Corporate Finance – Guest Lecture

AALTO UNIVERSITY

MARKUS VESALA – COMPARABLES.AI - COFOUNDER

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Case study: Eniro / Asiakastieto dispute 8/2019

Disputed amount:

21.5m – 24.0m SEK

- Asiakastieto acquires Proff from Eniro in May 2019 for a consideration of 120m SEK
- Eniro disputes that a typo in the SPA caused a discrepancy between equity value and enterprise value and that this resulted in the net cash position of Proff being excluded from the transaction
- Eniro submits a request for arbitration against Asiakastieto for an amount totalling 21.5m – 24.0m SEK

Source: Kauppalehti

Agenda

1. Corporate Finance advisory as a profession

2. Introduction to valuations

3. Market based method

4. Cash flow based method

5. Asset based method

6. Summary

7. Useful resources

8. Comparables.ai opportunities / interview questions

Note! The example calculations contained in this presentation are illustrative examples only. This presentation has been prepared exclusively for Aalto University for education purposes only. Although this material endeavors to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. The information presented in this document has been prepared in good faith, however, the creator accepts no responsibility or liability to any party in connection with this presentation.

Abbreviations list

€	Euros
Capex	Capital expenditure / investments
D&A	Depreciation and amortization
DCF	Discounted cash flow
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, taxes, depreciation and amortization
EV	Enterprise value
IM	Information Memorandum
IRR	Internal rate of return
m	million
M&A	Mergers & acquisitions
NDA	Non-disclosure agreement
NWC	Net working capital
SPA	Sell and purchase agreement (alternatively share purchase agreement)
SEK	Swedish krona

Corporate Finance advisory as a profession

Markus Vesala
Co-founder, Comparables.ai

Comparables.ai

Education

- MSc. (Econ.) Finance, Aalto University, 2015 – 2019
- BSc. (Econ.) International Business, Aalto University, 2012 – 2015

Professional Experience:

- Comparables.ai
  - Co-founder (2020 –)
- KPMG Corporate Finance
  - Assistant Manager (10/2019 – 11/2019)
  - Senior Analyst (10/2018 – 9/2019)
  - Analyst (9/2017 – 9/2018)
- Point Capital
  - Analyst (2015 – 2017)

Selected corporate finance transaction experience:

- Financial advisor to Berner SE in the sale of Berner Kiinnitystekniikka Oy in a management buy-out
- Financial advisor to Berner SE in the sale of Metaplan Oy to Swedol Ab
- Financial advisor to the City of Viitasaari in the sale of Wiitaseudun Energia Oy to Jyväskylän Energia Oy
- Financial advisor to Voimaosakeyhtiö SF in combining the company's share series and securing financing for the arrangement
- Financial advisor to Kuusakoski Oy in the sale of its Lithuanian subsidiary to UAB Dorvina

Selected valuation project experience

- Valuation of Fourkind Oy
- Valuation of LocalBitcoins Oy

Corporate finance engagements include M&A, capital arrangements and valuations

Typical corporate finance engagements can include:

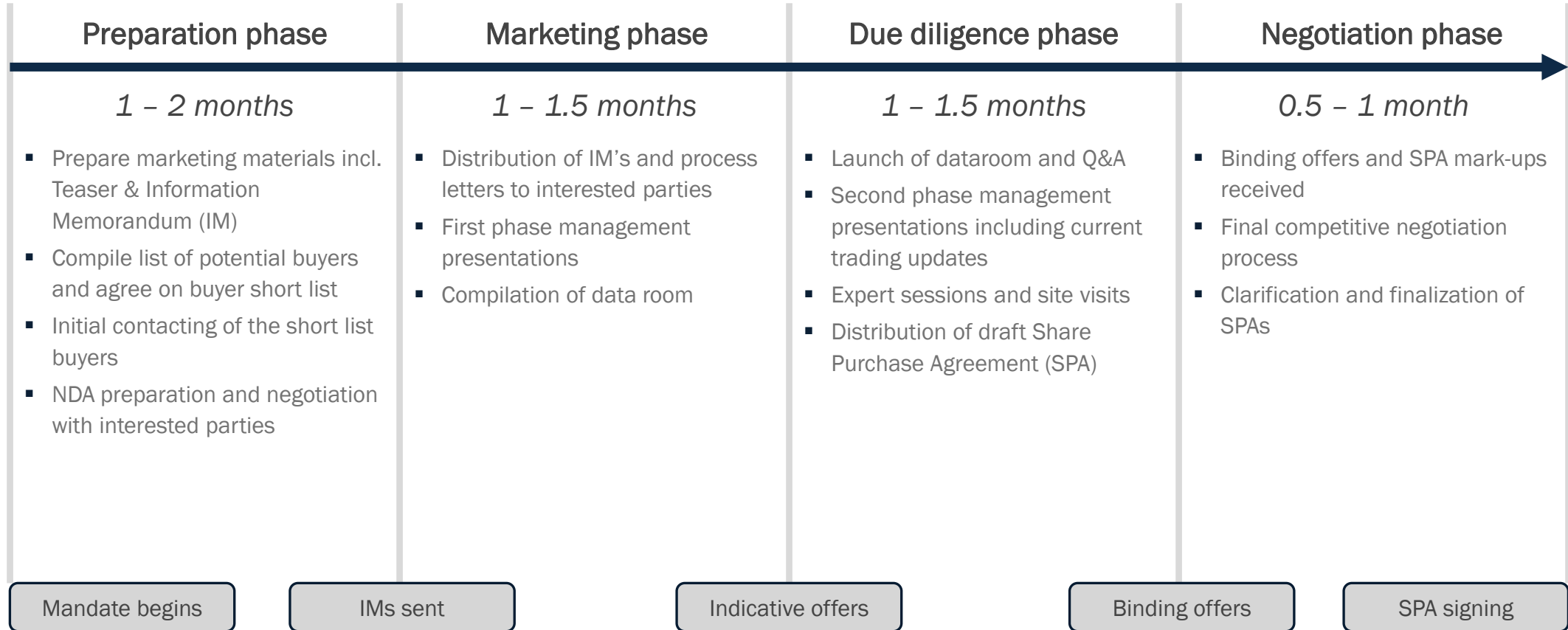| M&A – Sell side	M&A – Buy side	Equity offerings	Debt offerings
Capital advisory	Infrastructure advisory	Financial restructuring	Valuations

Example engagement: a sell-side M&A process

Preparation phase	Marketing phase	Due diligence phase	Negotiation phase
1 – 2 months	*1 – 1.5 months*	*1 – 1.5 months*	*0.5 – 1 month*
▪ Prepare marketing materials incl. Teaser & Information Memorandum (IM) ▪ Compile list of potential buyers and agree on buyer short list ▪ Initial contacting of the short list buyers ▪ NDA preparation and negotiation with interested parties	▪ Distribution of IM's and process letters to interested parties ▪ First phase management presentations ▪ Compilation of data room	▪ Launch of dataroom and Q&A ▪ Second phase management presentations including current trading updates ▪ Expert sessions and site visits ▪ Distribution of draft Share Purchase Agreement (SPA)	▪ Binding offers and SPA mark-ups received ▪ Final competitive negotiation process ▪ Clarification and finalization of SPAs

Mandate begins	IMs sent	Indicative offers	Binding offers	SPA signing

M&A processes are highly tailored to the requirements of the specific transaction

