How to evaluate a Company

following a DCF Approach

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**ABSTRACT**

*When we evaluate a company we want to have a reasonable answer to how much would we pay for that company, considering its economic value. Since any valuation is ultimately an opinion, it’s very important to focus the valuation and to follow a correct procedure in order to get a final reasonable valuation. This paper discuss a methodology to get a reasonable valuation following a discounting cash flow approach.*

**INTRODUCTION**

When dealing with valuation, the key question to answer is very clear and it can be formulated in the following way:

*What is the value of this?*

By *value* we mean economic value, not other kind of values, like sentimental value, or accounting value.

By *this* we normally mean Assets. And we mean any kind of Assets. Tangible, material Assets, like warehouses, machines, buildings, stores, etc. Intangible, nonmaterial Assets, like any goodwill, a patent, a brand, etc. Or financial Assets, like a minority participation in a company, or a bond issued by the Government.

**VALUATION. DEALING WITH SUBJECTIVITY**

When we evaluate a company we want to have a reasonable answer to how much would we pay for that company, considering its economic value. This means that any valuation is an opinion and, like any opinion, it can be a very reasonable judgement, or an absolute stupidity.

How to avoid stupidities and get reasonable opinions? By focusing the valuation we want to make. To focus any valuation we have to understand:

1. What we want to evaluate
2. For what purpose we want to evaluate a company: value for what
3. From what perspective we want to evaluate a company: value for whom
4. Under what circumstances we want to evaluate a company

For example, if we want to evaluate a digital company, like Google, first of all we have to focus the valuation:

1. What Google we want to evaluate? The one coming from the past, or a new Google based in future projects?
2. Assuming we want to evaluate Google based on its future, we have to decide the value of this Google for what. In the context of a possible M&A? To estimate the value of a minority shareholder for an eventual IPO?
3. Having decided the Google we want to evaluate (future Google in the context of a possible M&A with other company, for example), now we have to determine the value for whom. Value from the seller’s perspective? Value from the buyer’s perspective? Value from the perspective of a third party, also interested in an eventual acquisition?
4. Finally, keeping in mind the above points, we have to consider the circumstances, both internal and external, under which we are making the valuation. Is the economy in a huge recession? Is the industry booming? Are the sellers in a hurry to finish the operation?

After focusing the valuation, we can catch the reasonable economic value of a company using an extrinsic and an intrinsic approach. Both approaches of economic value are complementary and related.

How to know if the extrinsic economic value is reasonable? By being convinced that the Capital Market is not over/under valuated (for public companies), or that we are using information of companies, multiples and transactions which are comparable with the company we want to evaluate (in the case of private companies). To judge about the reasonability of any comparable previously we have to focus the valuation.

The reasonability of an intrinsic economic value is related to the assumptions we make on the expected FCFs and on the WACC, to get a reasonable EV. Note that to judge whether any assumption is reasonable, we also need to focus the valuation.

**STEPS IN AN INTRINSIC VALUATION**

Having focused the valuation, an intrinsic valuation based on Discounted Cash Flows (DCF) should include the following steps:

Step 1: Estimate the expected FCF of the company, including a Terminal Value (TV).

Step 2: Estimate the associated Capital Structure of the company for the expected FCF.

Step 3: Estimate the expected Firm Value or Enterprise Value (EV), and the expected economic value of the equity (E).

Step 4: Analyze the expected profitability associated to the valuation

Step 5: Estimate the expected Financial Statements of the company.

An example will help to clarify these points.

**AN EXAMPLE OF INTRINSIC VALUATION**

Let’s assume we want to evaluate a company called Emerald, Inc.

First of all, we have to focus the valuation. We want to catch a reasonable economic value of Emerald, Inc. Not in general, but in very specific situation:

What Emerald, Inc.: A future Emerald

What for: In the context of a possible M&A of Emerald Inc. from a competitor called LiterNetwork.

For whom: From the perspective of the buyer, including some expected synergies

In what circumstances: Both companies would be interested in making the deal.

Keeping this in mind, we can make the valuation following the already mentioned four steps.

