HD(R) Regnskab og Økonomistyring Copenhagen Business School Final Project Spring 2020





# FUNDAMENTAL AND STRATEGIC ANALYSIS OF LANGUAGEWIRE HOLDING A/S

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## 1. INTRODUCTION

The world has become increasingly globalized during the past decades. Therefore, the need for successful cross-cultural communication has tremendously increased. Corporates have realized the necessity of communicating with their various audiences in their own languages and reducing their reliance merely on the use of English as sole medium of communication. Accordingly, language services, including translation and localization, industry has thrived. The language industry has been growing rapidly to deal with increased volumes since 2019. There is high growth potential from the leading translation buyers in software, pharmaceutical, intellectual property, and manufacturing sectors who add languages, start localizing videos for marketing and training.

They experiment with machine translation to deal with volumes of user content far too large for professional translators to cope with. In interpreting, Western governments spend more on accessibility in healthcare and in the justice systems, and the effort to optimize the spend leads to large interpreting contracts changing hands. In media localization, the explosion of online streaming production leads to unprecedented challenges of scaling and opens the space to new solution providers.

Vendor companies keep growing steadily at double-digit rates, racing to build sales, win new enterprise clients, and capture niches with fast growth, such as video and data services. They acquire other companies with quality portfolios confident in making a long-term profit on these deals or being able to resell in three to five years. Smaller companies keep growing, wary of price pressures and the threat of technology. Technology startups appear and get funding every year, and artificial intelligence and neural computing have become an inevitable part of nearly every business conversation, but they have not disrupted the industry in a meaningful way — yet.

#### 1.1 KEY FACTS OF LANGUAGE SERVICES INDUSTRY:

#### **Global Presence**

There are **1,650**+ language services companies across the globe. **1,073** of them are based in Europe, the US, and Canada.

#### Market Size

The estimated market size of language services industry is <u>USD 53.5 billion</u>. The industry offers translation, interpreting, media localization, and respective technology services.

#### **Employment**

This industry employs more than **398,000+ professionals** including 78,000 language service provider employees across the US, Europe, and Canada. It is estimated that around 250,000 full-time professional translators, interpreters, and subtitlers are serving this industry.

#### **Use of Technology**

There are approximately **531** commercially available distinct language services technology brands and this number is growing rapidly.<sup>1</sup>

LanguageWire is one of the leading Language Service Provider in Denmark and EU. Since 2000, LanguageWire has helped brands create global content with innovative technology, streamlined workflows, and a worldwide network of language experts. With profitable growth since its inception, LanguageWire has a noticeable niche position in the B2B domain, powered by a strong digital operating model and a well-invested technology backbone. Today, LanguageWire serves more than 3,000 customers through its 16 offices in 13 countries and enjoys a unique position as a technology market leader.

<sup>&</sup>lt;sup>1</sup> <<u>https://www.nimdzi.com/research/</u>>

## **1.2 GROUP STRUCTURE**

Group structure of LanguageWire<sup>2</sup> is as follows:



<sup>&</sup>lt;sup>2</sup> Languagewire Holding A/S (Annual report 2019) . For details, see

<sup>&</sup>lt;<u>https://datacvr.virk.dk/data/visenhed?enhedstype=virksomhed&id=38608924&soeg=languagewire%20holding</u> <u>&type=undefined&language=da</u>>

## 2. PROBLEM DEFINITION

With this project, I will describe LanguageWire business and their way of doing business. The purpose of this is to find the theoretical share price of the company. Based on a strategic analysis and an accounting analysis that together form the basis for a future budgeting, it is desired to value LanguageWire and answer the following main questions:

# "What should be the theoretical fair value of LanguageWire Group (LW) if private equity fund (CataCap) wishes to divest in it as at 31.12.2019?"

The following sub-questions are answered through the analysis:

- 1. How can LanguageWire describe the current strategic position in the market and the language translation industry?
- 2. How can LanguageWire accounting performance be described?
- 3. How do the two above points affect budgeting?
- 4. What is the current value of LanguageWire if it is determined by Earning Multiples?

## 2.1 LIMITATIONS

This assignment is solely based on publicly available market and financial information of LW. The financial statements of past 5 years have been used to carry out the financial analysis of LW Group. Mostly companies operating in language translation business are either private companies or companies owned by private equity funds. Therefore, it is impracticable to find financial market data, including information of Beta and Market risk. Accordingly, I have used the statistical theoretical methods for calculating beta equity and beta debt in Discounted Cash Flow (DCF) analysis and Weighted Average Cost of Capital (WACC) calculations with reasonable judgments and included in the financial analysis of Language Wire Group.

## 2.2 MODEL AND METHODS

The project is structured as follows:



## 2.2.1 Company Description

This section explains what it is overall for a company we are dealing with. What has been the historical development and what does the future look like? Which markets does the company operate in, as well as how is the immediate competition. In addition, we also look at owner / shareholder relations as well as the Executive Board and the Board of Directors. This helps to establish facts, for use in the analysis section.