Introduction to valuations

Valuations can be utilized for numerous purposes including:
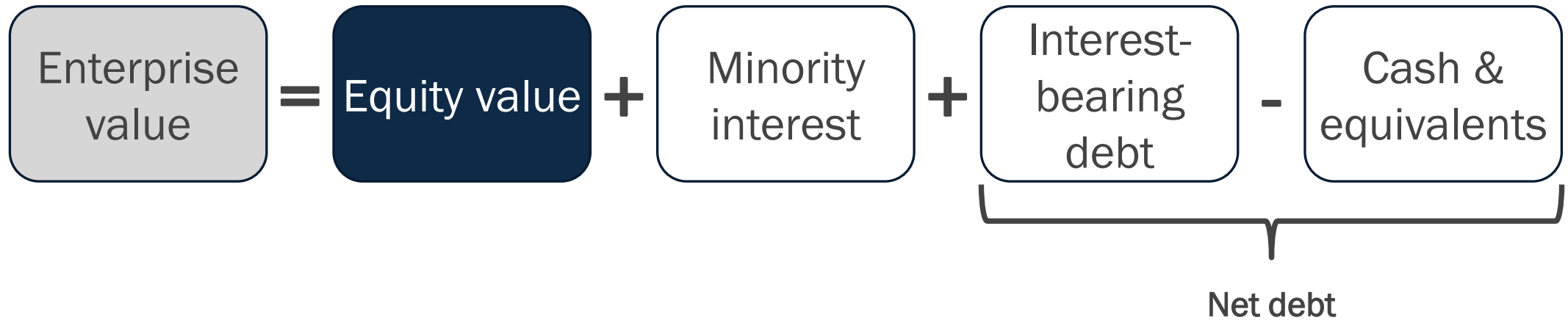
M&A

