Chp 2. REPORT OVERVIEW

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Equity Research – Masters in Finance

2020/2021

LISBON
SCHOOL OF
ECONOMICS &
MANAGEMENT
UNIVERSIDADE DE LISBOA

CONTENT

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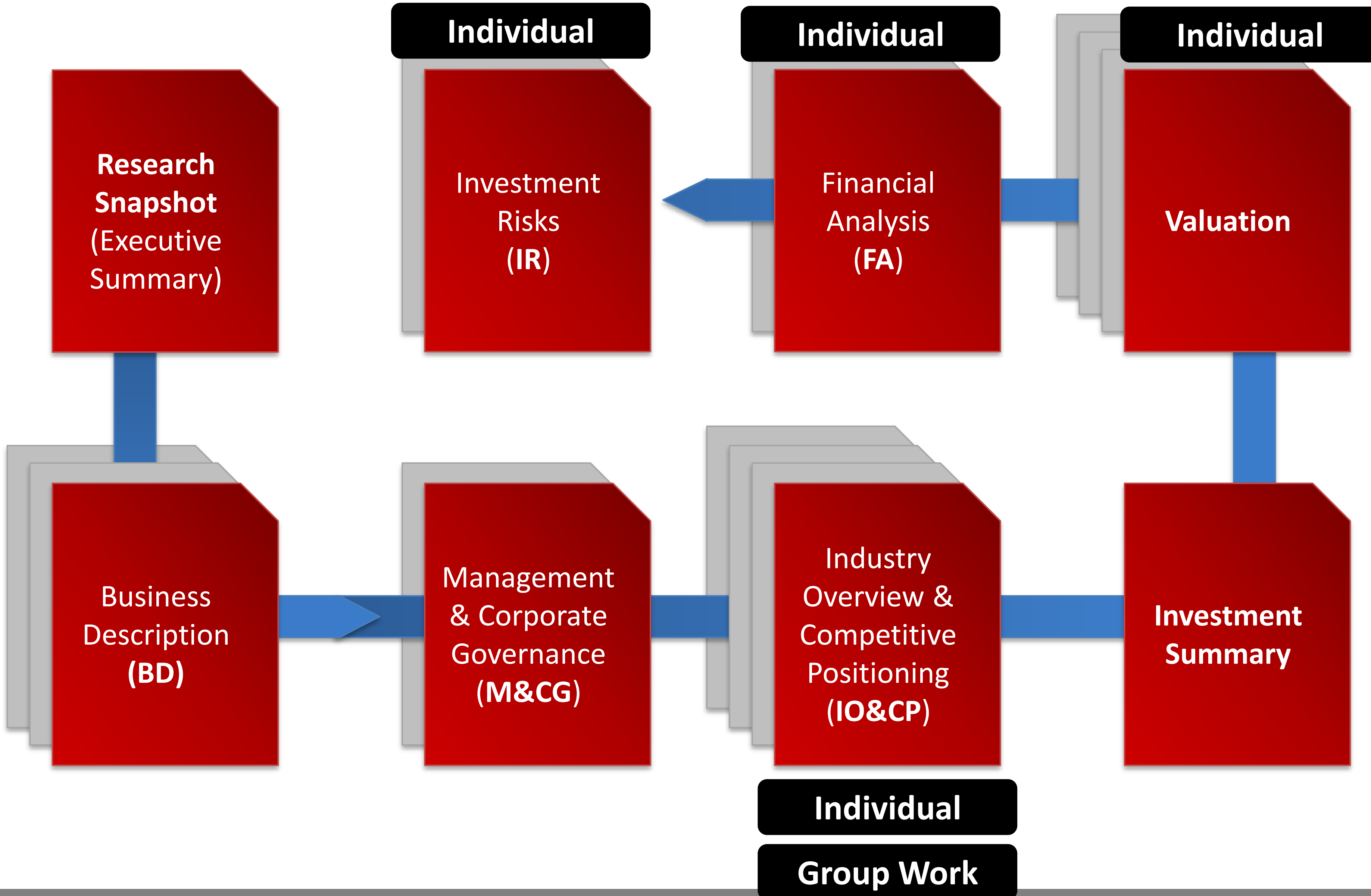
Equity Research Report

RESEARCH DESIGN AND VALUATION PROCESS

EQUITY RESEARCH REPORT:
RESEARCH DESIGN AND VALUATION PROCESS



Research Snapshot (Executive Summary)

Investment recommendation

Three to four topics to justify the investment thesis

Be as concise as possible!!!

Research Snapshot (Executive Summary)

Research Snapshot (Executive Summary)

Recommendation System

Level of Risk	SELL	REDUCE	HOLD/NEUTRAL	BUY	STRONG BUY
High Risk	0%≤	>0% & ≤10%	>10% & ≤20%	>20% & ≤45%	>45%
Medium Risk	-5%≤	>-5% & ≤5%	>5% & ≤15%	>15% & ≤30%	>30%
Low Risk	-10%≤	>-10% & ≤0%	>0% & ≤10%	>10% & ≤20%	>20%

Source: VB

Compare the upside with company's WACC

May need to annualize: 25% from 2019Q2 to 2020YE is ~16%/annually

Other scales may be used

Compared to a benchmark: **Underperform** / **Neutral** / **Outperform**

Weight in a benchmark portfolio: **Underweight** / **Neutral** / **Overweight**

Research Snapshot (Executive Summary)

Recommendation

Time horizon

Price target

Mota-Engil: Paving the Way

We initiate a **BUY** recommendation for Mota-Engil S.G.P.S., S.A (ME) with a 2017YE price target of **€2.35** using a DCF model, implying a 42% upside potential from the February 3rd 2016 closing price of €1.65, although with high risk. In a difficult market environment, ME is able to benefit from its overall strong track record and robust 21% EBITDA margins in Africa as well as resilient business performance in LATAM that are main drivers for a continuation of top line growth, increasing consistent free cash flow generation and company deleveraging.

Level of risk

Main drivers for
the recommendation

Four topics to justify the investment thesis

Research Snapshot (Executive Summary)

Segment: **LATAM**

Weathering Uncertainty in LATAM

Taking a conservative approach due to political and economic uncertainty in the region and recent exchange rate volatility, we forecast a 2017-2021 Revenue CAGR of 6.7% with a strong current €2.3 billion backlog, (35.6% 5-year CAGR) emphasizing the resistance of the company to recent industry headwinds. Expansionary activity of its waste management business in the region as well as a pending approval to increase capacity in the Mexican Energy Sector that currently contributes €35 million in Revenue and 40% in EBITDA margins provide further upside potential.

Segment: **Africa**

Diversifying its Presence in Africa

Mota-Engil is decreasing its dependence on its largest market Angola through business expansion to other countries, with a most recent $1B deal in Tanzania in which ME holds a 50% equity stake, that confirms the company's strong reputation and ability to diversify its African exposure. The 2017-2021 Revenue CAGR for the region is expected at 2.2%.

Segment: **Europe Environment & Services**

Strong Free Cash flow Contribution through EGF

Aiming at reaching medium term waste recyclying objectives in the Portuguese market, the company is generating substantial free cash flow expected to contribute 23% to ME's €191 million FCFF by 2021, spurred by increasing Revenue from higher margin waste treatment operations.

Deleveraging strategy

Balace Sheet Deleveraging in Expectation of Interest Rate Normalization

Recent Divestiture of non-core company assets Ascendi and Tertir in 2016 and January 2017, respectively, has had a positive impact on gross debt of around €490 million that is forecasted to see a further reduction of €170 million from generated cash flows reaching a net debt of €625 million by 2021. We estimate a combined effect of increased nominal EBIT margins and reduced interest expenditure to positively influence the company's interest coverage ratio doubling to 3.3 times by 2021 from current 1.7 relieving financial distress as financing rates are expected to revert to historical means.

Business Description (BD)

Detailed description of the company and its **products/services**

- Who is?
- What it does?
- Short history

Explanation of the company’s **operational segments/regions**

- Sales, production capacity, margins, etc.

Company economics: **key drivers of profitability** (revenues and expenses)

Company **strategies**

Shareholder structure

- Activist shareholders
- Active shareholders vs passive shareholders (ETF related/unrelated to indexes/sectors)

Management & Corporate Governance (M&CG)

- Who runs the company?
- Management with **experience in the industry**?
- Are the company's **strategies suitable** with the current management?
- **Stock ownership** by management?
- **Independent managers**?

You should critique the company's management and board!

Look to special cases (risk of entrenchment?):

- Family firms
- One shareholder with more than 50% of voting shares

Investment Summary

Brief description of the company

Significant recent developments

Earnings forecasts

Valuation summary

Investment recommendation

Clear and concise explanation of the rationale for your recommendation

Investment Summary

Investment recommendation

Investment Summary

Our recommendation for ME stands at **BUY**, with a 2017 YE target price of € 2.35, representing a 42% upside potential to the company's stock price of € 1,65 at Feb 3rd, 2017, but with high risk. We attribute the company's undervaluation to excessive investor pessimism regarding its EM exposure and leverage that is fundamentally unjustified with an average forecasted 2017-2021 CAGR of 4.4% for its Emerging Markets business segments and a gross debt reduction of 27% for the 2015-2017 period to € 1.4 Bn.

Brief description of the company, recent developments, and earnings forecasts

With respect to Mota-Engil's core business, the company is market leader in a mostly saturated Portuguese market that is expected to show little revenue and margin variation and a highly fragmented Polish construction sector that is expected to see a 2017-2021 Revenue CAGR of 3.4%. Volatility reduction in Africa as a result of commodity price stabilization will be a major determinant of Revenue development in the region that is expected to grow at a 5 year CAGR of 6.5%. To limit dependence on individual economic regions in Africa, ME looks for geographic diversification that was recently facilitated through an awarded project in Tanzania worth about € 510 million. Business in LATAM is plagued by high political and economic uncertainy that jeopardizes planned infrastructure investments in ME's main markets Mexico and Brasil, forecasted to see top line CAGR of 4,4% and 11,1%, respectively that will be subject to currency translation.

Rationale for the recommendation

Through vertical integration of Suma and EGF in the Portuguese Waste Management business, ME is increasing its operational diversification with a modest forecasted CAGR of 1.8% for the following 5 year period with profitability expected to increase 525 Bps as a result of the integration to an average EBITDA Margin of 30%. Due to environmental objectives to reduce less profitable and unsustainable Waste treatment processes, the company might further increase profitability margins in the future. Being well established in its external markets, ME will seek opportunities to expand its expertise in Waste Management and create synergies through its two subsidiaries EGF and SUMA abroad.