Step 1: Estimate the expected FCF of the company, including a Terminal Value (TV)

The base and audited Balance Sheet of Emerald, Inc. is (in millions of Euros):

Net Current Assets 200

Gross Fixed Assets 8,000 Total Debt 1,607

Accum Depreciation -5,000

Net Fixed Assets 3,000 Total Equity 1,593

Total Net Assets 3,200 Total D + E 3,200

Based on this information, we know that the Enterprise Value (EV) of Emerald Inc. at accounting value is €3,200 million, and that the accounting value of its Equity (E) is €1,593 million.

Since the number of shares of Emerald Inc. is one million, the accounting value of a share is €1.593.

Let’s assume that a reasonable expected evolution of the FCF of Emerald, including all the reasonable synergies coming from the acquisition is the one summarized in Table 1.



These expected FCFs include an annual growth in Sales of 5% and some synergies in savings on costs and operational expenses.

To estimate the Terminal Value (TV) we can use the FCF of year 5 as a base to extrapolate an Enterprise Value equal to a perpetuity of this FCF, growing at reasonable rate (2%), and forever. If this were the case, the TV would be:

TV = FCFb x (1+g)/(WACC-g)

To estimate this TV we need to estimate the WACC.

Let’s start with the simpler scenario about capital structure, assuming that a reasonable capital structure for Emerald Inc., in this context, will be a constant one with 45D/55E in percentage. If this was the case, we can estimate the associated WACC.

Knowing that:

Debt 45%

Equity 55%

Kd 6.0%

Rf 4.0%

MP 4.0%

Beta e,u 1.10

Beta d 0.50

With this information we estimate the Beta e,l with 45% of leverage:

Beta e,l = Beta e,u + (D/E) x (Beta e,u – Beta d) = 1.59

Consequently,

Ke,l = Rf + MP x Beta e,l = 10.4%

And

WACC = Ke,l x (E/V) + Kd x (1-t) x (D/V) = 7.59%

 So, in the case of a constant capital structure of 45D/55E in percentage, the TV will be €5,829 m.

Does this TV make sense? Is it a reasonable TV?

Since this TV has been estimated based on a perpetuity of the last FCF, let’s analyze the reasonability of using this FCF as a base FCF to extrapolate the EV in last year.

The FCF of year 5 is broken down in three components:

FCF from Operations 393

FCF from Op WC -12

FCF from Capex -61

Total FCF 319

In the FCF from Operations we are assuming an EBIaT of 332. Since in year 5 the Total Net Assets would be 3,560 (see Table 2), then the implicit Return on Capital Employed (ROCE) is 9.3%.[[1]](#footnote-1)

Table 2



 On the other hand, in year 5 there are no new investments in the company. The only investment is a maintenance investment, equal to the Depreciation Expenses.

Consequently, if we use the FCF of year 5 as a base to extrapolate the EV of Emerald in year 5, we would be assuming that the company would be able to grow at 2%, forever, making no new investments and keeping a ROCE of 9.3%, when the WACC is 7.59%. Before accepting this EV as good, we should be convinced that this scenario makes sense…

Normally, it doesn’t, unless we understand how this company will grow not losing market share, making not new investments and keeping a competitive advantage which allows maintaining this ROCE, and forever...

Common sense tells us that we should include new investments in the FCF, and also to moderate the implicit ROCE.

Making these adjustments in the base FCF, we have that:

Adjusted EBIaT with a ROCE of 8% = 285

Adjusted FCF from Operations = 346

If we make adjustment in Capex to include annual new investments of 60, the FCF from Capex would be -121.

Consequently, the adjusted new base FCF, with a ROCE of 8% and new investments in Capex, would be:

FCF from Operations 346

FCF from Operat WC -12

FCF from Capex -121

Total Adjusted FCF 212

With this adjusted FCF, the TV becomes €3,876 million, a more reasonable TV than €5,829 million.

Step 2 & 3: Estimate the associated Capital Structure and the EV and E of the company for the expected FCF.

***Constant Capital Structure in percentage.***

If we assume that Emerald Inc. operated by LiterNetwork will have a constant capital structure of 45D/55E in percentage, we have all the elements to estimate the EV.