Acquiring capital

Strategic decisions

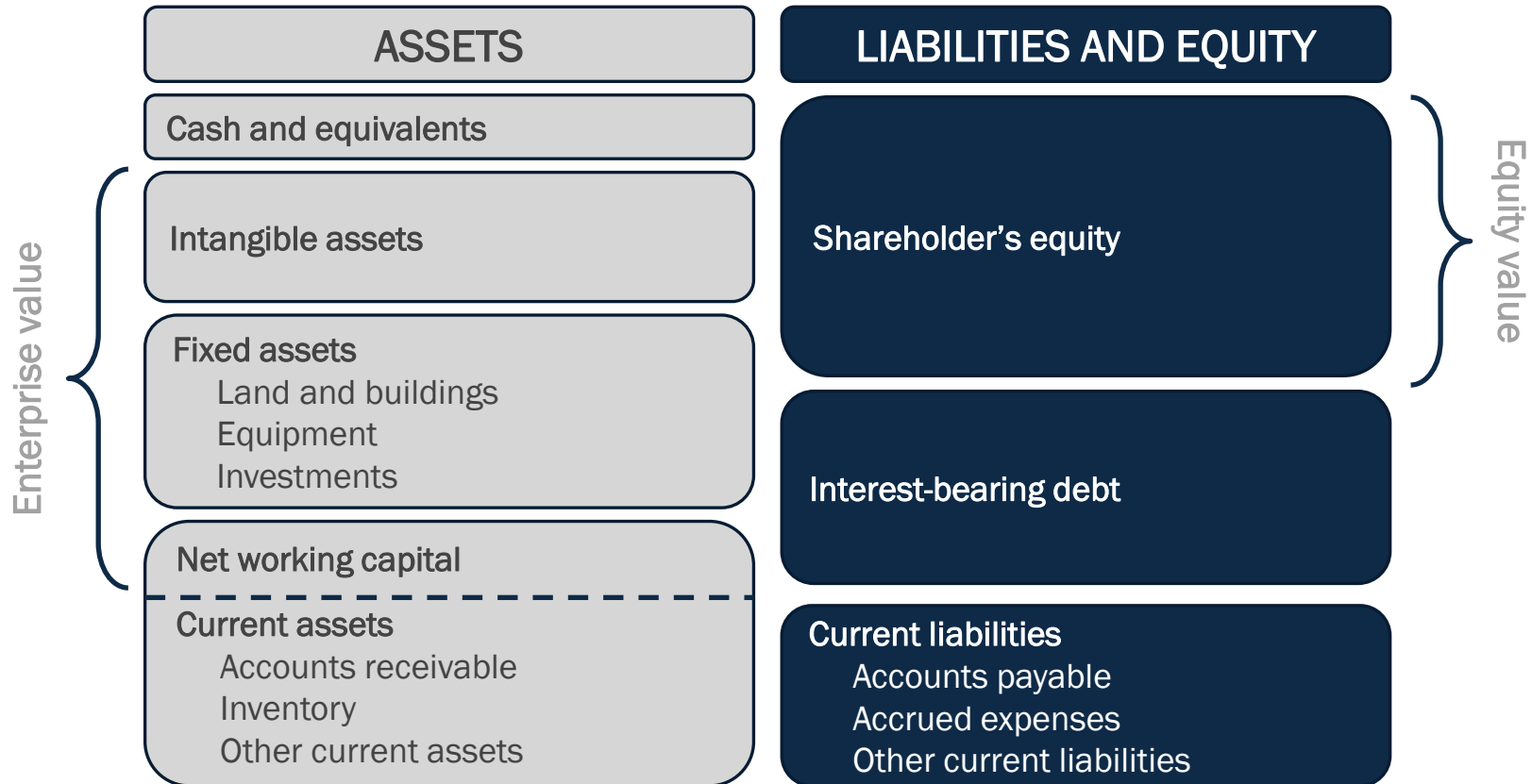Bidding

Taxation

Accounting

Conflict resolution

Enterprise value (EV) and Equity value

Enterprise value = Equity value + Minority interest + Interest-bearing debt - Cash & equivalents

Net debt (Interest-bearing debt - Cash & equivalents)

Enterprise value is a measure of the value of a company for all investors

Equity value is a measure of the value of a company's share capital

Enterprise value and equity value

ASSETS	LIABILITIES AND EQUITY
Cash and equivalents	
Intangible assets	Shareholder's equity

Fixed assets
  Land and buildings
  Equipment
  Investments	

Net working capital	Interest-bearing debt

Current assets
  Accounts receivable
  Inventory
  Other current assets
	Current liabilities
	  Accounts payable
	  Accrued expenses
	  Other current liabilities

Enterprise value

Equity value

Note: The above balance sheet reflects the fair market value of assets, liabilities and equity

Valuation methodologies

Market based method

- Estimating the value of a company based on the market valuation of comparable companies relative to a specific performance metric
- The market valuation of comparable companies can be determined from:
  1. Trading multiples of similar publicly traded companies
  2. Valuation of similar companies in precedent M&A transactions
- A variety of financial and non-financial multiples can be utilized

Cash flow based method

- Estimating the value of a company based on its forecasted future cash flows
- The discounted cash flow method analyzes the following three aspects:
  1. How much free cash flow is expected?
  2. When are the free cash flows expected to be received?
  3. How certain are the expected free cash flows?

Asset based method

- Estimating the value of a company based on the value of its assets and subtracting its liabilities
- There are two main ways to estimate the market value of a company's assets:
  1. Replacement value, i.e. the cost to replace a company's assets
  2. Liquidation value, i.e. the expected value of assets if they were liquidated

- The two most common corporate valuation methods are the market based and cash flow methods. Asset based methods can also be utilized and relevant depending on the premise of the company being valued (e.g. in bankruptcy scenarios or holding companies)
- There are other less common methods, including e.g. LBO based methods (if target IRR is known), regression methods (typically regression methods are made in conjunction with the market based method) and options based methods (where the equity of a company is valued in a similar way as a stock option)
- A sum of parts valuation can also be conducted in cases where the company is comprised of significantly differing cash generating units

Market based method

Market based method

- The market based method estimates the value of a company based on the market valuation of comparable companies relative to a specific performance metric
- The market based method can also be referred to as multiples analysis, comparables analysis or peer group analysis
- When analyzing the suitability of comparable companies, operational factors (industry, products, value drivers), geographic factors (country, regulatory / economic environment) and size (sales, EV, etc.) should be considered
- The market valuation of comparable companies can be determined from:
    - Trading multiples of similar publicly traded companies
    - Transaction multiples of similar companies in precedent M&A transactions
- A variety of financial and non-financial multiples can be utilized. Typical multiples used include:
    - EV / Sales
    - EV / EBITDA
    - EV / EBIT
    - P / E (Price per share to earnings per share)
    - P / B (Price per share to book value per share)
    - EV / Industry specific metrices (e.g. telecom towers, unique site visitors, etc.)
- The numerator and the denominator need to correspond with one another regarding financial structure. If an enterprise value multiple is being utilized, the denominator needs to be a metric that is irrespective of capital structure (Sales, EBITDA, EBIT, Capital employed, etc.). If an equity value multiple is being utilized, the denominator needs to be a metric that represents earnings, book value or cash flows to equity shareholders only
- Differences in e.g. size or whether one is acquiring a controlling stake may result in the need to apply a size or control premium to the analysis