Valuation

Thorough analysis of the subject company

Use both **absolute** and **relative** valuation models

More than one model should be used because model outputs can vary significantly.

Explain in detail (at least):

- Your prospects for the main drivers of profitability (revenues and costs)
- Detail the proxy for cost of capital
- Identify the peer group for the relative valuation approach

Financial Analysis (FA)

Examples of most common **financial ratios**:

Efficiency Ratios	Profitability Ratios	Liquidity Ratios	Solvency Ratios	Price Ratios
• Asset Turnover • Inventory Turnover • Days Sales Outstanding (DSO) • Days Payables Outstanding (DPO) • Days Inventory Outstanding (DIO) • Cash Conversion Cycle (CCC) = DSO + DIO - DPO	• Gross margin • EBITDA margin • EBIT margin • Net Profit margin • ROA • ROE • ROCE • SG&A/Sales	• Current Ratio • Quick Ratio • Cash Ratio	• D/E • Equity Multiplier • Interest Coverage Ratio • Debt to EBITDA	• P/E • Price to Sales • Price to Book • Dividend Yield

Financial Analysis (FA)

Check for **industry-specific ratios**:

Hotel Industry	Airline Industry	Media	Banks	Retail Industry	Manufacturing Industry	Logistic
RevPAR (revenue per room)	**RPK** (revenue passenger kilometers)	**Power Ratio** (advertising revenue ÷ audience share)	**CAR** (capital adequacy ratio)	**Sales per square foot**	**Maintenance and repair costs to total expenses**	**Revenue per kilometer**
ADR (average daily room rate)	**ASK** (Available Seat Kilometers)		**LTD** (loan-to-deposit)			
	PLF (passenger load factor)					
	Passenger Yield					
	Cargo Yield					

Investment Risks (IR)

Look to the downside!

Operational Risks

- Decrease in demand
- Rising price of raw material
- Strikes
- New player enters the market
- Governance risks
- Many others…

Market Risks

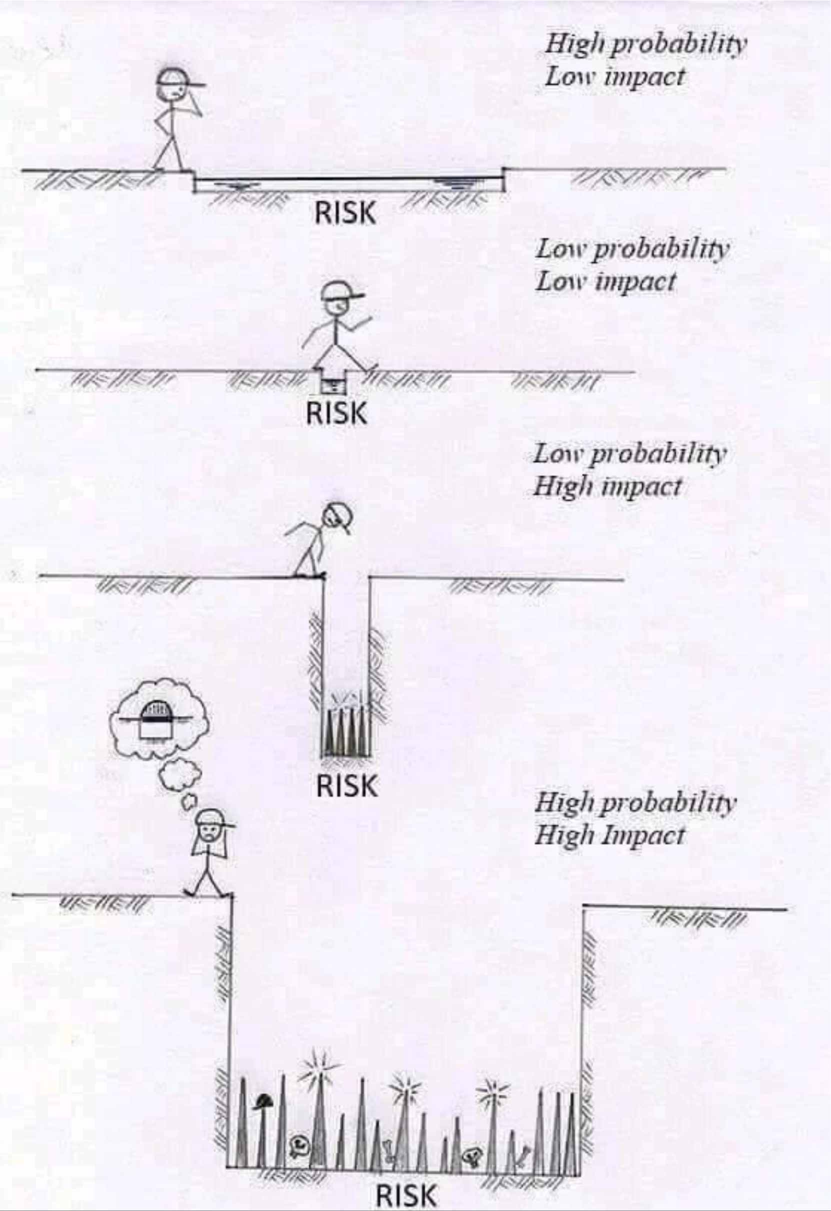
- Increase in interest rates
- Exchange rate effects
- Increase in prices of commodities
- Inflation / Deflation
- Many others…

Regulatory and Legal Risks

- Pollution regulations
- Compliance costs
- Taxation
- Production restrictions
- Many others…

Investment Risks (IR)

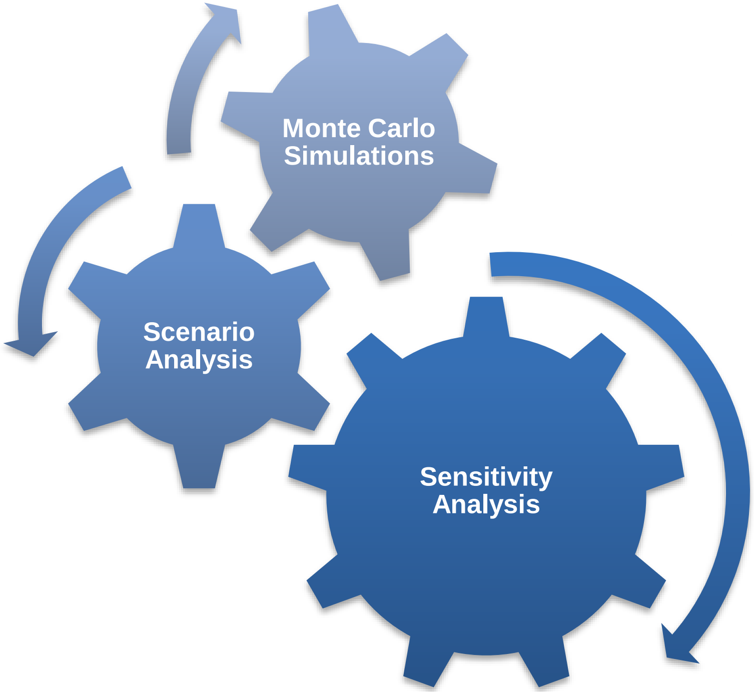
Look to the downside!

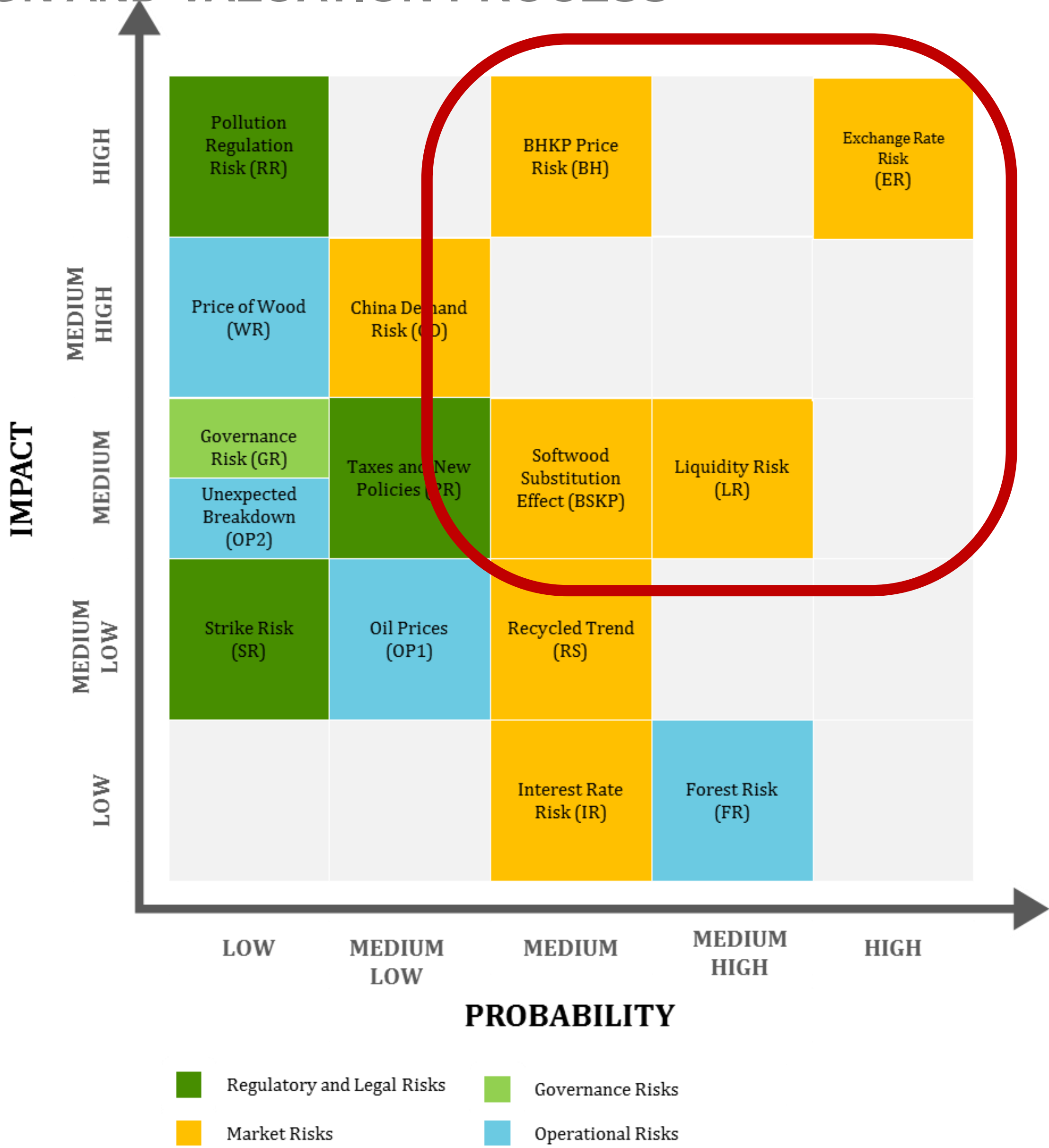


Investment Risks (IR)

Understand how these risks can jeopardize your recommendation

Stress the risks!