EV = PV FCF discounted at WACC = €3,513 million

Of course, E = EV – D = €1,932 million

Table 3 shows the expected evolution of these EV and E in millions of Euros.

Note that:

1. EV t =EV t-1 x (1+WACCt) – FCF t
2. To fulfill its estimated Capital Structure, the company should reduce its Debt from €1,593 m to €1,581 m.

In the case of having a constant (in percentage) Capital Structure of 45D/55E, the maximum estimated price per share of Emerald Inc. would be €1.932.



What would happen if we want to use a different capital structure?

***Changing Capital Structure in percentage***

Let’s assume now that LiterNetwork will operate Emerald Inc. with a changing Capital Structure, starting with the present amount of Debt and increasing the percentage of Debt, as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** | **Now** | **1** | **2** | **3** | **4** | **5** |
|  |  |  |  |  |  |  |
| Debt | 1,607 | 45.0% | 50.0% | 55.0% | 60.0% | 60.0% |

If we use a more leveraged Capital Structure, the EV will be higher, as detailed in Table 4.



We can double check these values, by calculating the Present Values of the FCF and FCF to Shareholders or Equity Cash Flow (ECF):





Now, the maximum estimated price of a share of Emerald Inc. would be €2.058

***Changing Capital Structure in total amount of Debt***

In some cases, the Capital Structure for M&A like this must be negotiated with the financial entities in terms of total maximum amounts of Debt, rather than in percentages at economic value.

Let’s assume that’s the case and that, after negotiations, we have a very specific evolution of the Debt, as follows (figures in millions of Euros):

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** | **Now** | **1** | **2** | **3** | **4** | **5** |
|  |  |  |  |  |  |  |
| Debt | 1,607 | 1,800 | 1,900 | 2,000 | 2,100 | 2,200 |

Using this amount of Debt, the evolution of the Capital Structure will be as shown in Table 5.

Note that the EV with this Capital Structure (€3,590 m) is higher than the EV with a Capital Structure with constant percentage of Debt (€3,513 m), and lower than the EV associated to a Capital Structure with the variable percentage (€3,665 m).



Again, we can double check these values, by calculating the Present Values of the FCF and FCF to Shareholders or Equity Cash Flow (ECF):

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** | **Now** | **1** | **2** | **3** | **4** | **5** |
| FCF to discount | 31 | 154 | 274 | 296 | 319 |
| TV |  |  |  |  |  | 3,973 |
| Total FCF to discount | 31 | 154 | 274 | 296 | 4,292 |
|  |  |  |  |  |  |  |
| Discount Factor | 1.076 | 1.157 | 1.244 | 1.338 | 1.437 |
|  |  |  |  |  |  |  |
| FCF at PV |  | 29 | 133 | 220 | 221 | 2,986 |
|  |  |  |  |  |  |  |
| EV | 3,590 |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** | **Now** | **1** | **2** | **3** | **4** | **5** |
| FCF |  | 31 | 154 | 274 | 296 | 319 |
| Financ Exp (1-t) | -68 | -76 | -80 | -84 | -88 |
| Evolut of Principal | 193 | 100 | 100 | 100 | 100 |
| ECF |  | 156 | 178 | 295 | 312 | 331 |
|  |  |  |  |  |  |  |
| TV |  |  |  |  |  | 1,773 |
|  |  |  |  |  |  |  |
| ECF to discount | 156 | 178 | 295 | 312 | 2,104 |
|  |  |  |  |  |  |  |
| Discounting Factor | 1.103 | 1.220 | 1.349 | 1.495 | 1.660 |
|  |  |  |  |  |  |  |
| ECF at PV |  | 142 | 146 | 218 | 209 | 1,267 |
|  |  |  |  |  |  |  |
| E | 1,982 |  |  |  |  |  |

Now, the maximum estimated price of a share of Emerald Inc. would be €1.982

***Capital Structure for a LBO***

Finally, we can assume that this operation would be financed following a leverage buy out (LBO) approach, using a very aggressive capital structure at the beginning and dedicating the FCF to the service of the Debt.

The initial amount of Debt and its associated service of Debt will depend on the expected generation of FCF from Emerald Inc.