Trading multiples approach

Trading multiples analysis (2021 multiples)

Comparable company	Country	Market cap (€m)	Net debt (€m)	Enterprise value (€m)	EV / Sales	EV / EBITDA	EV / EBIT
Listed telecom company 1	Finland	8 000	2 000	10 000	2.0 x	5.0 x	5.6 x
Listed telecom company 2	Finland	4 000	1 000	5 000	2.5 x	6.0 x	7.2 x
Listed telecom company 3	Germany	80 000	40 000	120 000	2.2 x	6.5 x	6.8 x
Listed telecom company 4	Germany	20 000	3 000	23 000	2.4 x	5.5 x	8.1 x
Listed telecom company 5	Switzerland	10 000	1 000	11 000	2.0 x	7.0 x	7.8 x
Listed telecom company 6	United Kingdom	30 000	10 000	40 000	1.5 x	5.0 x	6.5 x
Listed telecom company 7	Sweden	5 000	2 000	7 000	2.5 x	6.0 x	7.4 x
Lower quartile					2.0 x	5.3 x	6.7 x
Median					2.2 x	6.0 x	7.2 x
Mean					2.2 x	5.9 x	7.1 x
Upper quartile					2.5 x	6.3 x	7.6 x
Target company financials (€m)					100.0	40.0	35.0
Enterprise value (€m)							
Lower quartile					200.0	210.0	232.8
Median					220.0	240.0	252.0
Mean					215.7	234.3	247.0
Upper quartile					245.0	250.0	266.0
Net debt (€m)					15		
Equity value (€m)							
Lower quartile					185.0	195.0	217.8
Median					205.0	225.0	237.0
Mean					200.7	219.3	232.0
Upper quartile					230.0	235.0	251.0

Transaction multiples approach

Transaction multiples analysis									
Date	Target	Description of target	Country	Acquiror	% acquired	Enterprise value (€m)	EV / Sales	EV / EBITDA	EV / EBIT
01/2022	Telecom company 1	Telecom operations	Finland	Telecom acquiror 1	100 %	100	2.1 x	5.2 x	6.1 x
11/2021	Telecom company 2	Telecom operations	Finland	Telecom acquiror 2	100 %	200	2.5 x	n.a.	n.a.
08/2021	Telecom company 3	Telecom operations	Estonia	Telecom acquiror 3	51 %	600	2.2 x	6.8 x	6.8 x
07/2021	Telecom company 4	Telecom operations	Finland	Telecom acquiror 4	40 %	550	2.6 x	5.5 x	7.5 x
01/2021	Telecom company 5	Telecom operations	Norway	Telecom acquiror 5	33 %	150	2.0 x	n.a.	n.a.
10/2020	Telecom company 6	Telecom operations	Sweden	Telecom acquiror 6	100 %	75	1.8 x	5.0 x	n.a.
05/2020	Telecom company 7	Telecom operations	Sweden	Telecom acquiror 7	100 %	65	2.5 x	6.5 x	7.4 x
	Lower quartile						2.1 x	5.2 x	6.6 x
	Median						2.2 x	5.5 x	7.1 x
	Mean						2.2 x	5.8 x	7.0 x
	Upper quartile						2.5 x	6.5 x	7.4 x
	Target company financials (€m)						100.0	40.0	35.0
	Enterprise value (€m)								
	Lower quartile						205.0	208.0	231.9
	Median						220.0	220.0	248.5
	Mean						224.3	232.0	243.3
	Upper quartile						250.0	260.0	259.9
	Net debt (€m)						15		
	Equity value (€m)								
	Lower quartile						190.0	193.0	216.9
	Median						205.0	205.0	233.5
	Mean						209.3	217.0	228.3
	Upper quartile						235.0	245.0	244.9