Investment Risks (IR)

Sensitivity Analysis

Change in EURO/USD	Change in BHKP prices (USD)			
2016F	-10	-	10	
1.00	5.45	5.84	6.22	
1.03	4.57	4.96	5.34	
1.05	4.00	4.39	4.77	
1.06	3.72	4.10	4.48	
1.07	3.44	3.83	4.21	
1.09	2.89	3.27	3.65	
1.12	2.07	2.46	2.84	

CRP (country risk premium)	7.0%	6.0%	5.0%	4.2%	3.0%	2.0%	1.0%
DCF (SoP) fair price	1.17	1.30	1.45	1.59	1.81	2.04	2.31
Change to initial price target	-26%	-18%	-9%		14%	29%	45%

Sensitivity Analyses are critical to assess the change in price target with variations in input variables. Sensitivity Analysis with one, two or three inputs may well be performed in the same Table.

Chosen inputs must be related to drivers of long-term growth and/or be highly volatile.

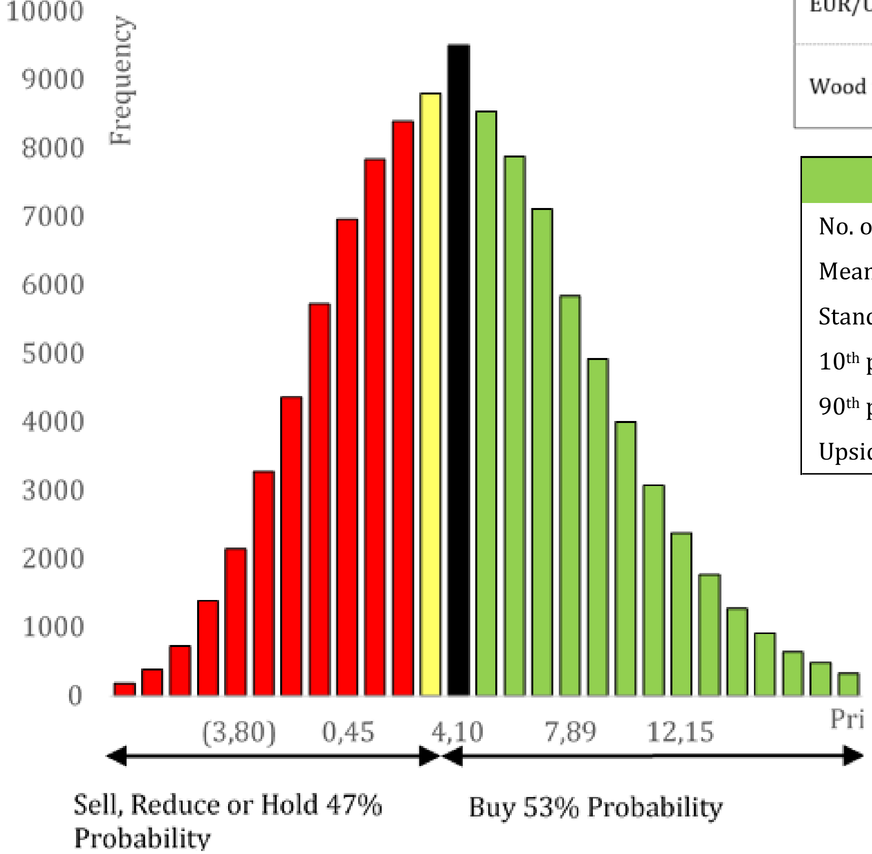
Investment Risks (IR)

Scenario Analysis

Sensitivity Analysis for ALTRI Valuation			
Variables	**Low estimate**	**Base case**	**High estimate**
BHKP price	670	730	790
Target Price*	**1.69**	**4.10**	**6.32**
EUR/USD	1.00	1.06	1.12
Target Price*	**5.84**	**4.10**	**2.46**
Wood prices	62.15	68.78	75.91
Target Price*	**5.14**	**4.10**	**2.93**
WACC	6.0%	8.3%	11.0%
Target Price*	**5.86**	**4.10**	**3.08**
Terminal growth	1.1%	1.5%	2.0%
Target Price*	**3.89**	**4.10**	**4.40**

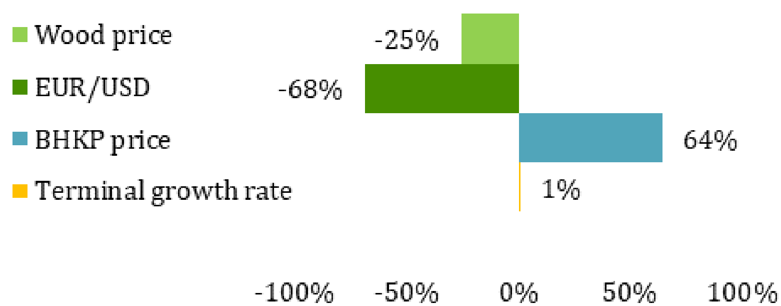
Investment Risks (IR)

Monte Carlo Simulations



Variable	Mean	Std. Dev	Distribution	Explanation
Terminal Growth	1.50%	0.15%	Normal	Checks the sensitivity changes of the terminal growth on the target price.
BHKP price	730.08	73.11	Normal	Checks the sensitivity changes of the BHKP prices on the target price.
EUR/USD	1.06	0.11	Normal	Checks the sensitivity changes of the EUR/USD exchange rate on the target price.
Wood price	68.75	6.85	Normal	Checks the sensitivity changes of the Wood prices on the target price.

Monte Carlos statistics	
No. of trials	100,000
Mean	4.45
Standard deviation	5.04
10^{th} percentile	(1.74)
90^{th} percentile	11.02
Upside potential	56%



All relevant information has to be included in previous sections, while all other information (relevant but not-critical for the investment recommendation) should be included in **Appendices**.

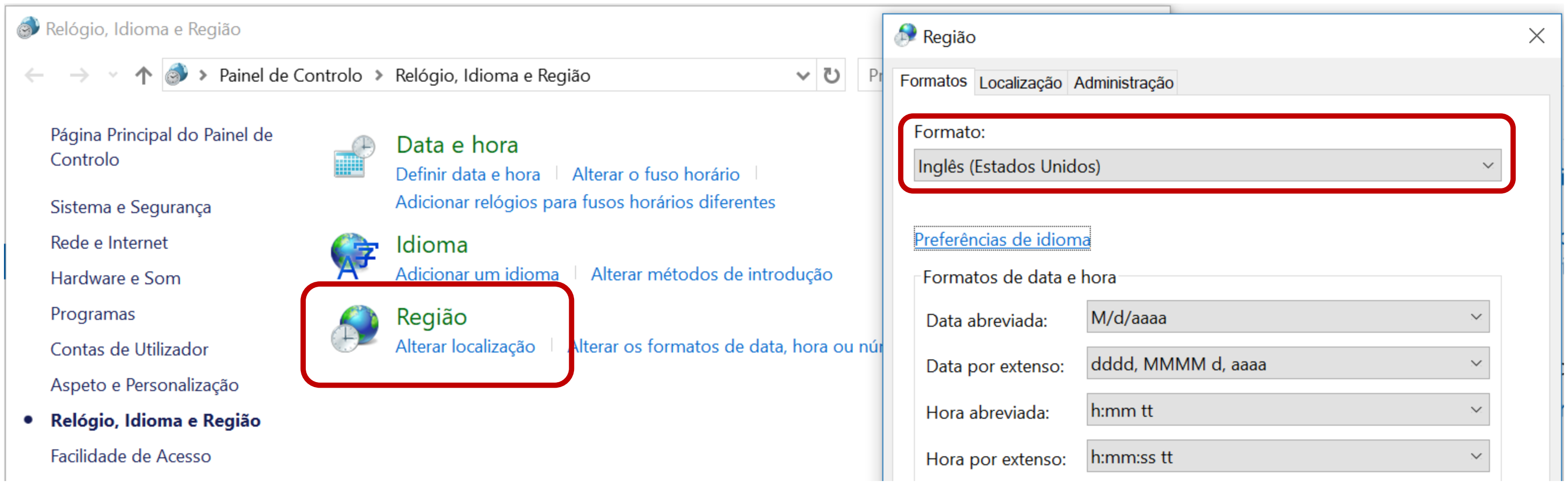
Appendix 1: Income Statement
Appendix 2: Statement of Financial Position
Appendix 3: Income Statement per Segment
Appendix 4: Cash Flow Statement
Appendix 5: Key Financial Ratios
Appendix 6: Common-Size Income Statement
Appendix 7: Common-Size Statement of Financial Position
Appendix 8: Common-Size Income Statement per Segment
Appendix 9: Forecasting Assumptions
Appendix 10: Business Structure
Appendix 11: Valuation Methods
Appendix 12: Competitors Analysis
Appendix 13: Competitors Resume
Appendix 14: Forecasting Analysis
Appendix 15: Discounted Cash Flow
Appendix 16: Peer Selection
Appendix 17: Peers Strategies
Appendix 18: Return on Equity
Appendix 19: Risk Matrix

2

Building a Valuation Model with Excel

PRACTICAL TIPS

Set your Windows/Mac Region and Language settings to English (United States).



