copy the figures in Yahoo Finance to excel spreadsheet, you may realize that the figures are pasted in cells in vertical order. To arrange vertical order into horizontal order, copy the cells containing recent three year's numbers in vertical order, go to a blank cell in the right of the item name, right click on the mouse and select paste special, click on transpose in a popped up box. For more information, see this link about excel transpose: <https://support.microsoft.com/en-us/office/transpose-rotate-data-from-rows-to-columns-or-vice-versa-3419f2e3-beab-4318-aae5-d0f862209744>

13. Compute the **change in net working capital (ΔNWC)** for the recent two years using the balance sheet. Make sure to change in NWC in addition to NWC. Check if your calculations are correct with the spreadsheet. See Chapter 2 Lecture Notes for more details.

14. Find the **EBIT (Earnings Before Interest and Taxes)** for the recent two years in the Income Statement.
15. Find the **Income Tax Expense** for the recent two years using the Income Statement.
16. Find the **Depreciation** for the recent two years in the Statement of Cash Flow.
17. Compute the **Operating Cash Flow (OCF)** for the recent two years. See Chapter 2 Lecture Notes.
18. Find the **Net Income (NI)** for the recent two years in the Income Statement.
19. Compute the **Current Ratio (CR)** and **Quick Ratio (QR)** for the recent two years. Check if your calculations are correct with the spreadsheet. See Chapter 3 Lecture Notes to compute financial ratios.
20. Compute the **Debt-to-Equity (D/E)** ratio and **Interest Coverage Ratio** (Time Interest Earned Ratio) for the recent two years. Check if your calculations are correct with the spreadsheet.
21. Compute the **Return on Equity (ROE)** and the **Net Profit Margin (PM)** for the recent two years. Check if your calculations are correct with the spreadsheet.
22. Find the **Total Market Value**. You may use the Market Cap in the Summary page for the total market value. Remember the unit for the market cap. is in \$ billion. However, the unit for the numbers in the income statement, balance sheet, and cash flow statement is generally in \$ thousand. Adjust the total market value by multiplying the market cap in Yahoo Finance Summary page by 1,000,000.
23. Compute the **Market-to-Book (M/B)** ratio. Remember that $M/B \text{ ratio} = \text{total market value} / \text{total shareholders' equity}$. You can find the total shareholders' equity in the Balance Sheet. Make sure that you may need to adjust the dollar unit for the market value and the book value. To adjust the units, you have to multiply the market cap. by 1 million. Check if your calculation is correct with the spreadsheet.
24. Compute the recent **Price-to-Earnings (P/E)** ratio. In order to find past share prices, go to a stock's Summary page. Click the stock price chart on the right corner. Set the time range as five years by clicking on 5Y on the top of the chart. Move the cursor to the date (e.g., Jan. 1, 18) to find the close price. Use close price and earnings per share (EPS) to compute the P/E ratio. Remember that $EPS = NI / \text{number of shares outstanding}$. The # of shares outstanding =

total market value/current stock price. Assume that the number of shares does not change for the recent three years. Check if your calculation is correct with the spreadsheet.

25. Find the stock **beta** on the first page of the word file.
26. Assuming the risk-free rate (R_f) of 1 percent and the expected market return ($E(R_m)$) of 10 percent, find the **expected return on the stock ($E(R_j)$)** based on the CAPM equation, $E(R_j) = R_f + \beta(E(R_m) - R_f)$.
27. Find the **dividend yield** for the most recent year ($DY = \text{the recent dividend/stock price}$) in the Summary page.

Again, you must show your works for the questions above that require computing ratios. Show your calculations by attaching the excel file that includes the functions used to compute the ratios and correctly updated figures.