Cash flow based method

Discounted cash flow method

Free cash flow calculation

	EBIT
-	Taxes
+	D&A
- (+)	Change in NWC
-	Capital expenditure (capex)
=	Free cash flow (FCF)

- The discounted cash flow method estimates the value of a company based on its forecasted future cash flows
- The free cash flow (FCF) is calculated for each forecast year
- A terminal value is calculated that represents the residual value of the target at a future point in time expecting a stable growth rate to eternity
  - The terminal value can be calculated by using the gordon growth model or an industry multiple
- The free cash flows for each year are then discounted by the discounting factor for the respective forecast year. The terminal value is discounted with the discounting factor of the last forecast year
- The sum of the discounted free cash flows in the traditional DCF model represents the target's present value. As free cash flows have been calculated before financing costs, the present value represents the the enterprise value of the target (that is, the value of the target for all investors)
- Subtracting the net debt (and PV of minority interest) from the EV provides the equity value of the target

Discounting factor calculation:

$$D_Y = \frac{1}{(1 + WACC)^Y}$$

Where: D_Y = discounting factor for year Y, Y = year of cash flow

Gordon growth model calculation:

$$TV_Y = \frac{FCF_{Y+1}}{(WACC - g)}$$

Where: TV = terminal value, Y = last forecast year, g = terminal growth rate

Discounted cash flow model

Discounted cash flow (DCF) model	2021	2022	2023	2024	2025	Terminal
Revenues	**100.0**	**103.0**	**106.1**	**109.3**	**112.6**	**114.8**
% growth		3 %	3 %	3 %	3 %	2 %
Operating expenses	**60.0**	**61.8**	**63.7**	**65.6**	**67.5**	**68.9**
% of revenue	60 %	60 %	60 %	60 %	60 %	60 %
EBITDA	**40.0**	**41.2**	**42.4**	**43.7**	**45.0**	**45.9**
EBITDA margin	40 %	40 %	40 %	40 %	40 %	40 %
D&A	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
% of revenue	5 %	5 %	5 %	5 %	4 %	4 %
EBIT	**35.0**	**36.2**	**37.4**	**38.7**	**40.0**	**40.9**
EBIT margin	35 %	35 %	35 %	35 %	36 %	36 %
Taxes	**7.0**	**7.2**	**7.5**	**7.7**	**8.0**	**8.2**
% of EBIT	20 %	20 %	20 %	20 %	20 %	20 %
EBIT		36.2	37.4	38.7	40.0	40.9
- Taxes		-7.2	-7.5	-7.7	-8.0	-8.2
+ D&A		5.0	5.0	5.0	5.0	5.0
- Capex		-5.0	-5.0	-5.0	-5.0	-5.1
-/+ Change in NWC		-10.3	-10.6	-10.9	-11.3	-11.5
Free cash flow		**18.7**	**19.3**	**20.0**	**20.8**	**21.2**
Terminal year growth						2.0 %
WACC						10.0 %
Terminal value (gordon growth model)						**264.5**
Discounting period (mid-year assumption)		0.5	1.5	2.5	3.5	4.0
Discounting factor		0.95	0.87	0.79	0.72	0.68
Present value of FCF		**17.8**	**16.8**	**15.8**	**14.9**	**180.6**

Enterprise value	**245.8**
- Interest-bearing debt	-25.0
+ Cash and equivalents	10.0
Equity value	**230.8**

- The valuation date in this example is the 1st of January 2021
- The example utilizes the mid-year assumption which assumes that the free cash flows are distributed evenly throughout the financial year

1. How much free cash flow is expected?

2. How certain are the expected free cash flows?

3. When are the free cash flows expected to be received?

Sensitivity analysis

Sensitivity analysis - Enterprise value (€m)					
			WACC		
		9.0 %	9.5 %	10.0 %	10.5 %	11.0 %
Terminal year growth %	1.0 %	253.7	238.9	225.8	214.0	203.5
	1.5 %	266.2	249.7	235.2	222.3	210.8
	2.0 %	280.5	262.0	**245.8**	231.6	218.9
	2.5 %	297.0	276.0	257.9	242.0	228.1
	3.0 %	316.2	292.2	271.6	253.9	238.3