Aim to keep numbers in the US format when copy/paste Tables and Figures from Excel:

EUR12,623.2

~~EUR12.623,2~~

Figure 4. Net Debt/ EBITDA

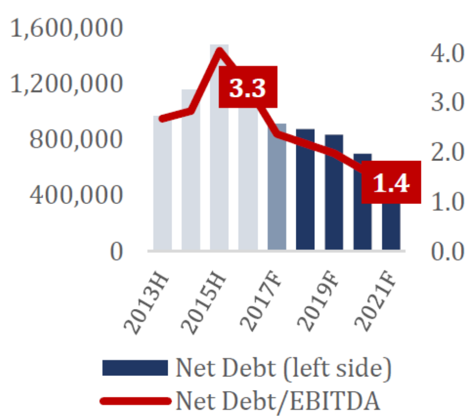
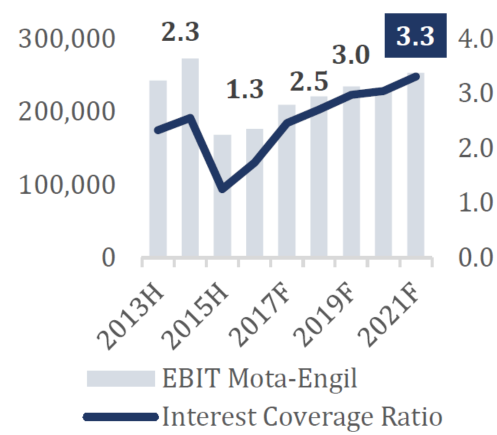


Figure 27. Interest Coverage Ratio

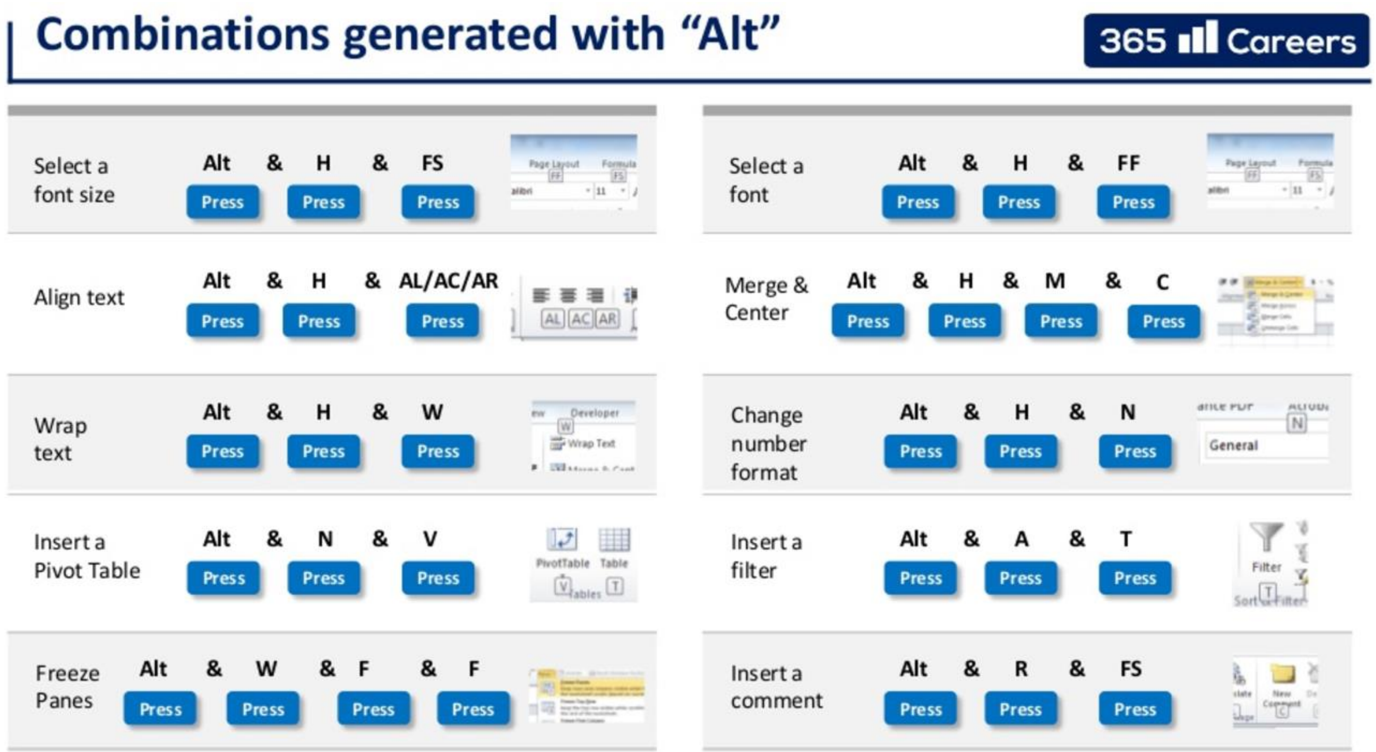


EQUITY RESEARCH REPORT: **PRACTICAL TIPS**

Take a course (Online or at your University) on

Financial Modeling and Valuation with **Excel**

Excel's keyboard shortcuts will save you <u>weeks of work</u>!



EQUITY RESEARCH REPORT: **PRACTICAL TIPS**

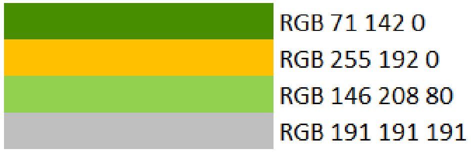
Information embedded into an Excel file can be very complex to track. Thus, is recommended **creating an intuitive and coherent Excel file**. The pieces of the "puzzle" (i.e., sections of the Equity Research) must be built separately, although easily combined to show up the "entire picture".

For the purpose of the Master's Final Work, the Excel file must to be delivered along with the written report. In the viva voce examination you might be challenged by the jury members (especially by the discussant), thus creating a strong valuation model with Excel is required for your success in the Master.

EQUITY RESEARCH REPORT: **PRACTICAL TIPS**

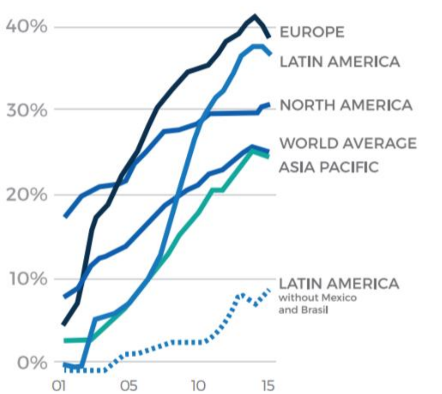
Figures and **Tables** are extremely important for an analyst to communicate its analyses and conclusions. Thus, is recommended to:

- Create templates for Figures and Tables;
- Be consistent with formats, including colors;
- Create self-explanatory Figures and Tables;
- Don't forget to include sources.



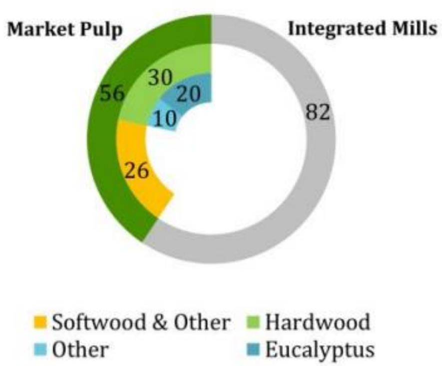
Here are some examples of good looking Figures…

Figure 20 Low Cost Carriers Market Share (%)



Source: Transportation Infrastructure and Logistics (ALG), and CAPA, OAG, ELFAA data

Figure 10. Virgin Wood Fiber Consumption (million tonnes), 2014



Source: *Fibria, RISI and PPPC*

Figure 3. EBITDA per region, in €'Bn

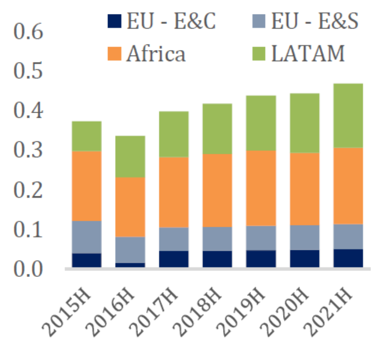
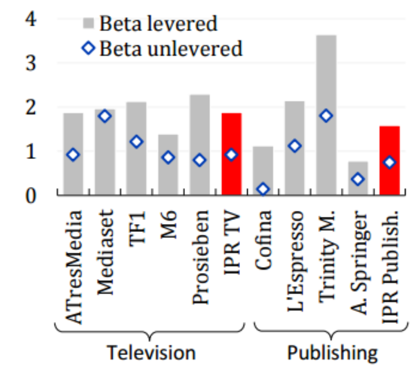
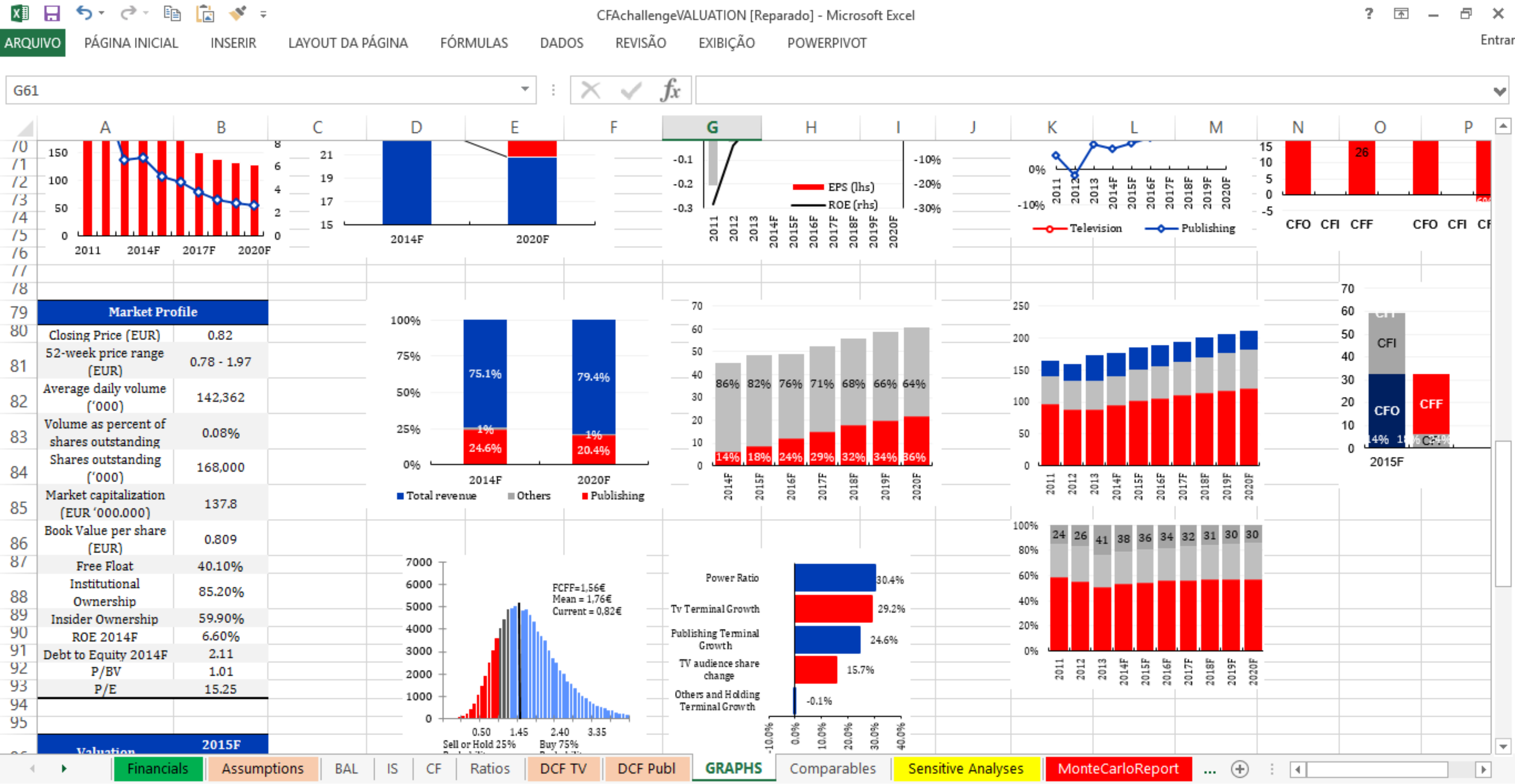