28. Find **Analyst Earnings Estimate** for next year. Click on ‘**Analysis**’ on the top menu in Yahoo Finance. Use Avg. Earnings Estimate (EPS) for next year (e.g., 2021).
29. Compute **Earnings Growth Rate** and then estimate **next year’s stock price (P1)** using the estimated earnings and average P/E ratio.
30. Estimate **next year’s stock price (P1)** using the required rate of return based on CAPM.
31. Compute **A/R Period, Inventory Period, and A/P Period**.
32. Compute **Operating Cycle** and **Cash Cycle**.
33. Go to Gardner-Webb Library website (<https://gardner-webb.edu/library>). Scroll down and find the **BULLDOG ONESEARCH** box. Click on **Databases by Title** tab at the bottom of the box. Go to the ‘Databases Search’ box below *Database Title Search* bar. Type “Morningstar” in the box and click on **Search** tab. You may find **Morningstar Investment Research Center** link. Click on the tab. You may see the statement “Please enter your Gardner-Webb User Name and Password for remote access to the Library's Electronic Databases”. Use your GWU user name and password (i.e., the user name and password you use to log into WebbConnect website) in order to log on at the library website.
34. On the Morningstar Investment website, find the ‘ Enter a Ticker or Name’ box on the right corner of the top menu. Type the stock symbol of the target company in the search box.
35. You may see the link to the company’s information such as the stock ticker and company name. Click on the link. Then you may see the Overview of the stock price and graph.

36. Scroll down on the Overview page. Find the ‘Morningstar’s Analysis’ section below the stock chart in the overview section. Click on the ‘**Competitors**’ right to ‘Summary’ in the top menu bar in the Morningstar’s Analysis section.
37. Pick a company among the list of competitors as your **Comparable Company**.
38. **Repeat #2 – 32** exactly the same for the Comparable Company.
39. **Fill in the table** in the following page using the answers obtained from the above parts. Remember if you skip filling in this table, you will lose a substantial point of credit. Use attached a word file: ‘FIN 312 Case Study Project_Financial Analysis Summary Page.docx’ if necessary.

Financial Analysis Summary

	Target Company		Comparable Company	
	2019*	2018*	2019*	2018*
ΔNWC				
EBIT				
OCF				
NI				
CR				
QR				
D/E ratio				
ICR				
ROE				
PM				
MV (Total market value)				
BV (Total book value)				
M/B				
Current share price (in \$)				
No. of shares outstanding				
Past share prices (in \$)				
EPS				
P/E				
Beta				
E(R_j) with CAPM				
DY				
Analyst earnings estimate				
Earnings growth rate				
P1 with P/E ratio				
P1 with CAPM				
A/R period				
Inventory period				
A/P period				
Operating cycle				
Cash cycle				

* Use the most recent two years that do not necessarily to be 2019 and 2018.

40. **Analyze the stock in the Target company** by using the figures in the table. Do the analysis on the **liquidity, activity, leverage, profitability, and market value ratios** as you studied in the text. This is the most important part (highlight) of this project. Show your analytical skills by stating your analysis. Your analysis should be rich in contents to get a good credit. The length of this analysis may be one page or two. Then determine if you would recommend the Target Company's stocks based on your analysis. You may compare the market-to-book ratio and price-to-earnings ratio with those of the industry average to see if the stock is overvalued or undervalued. State clearly if you would recommend the stock (to buy or sell) or not. If you skip or do a poor work for this part, you may not get a good credit. See the attached sample project for an example of analysis. See the analysis in the attached sample case study project for your reference if necessary.

Grading

- Correctness of Computations: 40%
- Quality of Analysis: 30%
- Professional Documentation and Writing Skill: 30%

Warning! You should do this project independently by your own efforts. If there are reasonable evidences that you referred to other's works, you will get a **zero point**. Copying authors' or other's works violates the University Regulations and will not be tolerated.

Project Submission

In order to assure that all your assignments as well as your project are submitted, I will only use **Blackboard** Assignment submission tool. To submit assignments or projects please *do the following*:

- 1) Type your Case Study Project in MS Word and save the file as a **PDF file** on your computer. Name the word file 'Case Study Project'. In addition, save the excel spreadsheet that contains updated financial statement figures and financial ratio calculations on your computer. Name the excel file 'Financial Ratio Calculations'.

- 2) Click the “Browse My Computer” button on Blackboard to attach the file. (Do not type in the Submission window). Browse your computer's hard drive, clouds, or USB flash drive to locate the file you wish to submit. Enter any comments you need to make to me.
- 3) Then click the "Submit" button at the bottom of the screen. Make sure to submit BOTH the Case Study Project word file and the Financial Ratio Calculations excel file.
- 4) Your assignment cannot be retrieved once submitted.

It is highly recommended that you work on this project throughout the semester instead of waiting until the due date to try and complete this research project. The Case Study Project must be submitted through the Blackboard **by MIDNIGHT of the due date** set on the syllabus. Any Case Study Report submitted late will have the grade reduced by 25% for each day it is late. **Your Project MUST be completed and turned in to receive a passing grade in the Course.**