Sensitivity analysis - Equity value (€m)					
			WACC		
		9.0 %	9.5 %	10.0 %	10.5 %	11.0 %
Terminal year growth %	1.0 %	238.7	223.9	210.8	199.0	188.5
	1.5 %	251.2	234.7	220.2	207.3	195.8
	2.0 %	265.5	247.0	**230.8**	216.6	203.9
	2.5 %	282.0	261.0	242.9	227.0	213.1
	3.0 %	301.2	277.2	256.6	238.9	223.3

The cost of capital equation examples – WACC

$$\text{WACC} = \frac{D}{EV} \times (1 - t) \times r_d + (1 - \frac{D}{EV}) \times r_e$$

$$r_d = r_f + spread + a$$

$$r_e = r_f + B_e \times r_m + a$$

- $\frac{D}{EV}$ = debt to enterprise value. This is usually the average leverage ratio in the given industy
- t = tax rate. This is the corporate tax rate of the country in question
- r_d = required return on debt
- r_e = required return on equity
- r_f = risk free rate. Usually the long term (e.g. 30-year) government bond yield in a AAA-rate country is applied
- $spread$ = the credit spread for the given industry
- B_e = levered beta (or equity beta)
- r_m = market risk premium
- a = additional risk factor. In case, the target country is not AAA-rated, a country risk premium and an inflation differential (if currencies are different) should typically be considered. Other risk factors that should be considered include size premiums and company specific risks
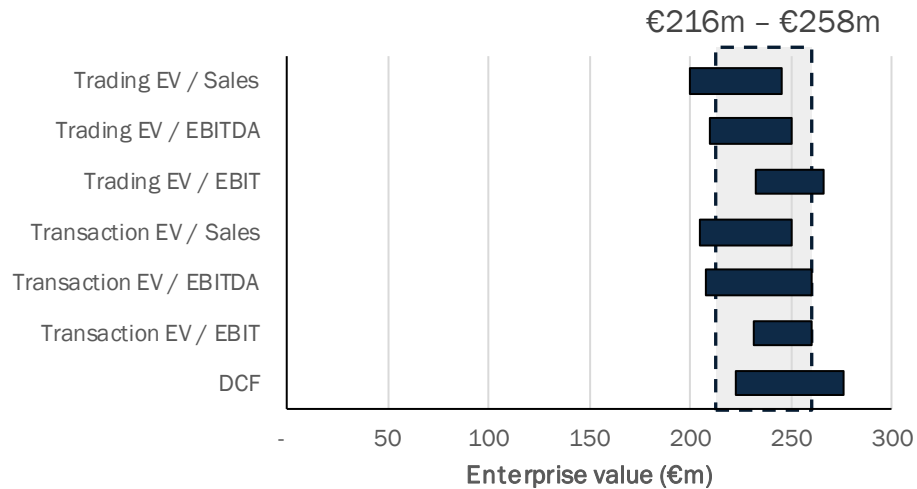
Asset based method