Figure 17: Beta computation regressed against STOXX Europe 600



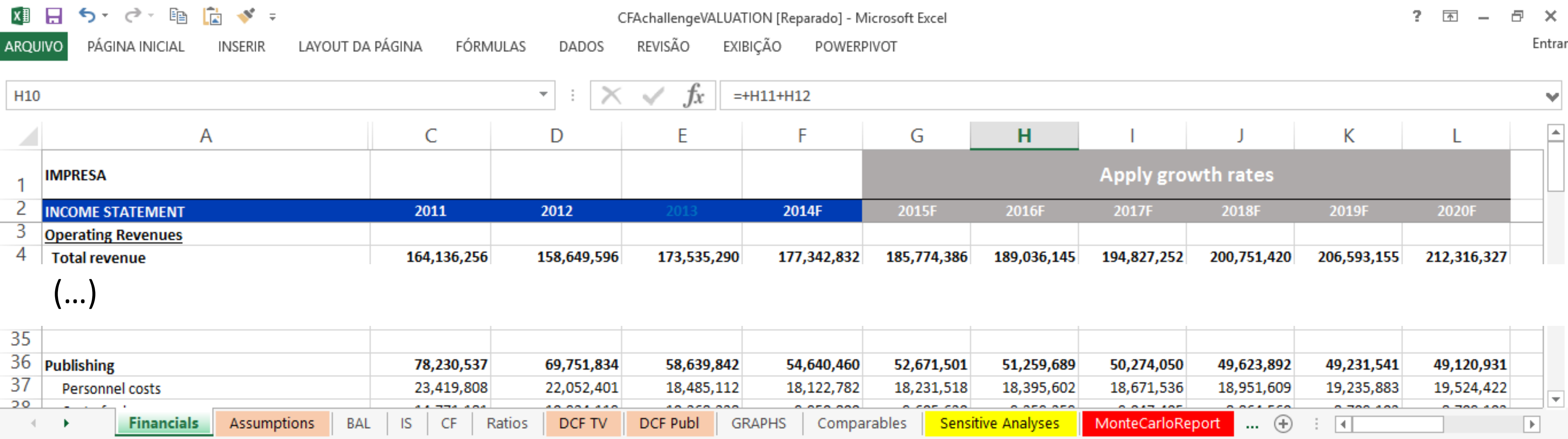
Source: Team estimates

EQUITY RESEARCH REPORT: **PRACTICAL TIPS**



Figures and Tables are an important component for an analyst to communicate its research. Create **high quality** Figures and Tables and **link** them in the same Excel file, so they can be **automatically updated** with changes in its inputs.

STRUCTURING AN EXCEL FILE FOR VALUING A COMPANY



	A	C	D	E	F	G	H	I	J	K	L
1	IMPRESA					Apply growth rates					
2	INCOME STATEMENT	2011	2012	2013	2014F	2015F	2016F	2017F	2018F	2019F	2020F
3	Operating Revenues										
4	Total revenue	164,136,256	158,649,596	173,535,290	177,342,832	185,774,386	189,036,145	194,827,252	200,751,420	206,593,155	212,316,327
	(...)										
35											
36	Publishing	78,230,537	69,751,834	58,639,842	54,640,460	52,671,501	51,259,689	50,274,050	49,623,892	49,231,541	49,120,931
37	Personnel costs	23,419,808	22,052,401	18,485,112	18,122,782	18,231,518	18,395,602	18,671,536	18,951,609	19,235,883	19,524,422

Sensitivity and Simulation Analyses

Valuation (Absolute and Relative Valuation Methods)

Financial **Ratios**

Cash Flow Statement **CF**

Income Statement **IS**

Balance Sheet **BS**

Assumptions for the Forecasts

Historical and Forecasted Financial Statements

It is highly recommended that all sheets, except Financials, are **presented in a format ready to be copied to the report**

STRUCTURING AN EXCEL FILE FOR VALUING A COMPANY

CFAchallengeVALUATION [Reparado] - Microsoft Excel

ARQUIVO | PÁGINA INICIAL | INSERIR | LAYOUT DA PÁGINA | FÓRMULAS | DADOS | REVISÃO | EXIBIÇÃO | POWERPIVOT | Entrar

H10 | =+H11+H12

Historical Data | Forecasts | Apply growth rates

	A	C	D	E	F	G	H	I	J	K	L
1	**IMPRESA**										
2	**INCOME STATEMENT**	2011	2012	2013	2014F	2015F	2016F	2017F	2018F	2019F	2020F
3	**Operating Revenues**										
4	**Total revenue**	**164,136,256**	**158,649,596**	**173,535,290**	**177,342,832**	**185,774,386**	**189,036,145**	**194,827,252**	**200,751,420**	**206,593,155**	**212,316,327**
5	TV AD revenue	96,882,975	87,384,979	88,250,010	94,546,762	101,292,795	106,174,375	109,892,544	113,740,921	117,724,066	121,846,699
6	Subscription revenues	43,108,776	45,100,995	44,427,380	45,029,605	48,639,930	49,030,230	52,620,052	55,836,155	58,516,502	60,659,817
9	Multimedia	16,874,113	19,856,666	34,075,115	31,366,465	28,873,127	26,598,458	24,740,409	23,207,966	21,933,317	20,865,161
10	Others	7,270,392	6,306,957	6,782,785	6,400,000	6,968,533	7,233,081	7,574,247	7,966,378	8,419,270	8,944,650
13											
14	**Publishing**	**81,593,808**	**68,658,736**	**63,129,719**	**58,001,670**	**56,959,530**	**56,282,204**	**55,465,153**	**54,969,841**	**54,522,851**	**54,457,673**
15	Advertising revenues	36,725,458	29,851,255	27,951,195	25,759,514	25,585,208	25,497,667	25,404,565	25,293,367	25,157,271	24,994,044
19	Sales of publications	34,545,254	30,434,584	27,322,029	26,083,755	25,178,970	24,533,427	23,715,711	23,236,424	22,828,929	22,828,929
20	Associated products	4,919,527	3,545,484	4,195,525	3,656,025	3,677,962	3,711,063	3,766,729	3,823,230	3,880,579	3,938,787
21	Other revenues	5,403,568	4,827,413	3,660,970	2,502,376	2,517,390	2,540,047	2,578,148	2,616,820	2,656,072	2,695,913
22											
23	**Others**	**4,061,404**	**1,749,444**	**511,989**	**702,717**	**706,933**	**713,296**	**723,995**	**734,855**	**745,878**	**757,066**
28		**249,791,467**	**229,057,776**	**237,176,998**	**236,047,219**	**243,440,850**	**246,031,644**	**251,016,400**	**256,456,116**	**261,861,884**	**267,531,066**
29	**Operating Expenses**										
30	**Television**	**141,500,556**	**135,850,989**	**143,798,636**	**146,268,856**	**149,577,124**	**152,917,533**	**156,048,922**	**157,256,250**	**160,434,793**	**163,650,775**
31	Personnel costs	27,707,475	26,738,877	26,722,198	25,937,540	26,093,166	26,328,004	26,722,924	27,123,768	27,530,625	27,943,584
32	Programming costs	76,403,879	73,264,267	71,393,047	71,489,871	74,349,466	77,012,826	79,005,644	81,019,817	83,054,814	85,110,095
33	Restructuring costs	946,804	229,656	0	0	0	0	0	0	0	0
34	Other Costs	36,442,398	35,618,189	45,683,391	48,841,444	49,134,493	49,576,703	50,320,354	49,112,665	49,849,355	50,597,095
35											
36	**Publishing**	**78,230,537**	**69,751,834**	**58,639,842**	**54,640,460**	**52,671,501**	**51,259,689**	**50,274,050**	**49,623,892**	**49,231,541**	**49,120,931**
37	Personnel costs	23,419,808	22,052,401	18,485,112	18,122,782	18,231,518	18,395,602	18,671,536	18,951,609	19,235,883	19,524,422

Financials | Assumptions | BAL | IS | CF | Ratios | DCF TV | DCF Publ | GRAPHS | Comparables | Sensitive Analyses | MonteCarloReport | ...

Forecasts should be linked to **Assumptions**, which should indeed be linked with the **Industry Overview & Competitive Positioning**.

ASSUMPTIONS (1/2)

The most difficult sheet to build???

The **Assumptions** sheet links all sections of the Equity Research.

Historical data are linked up with forecasts in this sheet.

It’s also here where the Business Structure and the Industry Overview & Competitive Positioning is linked with the Forecasted Financial Statements, and consequently with the Valuation section.

Main drivers of long-run free cash flow have to be linked to company’s fundamentals and matched with industry outlook and with economic outlook in countries where the company operates.