Let’s assume that the new owners of Emerald Inc. are able to get Debt for €2,600 m. Dedicating all the FCF to the service of the Debt in the next 5 years, the expected evolution of the Capital Structure of this Emerald would be as shown in Table 6.



Note that we are assuming a higher cost of the Debt (Kd = 7%), reflecting the higher risk.

And the expected evolution of FCF and ECF would be:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** | **Now** | **1** | **2** | **3** | **4** | **5** |
| FCF to discount | 31 | 154 | 274 | 296 | 319 |
| TV |  |  |  |  |  | 4,156 |
| Total FCF to discount | 31 | 154 | 274 | 296 | 4,475 |
|  |  |  |  |  |  |  |
| Discount Factor | 1.070 | 1.144 | 1.225 | 1.312 | 1.407 |
|  |  |  |  |  |  |  |
| FCF at PV |  | 29 | 134 | 224 | 226 | 3,181 |
|  |  |  |  |  |  |  |
| EV | 3,794 |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** | **Now** | **1** | **2** | **3** | **4** | **5** |
| FCF |  | 31 | 154 | 274 | 296 | 319 |
| Financ Exp (1-t) | -127 | -132 | -131 | -124 | -116 |
| Evolut of Principal | 96 | -22 | -143 | -172 | -204 |
| ECF |  | 0 | 0 | 0 | 0 | 0 |
|  |  |  |  |  |  |  |
| TV |  |  |  |  |  | 2,001 |
|  |  |  |  |  |  |  |
| ECF to discount | 0 | 0 | 0 | 0 | 2,001 |
|  |  |  |  |  |  |  |
| Discounting Factor | 1.114 | 1.240 | 1.375 | 1.520 | 1.676 |
|  |  |  |  |  |  |  |
| ECF at PV |  | 0 | 0 | 0 | 0 | 1,194 |
|  |  |  |  |  |  |  |
| E | 1,194 |  |  |  |  |  |

Now we can summarize the expected EV of this company associated to the different scenarios in its Capital Structure, as follows:



Steps 4: Analyzing the expected profitability of the operation

The expected economic profitability of this operation will depend on the final price agreed. In this case, if the buyer accepts to pay the maximum price, the economic profitability for the shareholder of the buyer company would be its Ke,l, transferring all the economic value created in the operation to the seller.

This is an unreasonable scenario, so we have to assume that the agreed price will be lower than the maximum expected price.

Let’s assume that the agreed price is just the accounting price. So, the buyer (LiterNetwork) pays for Emerald (EM) a price of €1.593 per share.

What would be the expected economic profitability for the shareholders of LiterNetwork?

***Scenario 1: Constant CS in percentage***

We can estimate the ECF for this scenario, as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** | **Now** | **1** | **2** | **3** | **4** | **5** |
| FCF |  | 31 | 154 | 274 | 296 | 319 |
| Interest Exp (1-t) | -66 | -71 | -73 | -74 | -74 |
| Debt Amortization | 106 | 59 | 9 | 0 | -11 |
|  |  |  |  |  |  |  |
| ECF |  | 71 | 142 | 210 | 222 | 235 |
| TV |  |  |  |  |  | 2,132 |
|  |  |  |  |  |  |  |
| ECF |  | 71 | 142 | 210 | 222 | 2,367 |

If the buyer pays €1,593 m for the E, the associated economic profitability of the operation would be 15.30%, which is the IRR of all the ECF, including the initial payment.

Basically, the shareholder of LiterNetwork (LN) would get a yield of 15.30% because the buyer would pay €1.593 per share for a company with an estimated value of €1.932 per share.

***Scenario 2: Variable CS in percentage***

Considering the expected evolution of the ECF in this scenario, if LN pays for EM a price of €1.593 per share, the expected economic profitability for the shareholders of LN would be 18.34%, as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Years |  | **1** | **2** | **3** | **4** | **5** |
| ECF | -1,593 | 117 | 347 | 408 | 410 | 1,833 |
| IRR | 18.34% |  |  |  |  |  |

In this scenario the shareholder of LN would get a yield of 18.34% because the buyer would pay €1.593 per share for a company with an estimated value of €2.058 per share.

