Excel Requirements and Report Suggestions

DISCLAIMER: the suggestions in this document are based on equity research standards at academic and industry level. Their implementation depends on considerations at company and industry level. Students are encouraged to develop their analysis in coherence with these principles and delve deeper into these topics; the quality of execution and the correct application of the concepts are essential for a successful thesis. It is particularly rewarded the inclusion of novel analyses, also with new methods, or as an extension of these principles, also by taking into consideration specificities at company and industry level, being also innovations on the ESG aspect very relevant.

A – Excel Model Requirements

Excel organization: it is suggested to fully dedicate some excel sheets to contain only collected raw data, in an organized way, and others for your analysis; do not include entire excel sheets with raw data that are never used, please do not exceed a total limit of 20/25 excel sheets.

Data collection: the quality of data is the highest at their source. It is suggested to first import past financial statements data of the company in the last 6-7 years manually from its historical annual reports. The "notes to the account" section of the company's annual report may provide more granular accounts than those present in financial databases; an appropriate level of granularity may improve the quality of financial analysis and forecast.

Financial databases: You should use financial databases like Bloomberg, Thomson Reuters, etc. only to collect the necessary raw market data, for instance the historical series of company's share prices or of stock market indexes. In specific situations, students may need to collect more data from these databases.

Content: All the analysis, tables and graph exposed in the final equity research report should be present in final version of the excel valuation model that is submitted for evaluation.

Campus de Carcavelos
Rua da Holanda,1
2775-405 Carcavelos

+351 213 801 600

novasbe.pt

Accredited by

AACSB ACCREDITED   EQUIS   AMBA ACCREDITED

Member of

CEMS   gbsn Global Business School Network   PRME   PRME

1

B - Report

There are two templates, one for the individual report and one for the joint report, which the students have to follow, but they are <u>free to organize the chapters of their reports as they see fit</u>. Normally reports contain different chapters/sections on topics relating the company overview, industry analysis, financial analysis, forecast part, valuation, additional tests, risks, ESG. Below some suggestions for students to improve their report and make them more aligned with <u>academic and industry standards</u>, resulting in a better grade for their thesis:

- **Language:** the equity research report is a professional document used by investment banks to express their view on a company to their clients (mainly professional and institutional investors), therefore the language must be professional, "neutral" and "to the point", avoiding a lot of adjectives and long descriptions.

- **Communication**: The Equity Research Report is also used by investment banks as a marketing tool, so it should be appealing in terms of presentation and the overall quality of graphs and tables. As its main audience is professional investors, long descriptions without critical comments should be avoided and the focus should be on the investment thesis, the support for the valuation (e.g. revenues, margins, growth rates and discount rates, sensitivity analysis to the main valuation variables) and the scenarios of possible downside and upside that the company may face in the future.

- **Investment thesis:** The report must contain a recommendation to the investor and an investment strategy or thesis to support it. This investment thesis should be a brief justification of the analyst's view of the company that supports the recommendation and why the investor should follow it. These considerations must be quantitatively reflected in the subsequent valuation model and process.

- **Gathering additional information, also for industry and company forecast:**

<u>Company's investor relations:</u> you may also contact the company's investor relations office and use the information the company makes available to investors and other information available about the company and the market to gain insight into management's expectations of the future development of the company's fundamentals. There is information about the company that can affect its future value, so in addition to the date of your report, you should also mention the date you closed your forecasts and the date of the last information you used. Please note that the forecasts should be primarily based on your understanding and analysis of the company, management targets and those communicated by the company may be relatively optimistic. A comparison with management targets and consensus by major analysts would provide additional insights.