ASSUMPTIONS (2/2)

CFAchallengeVALUATION [Reparado] - Microsoft Excel

ARQUIVO PÁGINA INICIAL INSERIR LAYOUT DA PÁGINA FÓRMULAS DADOS REVISÃO EXIBIÇÃO POWERPIVOT

J6

Expected Inflation Rate	0.6%	0.9%	1.5%	1.5%	1.5%	1.5%	Expected Inflation Rate - PwC Projections
Income Statement	**Change**						**Assumption**
	2015F	**2016F**	**2017F**	**2018F**	**2019F**	**2020F**	
Television segment							
Advertising revenues	7.1%	4.8%	3.5%	3.5%	3.5%	3.5%	Same growth in 2015 as in 2014. For the remaining foreseen period growth is equal as 1.5 times the forecast advertising investment in Television as in the Portugal E&M Outlook, PwC
Change in audience share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	Besides an expected decrease in audience share in SIC FTA (free-to-air) channel, IPR also has subscription channels that should compensate the FTA decline.
Subscription revenues (domestic)	2.8%	-7.0%	1.5%	1.5%	1.3%	1.1%	Growth as in the Portugal E&M Outlook, PwC; adjusted by a decrease in 2016 from the negotiation with PT (recently acquired by Altice) and Vodafone
Subscription revenues (international)	40.0%	36.0%	25.2%	17.6%	12.3%	8.6%	Significant potential increase from a small base and USD/EUR favorable forecasts. From 2017 onwards higher decline in growth due to Angola GDP constrains
Multimedia	-7.9%	-7.9%	-7.0%	-6.2%	-5.5%	-4.9%	Adjustment to 2012 level due to expected regulation of IVR; adjusted for expected inflation rate
Other revenues (sale of contents)	100.0%	19.8%	19.7%	19.7%	19.7%	19.7%	Double in 2015 and constant growth at 20%; adjusted for expected inflation rate
Other revenues (B2B)	0.6%	0.9%	1.5%	1.5%	1.5%	1.5%	Expected Inflation Rate
Personnel costs	0.6%	0.9%	1.5%	1.5%	1.5%	1.5%	Expected Inflation Rate
Programming costs	4.0%	3.6%	2.6%	2.5%	2.5%	2.5%	Transition period in 2015 arising from the increase in the creation of IPR own contents (two soap opera per year and other contents) and due to the new channel; although

Financials | Assumptions | BAL | IS | CF | Ratios | DCF TV | DCF Publ | GRAPHS | Comparables | Sensitive Analyses | MonteCarloReport | ...

Each component of forecasted Financial Statements must have a **sound assumption**

In this sheet detail the Assumptions for all items in the BS and IS. In the **Investment Summary** section must be provided a thorough explanation regarding the forecasts for the critical items in the financial statements (e.g., revenues, major operational costs, CAPEX, etc.).

HOW TO **FORECAST** FINANCIAL STATEMENTS? (1/4)

Income Statement

- Sales Forecast
- Expenses

Most of the time, forecasting begins with estimates for all sources of revenue.

The company's revenues forecast may depend on a trend relative to prior years, although is recommended to link revenues with industry outlook and also economic outlook for the countries where the company operates.

A **top-down approach** or a **bottom-up approach** on the Industry Overview will influence how revenues are forecasted (we will return to this in Chp. 3)

HOW TO **FORECAST** FINANCIAL STATEMENTS? (1/4)

Income Statement
- Sales Forecast
- Expenses

Cash Flow Statement
- Change in NWC
- Investing Activities
- Financing Activities

Match the forecasts in the Income Statement with changes in NWC in order to obtain CFO.

CAPEX, Other Investments, and Disposals comprise major components of CFI.

CFF includes (but is not limited to) Dividends, Financial Expense/Revenue, and Net Borrowing.

US GAAP and IFRS have several differences regarding the classification of items in the Cash Flow Statement

HOW TO **FORECAST** FINANCIAL STATEMENTS? (1/4)

Income Statement
- Sales Forecast
- Expenses

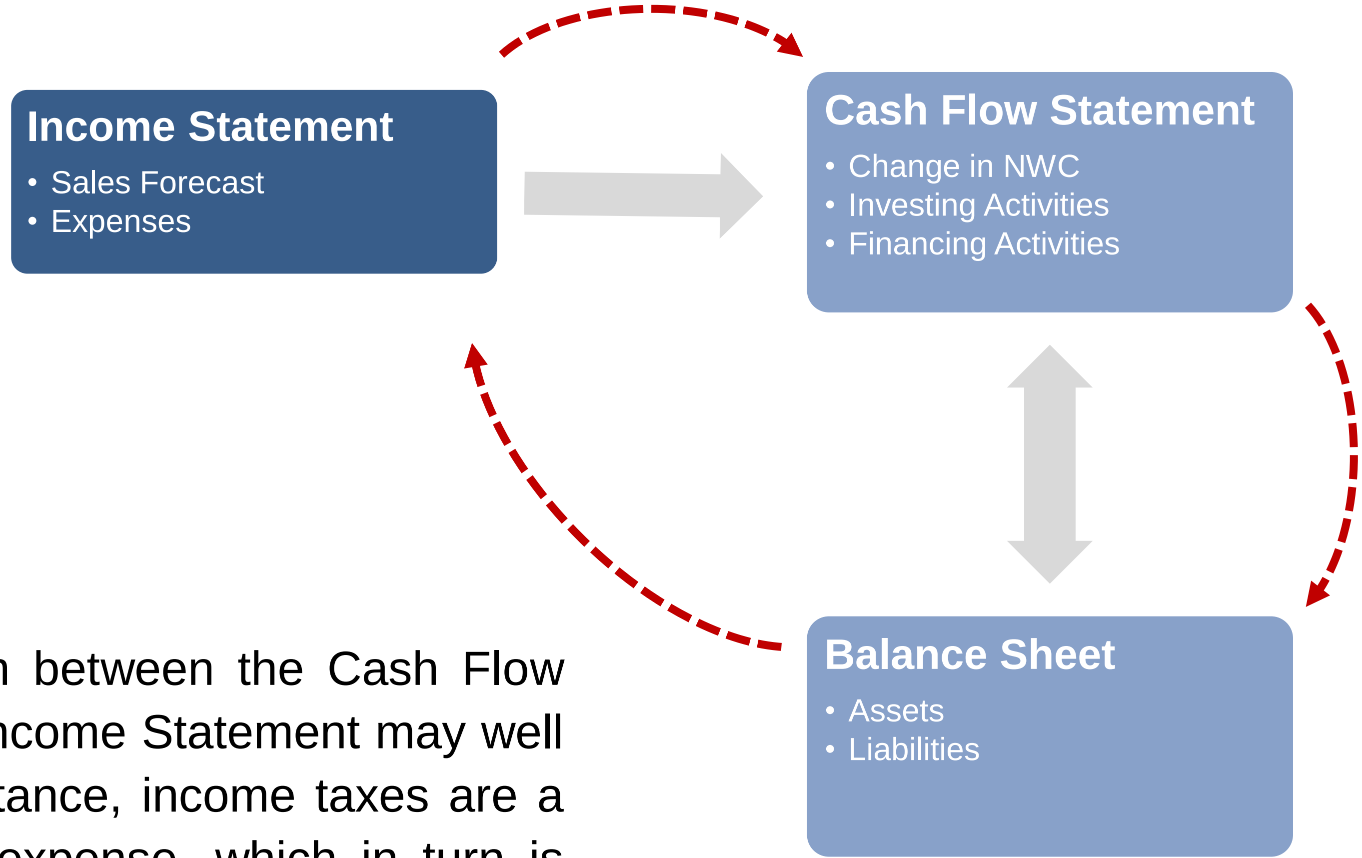
Cash Flow Statement
- Change in NWC
- Investing Activities
- Financing Activities

Balance Sheet
- Assets
- Liabilities

The amount of borrowing (or debt repayment) is a function of cash flow requirements (in excess), which requires circular interactions between the Cash Flow Statement and the Balance Sheet. Such amount considers both company´s strategy and CFO.

To obtain Changes in NWC, interactions with Balance Sheet are critical (e.g., forecast the amount of receivables considering either the amount of receivables in prior periods or a target receivables days ratio).

HOW TO **FORECAST** FINANCIAL STATEMENTS? (1/4)



A circular interaction between the Cash Flow Statement and the Income Statement may well be required. For instance, income taxes are a function of interest expense, which in turn is dependent on Net Borrowing (BAL + CF).

Income taxes also considers the current tax expense (IS) and deferred tax assets and liabilities (BAL).

3

Understanding Equity Research Report Writing

STYLE AND ABBREVIATIONS

TP Buy rating of €37.5/sh TP (Buy, TP €37.5/sh)

2017YE / YE2017 Target price of €5.40 for 2017YE

2017HYE / HYE2017 Target price of €5.40 for 2017HYE (fiscal year ends in June – BHP Billiton, Football Clubs, etc.)

2017FY / FY2017 Increase in FY EPS forecast by 1.3% to €1.03

FY2017E We trim EPS forecasts by 0.5% for FY17E-19E and FY17E sales by 0.3%.

2017E / 2017e Revenues for 2017E are of €6.42bn

2017F Revenues for 2017F are +6% to €6.42bn

CY17 The Company trades on CY16 P/E of 28.6x.