Asset based method

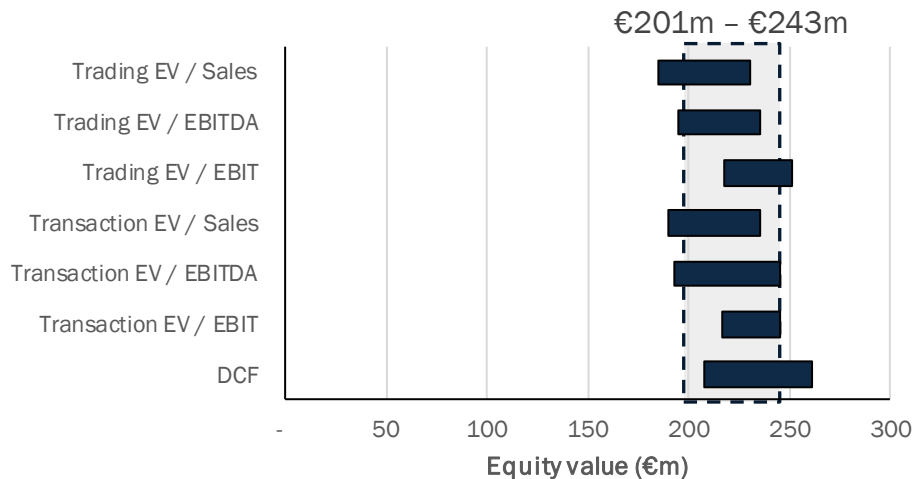| Asset-based valuation (€m)			
	Book value	Adjustment	Market value
Intangible fixed assets	40.0	(40.0)	-
Tangible fixed assets			
Property, plant and equipment	40.0	10.0	50.0
Land	20.0	-	20.0
Fixed assets	**100.0**		**70.0**
Inventories	15.0	(7.5)	7.5
Accounts receivable	10.0	-	10.0
Other current assets	10.0	-	10.0
Cash and equivalents	5.0	-	5.0
Current assets	**40.0**		**32.5**
Assets	**140.0**		**102.5**
Short-term liabilities	(20.0)		(20.0)
Long-term liabilities	(20.0)		(20.0)
Equity	**100.0**		**62.5**

- The asset based method values a company based on the value of its assets and subtracting its liabilities
- In the asset based method, assets of the company are adjusted to reflect their market value and then liabilities are subtracted in order to determine the equity value
- There are two main ways to estimate the market value of a company's assets:
  1. Replacement value, i.e. the cost to replace a company's assets
  2. Liquidation value, i.e. the expected market value of assets if they were liquidated

Summary

Football field analysis

€216m – €258m

Enterprise value (€m)

Trading EV / Sales	
Trading EV / EBITDA	
Trading EV / EBIT	
Transaction EV / Sales	
Transaction EV / EBITDA	
Transaction EV / EBIT	
DCF	

€201m – €243m

Equity value (€m)

Trading EV / Sales	
Trading EV / EBITDA	
Trading EV / EBIT	
Transaction EV / Sales	
Transaction EV / EBITDA	
Transaction EV / EBIT	
DCF	

- A football field analysis is a typical way to present the findings of a valuation analysis
- In this example case the valuation EV is estimated at €216m – €258m
- By deducting the net debt of €15m we receive the equity value range of €201m – €243m

Valuation methodology summary

Market based method

+ Fast valuation method
+ Considers also intangible value
+ Availability of market information
+ Comparable companies have become less challenging to identify
- Sensitive to market price volatility
- Multiples might not consider the underlying cash flows of companies
- No consideration for company specific risks

- Good when relevant comparable companies are available
- Can be implemented flexibly as valuation can be tailored using different performance metrics

Cash flow based method

+ Analyzing cash flows is the most theoretically sound approach
+ Clear forecast assumptions
+ Considers also intangible value in companies
- Forecasts can be difficult to generate reliably
- Able to be manipulated due to numerous inputs and assumptions
- Forecasts can be biased

- Good in cases where cash flows are relatively predictable
- Method can be utilized in most valuations

Asset based method

+ Rather straightforward and clear to communicate approach
- Estimating the market value of assets especially intangible assets can be difficult and may require external experts
- Typically there is no consideration for intangible assets
- Does not consider the going concern premise

- Good for liquidation situations, holding companies and non-profit organizations

Factors beyond valuation that can influence the pricing of a transaction

Factors that may increase price

Competitive buyer landscape	Structured M&A process	Confidentiality	Synergy expectations

Factors that may decrease price

Unstructured M&A process	Few interested buyers	Weak financial performance

Interview and valuation resources:

- Breaking into Wall Street (Banking interview preparations)
- Casecoach.com (Management Consulting application & interview preparations)
- Damodaran Online (Valuation related data)
- Yahoo Finance (Company info)
- Comparables.ai (Company and peer group info)