<u>Non-financial professionals:</u> In the "real world" information is not always available and sometimes there are different sources of information with different values for the same variable. If you have sources with different values, do not worry, but see it as an opportunity to give your opinion on the value you have chosen (which may even be different from all your sources). If you do not have all the information, you need to make reasonable assumptions about the information and challenge them, this is more common than you think. It is not a problem if you do not know all the characteristics of a company

Campus de Carcavelos
Rua da Holanda,1
2775-405 Carcavelos

+351 213 801 600

novasbe.pt

Accredited by
AACSB ACCREDITED · EQUIS · AMBA ACCREDITED

Member of
CEMS · gbsn Global Business School Network · PRME · PIM

2

or industry, always remember that there are non-financial professionals who work in the sector of your company, try to contact them and get their insights, sometimes they can be very important

- **Company overview, history:** this part may focus on the main aspects of the company, and can also discuss topics relating the shareholding structure, the functioning of corporate governance, organic vs external growth, etc., from the perspective of analysis and not mere description. Importantly, this part of the report should not be very descriptive in terms of text and should not have a lot of pages; avoid copying the text of annual reports and information on websites that have information about the company, instead try to use more graphics and tables to explain the evolution of ratios and variables that you consider important and express your personal opinion, interpretation and view of the company instead of just describing the ratios and variables.

- **Financial analysis:** Financial analysis should cover the last 6-7 years of the company, focusing on metrics that are more relevant for valuation purposes (Return on Invested Capital, Revenue analysis, profitability measures, etc.) with appropriate graphical representation, also put in perspective in the context of sector and competitors. Try to use more graphics and tables to explain the evolution of ratios and variables that you consider important and express your personal opinion, interpretation and view of the company instead of just describing the ratios and variables.

[Possible reference: Chapter 12: Analyzing Performance, T. Koller, M. Goedhart, and D. Wessels, *Valuation: Measuring and Managing the Value of Companies*, McKinsey & Company, John Wiley & Sons, 7th ed.]

- **Industry analysis and macroeconomics:** this section should be mostly forward-looking: while a careful analysis of the past, including its degree of exposure to macroeconomic trends, the competitive environment, threat and opportunities, also considering more generally the context of the supply chain, provides valuable information on the sector, the report should inform on how the sector and these dimensions are expected to evolve in future years. The collection and analysis of publicly available indicators connected to the sectors (for instance, data on expected sector and/or product growth, more generally any variable linked to the evolution and performance of the sector) may be necessary. This part of the report should not be very descriptive in terms of text and should not have a lot of pages; avoid copying the text of information available on websites and reports, instead try to use more graphics and tables to explain the evolution of ratios and variables you consider important and express your personal opinion instead of just describing the ratios and variables.

- **Company positioning within the sector, including competitive puzzle of the company and the risks and opportunities** it may face in the future: SWOT analysis is usually used to identify these issues, so it can be a valuable tool to use in your report. You should also use the risks and opportunities you identify in these chapters in the scenario analysis.

- **ESG (Environmental, Social and Governance):** Some institutional investors (e.g. investment funds) have guidelines on the ESG status or ranking of the companies they invest in, so information on this topic will enhance your report. In particular, the positioning of the company compared to companies in its sector and relative to other

Campus de Carcavelos
Rua da Holanda,1
2775-405 Carcavelos

+351 213 801 600

novasbe.pt

Accredited by

AACSB ACCREDITED   EQUIS   AMBA ACCREDITED

Member of

CEMS   gbsn Global Business School Network   PRME   p   M

3

sectors, also considering the heterogeneity and reliability of ESG information. And also the effect of future corporate strategies on the evolution of the ESG positioning of the company.

- **Financial statement re-organization and value drivers:** try to identify the value drivers and product/service lines of the company, they will be very helpful in your forecasts, identifying core and non-core activities, identifying activities with different risks and growth expectations, and valuation methods. In particular, the reorganization of the financial statement for single captions/divisions/segments of the company may be implemented if relevant for valuation purposes i.e. the captions significantly differ in terms of risk.

[Possible reference: Chapter 11: Reorganizing the financial statements, T. Koller, M. Goedhart, and D. Wessels, *Valuation: Measuring and Managing the Value of Companies*, McKinsey & Company, John Wiley & Sons, 7th ed.]

[Possible reference: Chapter 19: Valuation by Parts, T. Koller, M. Goedhart, and D. Wessels, *Valuation: Measuring and Managing the Value of Companies*, McKinsey & Company, John Wiley & Sons, 7th ed.]