Q2 …company reported strong Q2 (Apr-Jun) results
Q2 results were almost exactly in line with our forecasts…
Very strong Q2
Net cash was EUR5.4bn in Q4 2016 versus EUR4.8bn in Q3 2016
Revenues have increased by 11.5% (vs. 1Q15) to €4.88bn
EBIT growth of 1.2% in Q1 to €705m confirms solid…
Disposals lead to Q2 EBIT up 90bps and Q2 EBT +7% to €955m
Q2 sales up 12% to €4.88bn with LFL up an estimated 11%

2Q2016 / 2Q16 Company's 1Q16 financial expenses drop 85bps yoy

H1 / H2 …input costs are expected to equalize in H2.
Company H1 results on 21 August 2017.
Revenues have increased by 11.5% (vs. 1H15) to €4.88bn

2H2016 / 2H16 Company's 1H16 financial expenses drop 120bps yoy

ABBREVIATIONS

QoQ / quarter-on-quarter Revenues fell 6% QoQ

Like-for-like / LFL / LfL very strong LFL sales

LHA reports LFL sales growth of 5.2% to €12.4bn

We view 5% to 6% LFL sales growth as …

We forecast +4% LFL sales in H2

Strong LFL sales growth, but profits held back by currency impacts

(excludes effects from M&A and others)

YOY / yoy / YoY / Y/Y/ year-on-year EBITDA was €955m +6.7% YOY with margins -80bps YOY

Operating cash flow allowed net cash balances to grow by €905m YoY

With net cash +22% YOY thanks to muted CAPEX requirements

ABBREVIATIONS

Calendar 2016	18x calendar 2016 PE
CAGR	…growing at a CAGR of 2.7% during 2017-2021. Estimated 11.4% EPS CAGR We look for a +11.4% 2016-20E CAGR in EPS
RFR	Risk Free Rate
ERP	Equity Risk Premium
MRP	Market Risk Premium
CRP	Country Risk Premium
COGs	Cost of Goods Sold

ABBREVIATIONS

EUR1,420.2 million / EUR1.42bn / EUR1.42 billion / €1,420.2m / €1.42bn / €1.42 billion

USD1.42bn / US$1.42bn

Income Statement **(EUR m) / (EUR ‘000,000) / (€ m)**

P&L Profit and Loss

bps basis points → 1% = 100bps, one basis point is 1/100th of 1%

Gross margin reached 58.1%, down 130bps versus Q1 2015 (slightly better than expected)

FX FX (foreign exchange)

FX sales growth of 2.3%

Avoid sentences without data to support your arguments:

Through vertical integration of Suma and EGF in the Portuguese Waste Management business, ME is increasing its operational diversification with a modest forecasted **CAGR of 1.8%** for the following 5 year period with profitability expected to **increase 525 bps** as a result of the integration to an average **EBITDA margin of 30%**.

Through vertical integration of Suma and EGF in the Portuguese Waste Management business, ME is increasing its operational diversification with a modest forecasted **growth** for the following 5 year period with profitability expected to **increase** as a result of the integration to an average **EBITDA margin of 30%.**

Avoid sentences without data to support your arguments:

Taking off non-recurrent profits, 2016YE EBIT was **€1.04bn –4.7% YOY**.

The usage of tax credits in 2016 led net profit to **increase in YOY 550 bps to €985m**, with **margins above industry average at +8.7%**.

Taking off non-recurrent profits, 2016YE EBIT **margin decreased**.

The usage of tax credits in 2016 led net profit to increase **comparing with 2015**, with margins above industry **average**.

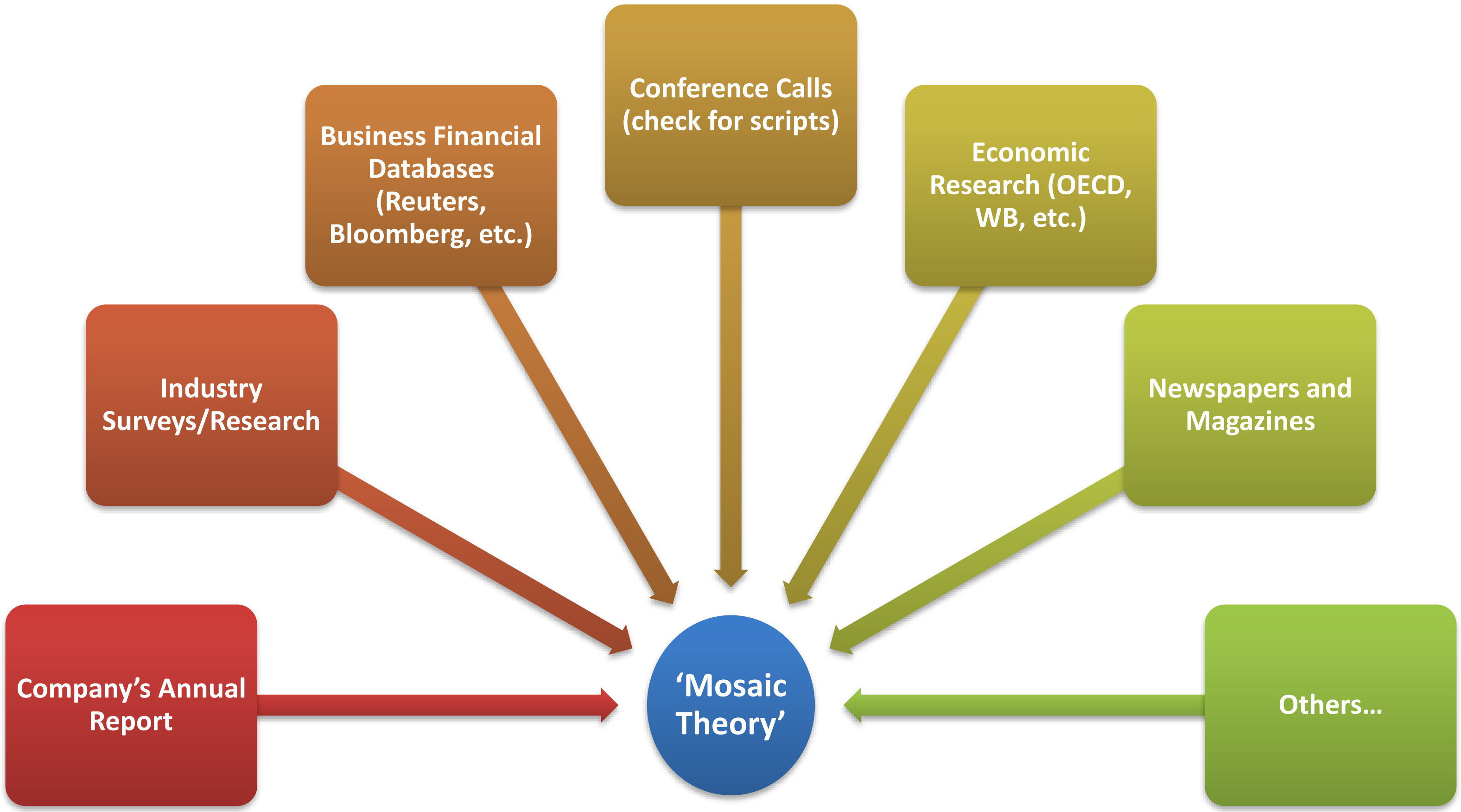
(EUR bn)	2015	2016	D
Revenues	10.680	11.292	*5.7%*
EBIT (adjusted)	1.091	**1.040**	***-4.7%***
EBIT margin	*10.2%*	*9.2%*	
Net Profit	0.344	**0.985**	
Net Profit Margin	*3.2%*	***8.7%***	***5.5%***

4

Exploring Sources of Information

COMPANY’S FINANCIALS, REUTERS, AND BLOOMBERG

EXPLORING SOURCES OF INFORMATION



"The **mosaic theory** suggests that the analysis of a company form a mosaic; that is, by assembling small bits of nonpublic information together, large and meaningful conclusions can be drawn. The idea behind the mosaic theory is that each individual piece of information is nonmaterial by itself. Think of the mosaic theory as a way for analysts to do their jobs and use nonpublic information without feeling like they are at risk for liability under insider trading law. "

EXPLORING SOURCES OF INFORMATION

Company's Disclosures may not tell the entire story

Analysts should look to **non-recurring items**, **discrepancies** and **unclear disclosures**

Managers are overconfident – often overestimate company's prospects!

(Hribar and Yang, 2016)

Analyze **conference calls** to assess the accuracy of your predictions

- Explanations
- Sentences construction

Bloomberg records/transcripts several conference calls

Bloomberg Transcript

EXPLORING SOURCES OF INFORMATION

Example:

EDP 2016 Results Presentation

2016 Results: Full delivery of commitments

	Guidance May-16	Guidance July-16	Reported	Main highlights
EBITDA	>€3.6bn	~€3.75bn	**€3.759bn**	Good energy management and hydro production Delivery of +6% avg. capacity (all renewables)
Net Profit	~€900m	~€950m	**€961m**	Interest costs -14% ??? One-offs neutral below EBITDA: Negative on financials (mostly debt prepayments); Positive on taxes (4Q16)
Net Debt	~€16.5bn	~€16.0bn	**€15.9bn**	Regulatory receivables down by 62% Negative impact from forex (-€0.3bn)
Dividend	€0.19	€0.19	**€0.19**[(1)]	+3% YoY 72% pay-out

EXPLORING SOURCES OF INFORMATION

EDP 2016 Results Presentation

Company Participants

- **António Mexia, Chief Executive Officer**
- **Nuno Alves, Chief Financial Officer**
- **Miguel Viana, Head of Investor Relations**

António Mexia:

Hello, good morning, everybody. Thanks for being on the phone for the conference call on our 2016 results. And my first words would be to highlight that I like the figures that we have in front of us. We have full delivery of all our commitments for the year in all the key financial metrics. And the first page, I think, it shows it rather well. In May, when we met during Investors Day, we had given a guidance that was already at that moment slightly above consensus. We revised the guidance in July, and we now present the figures that in all lines are better than the guidance that we have given revised in July.

(…)

Below EBITDA in 2016, we have several negative one-offs on financial results, mostly related to the anticipated payments of some more expensive debt and the similar amount of positive one-offs at the tax level which together compensate each other resulting in almost neutral impact at net profit level.

(…)

So, basically, I believe that a lot of today will be about one-offs and about debt.

EDP 2016 Results Presentation

Profit & Loss Items below EBITDA

Profit & Loss Items below EBITDA (€ m)	2016	2015	Δ %	Δ Abs.
EBITDA	**3,759**	**3,924**	**-4%**	**-165**
Provisions	(15)	16	-	-31
Amortisation and impairment	1,510	1,465	3%	46
EBIT	**2,264**	**2,443**	**-7%**	**-179**
Net financial interest	(813)	(892)	9%	79
Capitalized financial costs	58	84	-31%	-26
Net foreign exchange differences and derivates	(18)	(35)	50%	17
Investment income	4	12	-67%	-8
Unwinding w/ pension & medical care responsibilities	(44)	(44)	-1%	-1
Capital Gains/(Losses)	14	(1)	n.m.	14
Other Financials	(92)	43	-	-135
Financial Results	**(891)**	**(833)**	**-7%**	**-59**
Share of net profit in joint ventures and associates	**(22)**	**(24)**	**8%**	**2**
Pre-tax Profit	**1,351**	**1,587**	**-15%**	**-236**
Income Taxes	**89**	**278**	**-68%**	**-189**
Effective Tax rate (%)	*7%*	*18%*	-	*-10.9 pp*
Extraordinary Contribution for the Energy Sector	**62**	**62**	**-1%**	**-0**
EDP Renováveis	125	114	9%	11
EDP Brasil	117	207	-43%	-90
Other	(3)	14	-	-16
Non-controlling Interests	**240**	**334**	**-28%**	**-95**
Net Profit Attributable to Shareholders of EDP	**961**	**913**	**5%**	**48**

EXPLORING SOURCES OF INFORMATION

Another example….