***Scenario 3: Variable CS in amount of Debt***

Considering the expected evolution of the ECF in this scenario, if LN pays for EM a price of €1.593 per share, the expected economic profitability for the shareholders of LN would be 16.66%, as shown:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Years |  | **1** | **2** | **3** | **4** | **5** |
| ECF | -1,593 | 156 | 178 | 295 | 312 | 2,104 |
| IRR | 16.66% |  |  |  |  |  |

In this scenario the shareholder of LN would get a yield of 16.66% because the buyer would pay €1.593 per share for a company with an estimated value of €1.982 per share.

***Scenario 4: Setting Up a LBO***

In this case the expected economic profitability for the shareholders of LN would be higher, because LN would finance the acquisition of EM with new amounts of Debt.

In fact, LN would pay €1,593 m for the E of EM, but it would finance this payment with new Debt (€993 m) and new E (€600 m).

Consequently, the expected economic profitability for the shareholders of LN would become 27.20%, as explained:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Years** |  | **Now** | **1** | **2** | **3** | **4** | **5** |
| Evolution of ECF | -600 | 0 | 0 | 0 | 0 | 2,001 |
|  |  |  |  |  |  |  |  |
| IRR |  | 27.2% |  |  |  |  |  |

Note that in this scenario the shareholder of LN would get a yield of 27.20% because the shareholder would pay €0.6 per share for a company with an estimated value of €1.194 per share, as a consequence of financing the acquisition with new Debt (€993 m).

A Summary is presented in Table 7



At this point, is very important to understand the difference between accounting profitability and economic profitability. If you were the CEO of LN and you wanted to explain your shareholders the expected profitability of this operation, buying at the accounting value, Table 7 would be the numbers you should use, for the different scenarios.

How do these numbers fit with the expected evolution of the Balance Sheet (B&S) and Profit & Loss (P&L) expected for EM?

Step 5: Estimate the expected Financial Statements of the company.

Let’s see the associated evolution of the Financial Statements of EM in scenario 4. Remember that EM would be acquired by LN at the accounting value of the E (€3,200 m), financing €2,600 m with Debt.

The initial B&S of EM after this operation would be:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Before | New  | New | Payment | After  |
|  |  | Acquistion | Debt | Equity | to Shareho | Acquisition |
|  |  |  |  |  |  |  |
| NET CURRENT ASSETS | 200 | 993 | 600 | -1,593 | 200 |
|  |  |  |  |  |  |  |
| GROSS FIXED ASSETS | 8,000 |  |  |  | 8,000 |
| ACUM DEPREC | -5,000 |  |  |  | -5,000 |
| NET FIXED ASSETS | 3,000 |  |  |  | 3,000 |
|  |  |  |  |  |  |  |
| TOTAL NET ASSETS | 3,200 |  |  |  | 3,200 |
|  |  |  |  |  |  |  |
| DEBT |  | 1,607 | 993 |  |  | 2,600 |
|  |  |  |  |  |  |  |
| EQUITY |  | 1,593 |  | 600 | -1,593 | 600 |
|  |  |  |  |  |  |  |
| DEBT + EQUITY | 3,200 |  |  |  | 3,200 |

Since we know the evolution of the Debt, we can estimate the evolution of the P&L of EM, as follows:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Years** |  |  | **1** | **2** | **3** | **4** | **5** |
|  |  |  |  |  |  |  |  |
| EBIT |  |  | 350 | 378 | 408 | 440 | 474 |
| Financ exp |  |  | 182 | 189 | 187 | 177 | 165 |
| EBT |  |  | 168 | 189 | 221 | 263 | 309 |
| Taxes |  |  | 50 | 57 | 66 | 79 | 93 |
| Net Earnings |  | 118 | 132 | 155 | 184 | 216 |