- **Forecasts**: The forecast part entails the preparation of projected financial statements with income statements, balance sheet and cash flow statement in the next future 7-10 years. It is essential the correct application of accounting techniques to forecast financial statements; the forecast of revenues, and also operating costs, is particularly challenging, and requires students to design an appropriate revenue forecast model (top-down approach, bottom-up approach, regression model, etc.), with an appropriate level of granularity (segment/division level, geographical level, etc.), based on the main dimensions that are driving revenues and given the level of detail on revenues that is disclosed in the "Notes of the Accounts" section of the annual report of the company. On this purpose, students may need to collect any relevant publicly available information, for instance, sector growth, products consumption, macroeconomic variables, other sector-specific variables or any other variable that drives revenue generation of the company.

[Possible reference: Chapter 13: Forecasting performance, T. Koller, M. Goedhart, and D. Wessels, *Valuation: Measuring and Managing the Value of Companies*, McKinsey & Company, John Wiley & Sons, 7th ed.]

- **Variables used in the forecast:** the variables, their values and their evolution should be justified and supported; it is appreciated if you do not simply use the values of the variables from your source, but challenge them and give your opinion.

- **Valuation methods:** it is usually appreciated to use discount cash flow models (DCF and/or APV) and multiples valuation for the determination of the target share price. The degree of reliability that each method has at estimating the share price, that may depend on company and sector specific considerations, determines its weight in the target share price formula. Normally both methods are very important in determining the target share price.

Campus de Carcavelos
Rua da Holanda,1
2775-405 Carcavelos

+351 213 801 600

novasbe.pt

Accredited by

Member of

AACSB ACCREDITED   EQUIS   AMBA ACCREDITED   CEMS   gbsn Global Business School Network   PRME

4

[Possible reference: Chapter 13: Forecasting performance, T. Koller, M. Goedhart, and D. Wessels, *Valuation: Measuring and Managing the Value of Companies*, McKinsey & Company, John Wiley & Sons, 7th ed.]

- **Multiples valuation:** you should be very careful in choosing the comparable companies, justify your peer group choice and the multiples to be used to avoid non-comparable valuations. Possibly, also consider sector-specific multiples. On this purpose, proper knowledge on asset vs equity side multiples and the use of trailing, current and forward multiples is required.

[Possible reference: Chapter 18: Using Multiples, T. Koller, M. Goedhart, and D. Wessels, *Valuation: Measuring and Managing the Value of Companies*, McKinsey & Company, John Wiley & Sons, 7th ed.]

[Possible reference: Chapters 17, 18, 19 and 20, A. Damodaran, *Tools and techniques for determining the value of any asset*, John Wiley & Sons, 3rd ed.]

- **Sensitivity analysis:** this is very important to support the robustness of your valuation and recommendation.

- **Scenario analysis:** you should avoid using this chapter as a sensitivity analysis to an additional variable (e.g. increase or decrease in sales by 5%), instead you should use the risks and opportunities of the company to build a scenario where you can challenge several variables at the same time.

- **Additional tests:** while equity research reports inform on the target share price, that represents an expectation or average, they also communicate on how the share price would be if the underlying baseline hypotheses do not occur. Also in the context of risk aversion, where investors particularly fear the downside scenarios, alternative realizations of the future share price and its degree of variability are object of analysis and methods that include sensitivity analysis, scenario analysis and Monte Carlo simulations can be used on this purpose.

- **Monte Carlo simulations** can be a useful method to add value to your report by providing you with a distribution of the share price and their associated probabilities. Compared to the sensitivity analysis, it jointly considers the estimation uncertainty of more than two variables at the same time and these variables may also be more "granular", for instance growth rate for specific segment/divisions, profitability of single products, etc.

Campus de Carcavelos
Rua da Holanda,1
2775-405 Carcavelos

+351 213 801 600

novasbe.pt

Accredited by

AACSB ACCREDITED   EQUIS   AMBA ACCREDITED

Member of

CEMS   gbsn Global Business School Network   PRME   PRM

5