MOTA ENGIL Q1 2016 Earnings Call

Bloomberg Transcript

Antonio Seladas, Analyst

Hi. So your cash flow generation over the quarter, and even that we see 245 million from the sale of Ports and Logistics business, net debt decreased by 219 million more or less. So in spite even with working capital that went down, you were not able to -- and CapEx was low for taking into consideration you are seeing for the year, you were not able to get like free cash flow.

So in that I don't understand what I'm missing because the working capital went down, CapEx was low, and so apparently you lost money somewhere else that we don't understand. Could you help us and explain?

Unclear figures???

Joao Vermelho, Director, Head of Investor Relations

Hi, Antonio, thank you for your question. First of all, as I am sorry to say it probably five times during this call, but the first quarter is always a very weak quarter and typically we do not make money in the first quarter.

So unfortunately despite the huge improvement in cash flow, as far as the cash flow evolution is concerned, it was not as impressive as going from a negative cash flow to positive cash flow.

So we reduced significantly the cash burn in the first quarter. If you look typically, we typically lose quite some money in the first quarter. And fortunately despite the fact that we also lost in this quarter, it was much less than usual. And it is true that if you exclude the contribution from the disposal of (inaudible) the cash burn was of EUR34 million.

EXPLORING SOURCES OF INFORMATION

Another example….

MOTA ENGIL Q1 2016 Earnings Call

What is the reason for Antonio's question?

€'000
FREE CASH FLOW FROM OPERATING ACTIVITIES
EBITDA
Income Tax
NWC
FREE CASH FLOW FROM INVESTING ACTIVITIES
CAPEX
Other Investments
FREE CASH FLOW FROM FINANCING ACTIVITIES
Financial Income/Expenses
Dividends
Treasury buyback
Loan Payments

NET CASH FLOW
Beginning balance of Cash
Ending balance of Cash

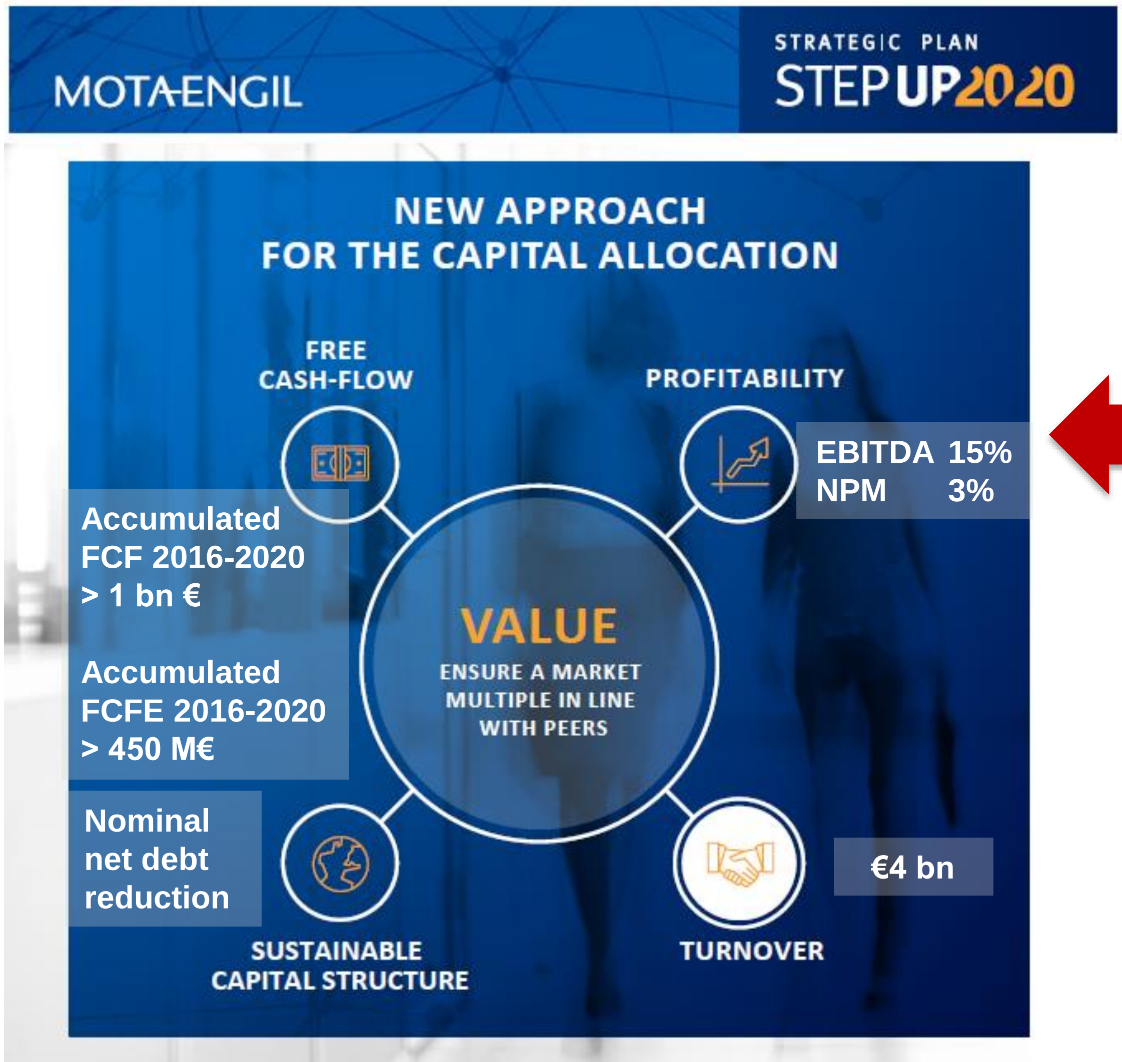
???

EBITDA was significantly lower – potential seasonality?

Burn rate: the amount of $ a company spends to finance overhead costs before generating positive CF

EXPLORING SOURCES OF INFORMATION

Company Strategies: Do not rely entirely on company's targets



Analysts' estimates

CaixaBI Investment Bank

	2019YE
Turnover	€2,633m
EBITDA m	16.0%
NPM	2.8%
FCF	€131m
	2016-2019YE
Accm FCF	€534.1m

5

Communicating Valuation Results

PRESENTATION

PRESENTATION

1:03:00

PRESENTATION

1:36:00

PRESENTATION

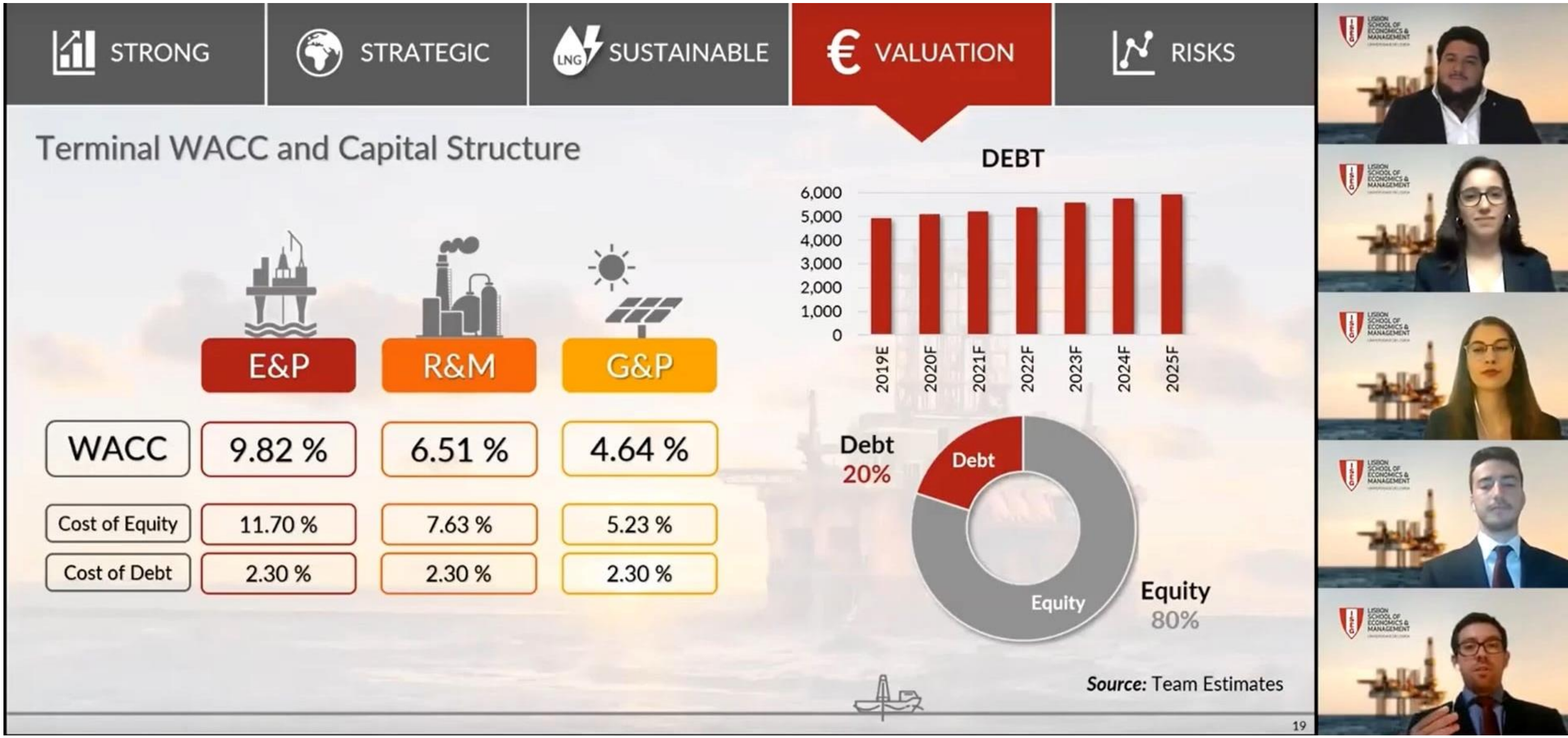
PRESENTATION

ISEG in the EMEA Final 2018

PRESENTATION

ISEG in the EMEA Final 2019

PRESENTATION



ISEG in the EMEA Final 2020