Consequently, the evolution of the B&S would be:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Years** |  | **INITIAL** | **1** | **2** | **3** | **4** | **5** |
|  |  |  |  |  |  |  |  |
| NET CURRENT ASSETS | 200 | 214 | 224 | 236 | 247 | 260 |
|  |  |  |  |  |  |  |  |
| GROSS FIXED ASSETS | 8000 | 8,250 | 8,403 | 8,458 | 8,516 | 8,576 |
| ACUM DEPREC | -5000 | -5,050 | -5,103 | -5,158 | -5,216 | -5,276 |
| NET FIXED ASSETS | 3000 | 3200 | 3300 | 3300 | 3300 | 3300 |
| Good will |  | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL NET ASSETS | 3,200 | 3,414 | 3,524 | 3,536 | 3,547 | 3,560 |
|  |  |  |  |  |  |  |  |
| DEBT |  | 2,600 | 2,696 | 2,674 | 2,531 | 2,359 | 2,155 |
|  |  |  |  |  |  |  |  |
| E |  | 600 | 718 | 850 | 1,005 | 1,189 | 1,405 |
|  |  |  |  |  |  |  |  |
| Total D + E |  | 3,200 | 3,414 | 3,524 | 3,536 | 3,547 | 3,560 |

Where the evolution of the E is:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Years** |  |  | **1** | **2** | **3** | **4** | **5** |
| INITIAL E |  |  | 600 | 718 | 850 | 1,005 | 1,189 |
| NET EARNINGS |  | 118 | 132 | 155 | 184 | 216 |
| ECF |  |  | 0 | 0 | 0 | 0 | 0 |
| FINAL E |  |  | 718 | 850 | 1,005 | 1,189 | 1,405 |

Based on this expected evolution of the Financial Statements, we can estimate the accounting profitability of EM, as follows:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Years** |  |  | **1** | **2** | **3** | **4** | **5** | **Average** |
| ROCE |  |  | 7.2% | 7.5% | 8.1% | 8.7% | 9.3% | 8.2% |
|  |  |  |  |  |  |  |  |  |
| ROE |  |  | 23.4% | 22.3% | 22.0% | 22.1% | 22.0% | 22.3% |

Where:

ROCE = EBIaT / TNA

ROE = EBT / E

Note that although the accounting profitability of the E of EM would be 22.3% (on average), the economic profitability for the shareholders is 27.24%, as discussed above.

**SUMMARY**

1. When we evaluate a company we want to have a reasonable answer to how much would we pay for that company, considering its economic value. This means that any valuation is an opinion and, like any opinion, it can be a very reasonable judgement, or an absolute stupidity.
2. To get a reasonable valuation we need to focus the valuation. To focus any valuation we have to clarify issues like: what we want to evaluate; for what purpose we want to evaluate a company; from what perspective we want to evaluate a company; under what circumstances we want to evaluate a company.
3. Contrary to common belief, relative (extrinsic) and fundamental (intrinsic) values are not incompatible, and are actually complementary. The difference between the two should serve to show the economic value of a control participation in the company.
4. To establish a reasonable price using the relative value it is important to make sure that the markets on which the comparison is based are comparable.
5. To obtain a reasonable price using the intrinsic value it is essential to understand the valuation model used, the business being valued, and how they adapt to each other.
6. Having focused the valuation, an intrinsic valuation based on Discounted Cash Flows (DCF) should include the following steps:
* Step 1: Estimate the expected FCF of the company, including a Terminal Value (TV).
* Step 2: Estimate the associated Capital Structure of the company for the expected FCF.
* Step 3: Estimate the expected Firm Value or Enterprise Value (EV), and the expected economic value of the equity (E).
* Step 4: Analyze the expected profitability associated to the valuation
* Step 5: Estimate the expected Financial Statements of the company.

**APENDIX**

Let’s assume that in the due diligences process to acquire Emerald, the buyers found some no operational assets:

1. Some Bad Debts that should have been written-off. Amount: €50 million
2. Some obsolete Inventories that should have been written-off. Amount: €20 million
3. Cash in excess of €10 million.

Since any of these no operational assets have been included in the initial balance sheet, the estimated EV is without them. We have to include adjustments in the EV, in order to get a reasonable economic value of the E.

For example, in scenario 1 the estimated economic value of the E would be:

EV without no operational assets = 3,513

* Adjustment for Bad Debts -50
* Adjustment for Obsolete Inv -20

 + Adjustments for Cash in excess 10

* Debt -1,607

 = E at econ value 1,846

1. ROCE = EBIaT/TNA [↑](#footnote-ref-1)