## 2.2.2 Financial Statement Analysis

The accounting analysis is based on the past five financial statements. This is considered to be a relevant period. Comments are made on the policies used. In order to separate the company's operating activities and financial activities, the accounts are reformulated. This is done primarily so that in connection with the valuation, one can focus on the part of the company's profits that comes from operations -i.e. the primary activity. The income statement, the balance sheet and the equity statement are reformulated.

Another part of the accounting analysis is the key figures analysis. I start from the DuPont pyramid. The analysis of these key figures intends to describe LanguageWire's historical accounting performance, as well as explanations for this performance.

## 2.2.3 Strategic Analysis

The following models will be included in the strategic analysis:

- PESTEL Model
- Porters five forces

Finally, the analysis is compiled using a SWOT analysis.

## 2.2.4 Budgeting

The budgeting is made on the basis of the accounting analysis and the strategical analysis. Of course, the company's own expectations for the future are also considered.

## 2.2.5 Valuation

For the valuation itself, Earning Based multiples has been used.

## 3. STRATEGIC ANALYSIS

The strategic analysis describes the environment within and around the companies that cannot be read directly in the financial Statements. In other words, they are not financial value drivers. The first part of the analysis is a PESTEL analysis - an analysis that describes the world around LanguageWire. Porter's Five Forces is used to describe companies and their competitive situation. To conclude this section, it all comes together in a SWOT analysis.

#### 3.1 **PESTEL ANALYSES**

The PESTEL model is used to analyse external business environment of a business organization. PESTEL stands for:

- Political factors
- Economic factors
- Sociocultural factors
- Technological factors
- Environmental factors
- Legal factors

#### 3.1.1 **Political Factors**

The political factors can significantly impact business operations of LanguageWire due to its multijurisdictional presence. LanguageWire operates with 16 offices in the U.S, Belgium, France, UK, Germany, Denmark, Sweden, Switzerland, China, Norway, Spain, Ukraine and Poland. Currently, LanguageWire has 320 employees in total. Of these 223 employees (62%) are located outside of Denmark.<sup>3</sup>

Changing political circumstances and legislation can have both favourable and adverse implications for the business of LanguageWire. Recent phenomenon of Brexit (UK's decision to leave the European Union) will have both political and business implications for the region. The latest trend of localisation ensuing Brexit will also impact the ways of doing business in the region. It is expected that Brexit will lead to a temporary spike in document translation due to increased legislation ensuing Brexit.

Increased legislation will affect trade, finance, reviews of work contracts, and accordingly, the demand for legal translation will rise. Furthermore, Brexit will also increase an opportunity for

<sup>&</sup>lt;sup>3</sup> Annual report 2019

translation and localisation in the manufacturing and media industries in Europe due to their plans for their operations in mainland Europe.

## **3.1.2 Economic Factors**

Currently, LanguageWire is exposed to following two key economic risks:

- Corona Crises (COVID-19)
- Currency Risk

LanguageWire operates predominantly in European region besides USA. It is important to note that German-speaking (ie: DACH) countries (Germany, Austria, Switzerland) are home to 14 language service providers (LSPs) in the Nimdzi 100. This is followed by Nordics (Sweden, Norway, Finland), home to 12 LSPs, and French-speaking (France, Luxembourg, Belgium), home to 10 LSPs. Following diagrams represent the market size and share of the language industry.



Figure 1 Source: Market Size-2018 Nimdzi 100 Report



Figure 2 Source: Market Analysis-2018 Nimdzi 100 Report

Currently, almost all the countries in which LW operates have been severely affected by the COVID-19 pandemic. Although the language industry has so far been impervious to crises, it is likely that the revenues of LanguageWire would be affected by the COVID-19 pandemic.

The operational presence of LanguageWire in several countries affected by COVID-19 pandemic exposes it to exchange rate risk. Since the local currency of these countries (e.g., Euro, GBP, USD) is reasonably tied to Danish Krone (DKK), currency risk is considered to be relatively small. Furthermore, LW has entered into a hedging arrangement on DKK against USD.

## **3.1.3** Sociocultural Factors

- Extraordinary Consumer
- Social Media
- Customer Experience

In today's era, the consumers are more empowered and knowledgeable than ever before. Expectations for excellent customer service, sales knowledge, and technical support will continue to soar. Customers want to be treated as a "segment of one," with products, offers, and services delivered on their terms and preferred communications channels.

Today's modern language services provider needs to understand social media and know what it wants to achieve from its social media presence. Which channels will it choose to be present on and why? The social media sphere moves a lightning speed. Another significant challenge is to stay ahead of any potentially damaging media event that might jeopardize brand equity.

Companies worldwide are putting significant effort and technology investments into improving the customer experience in an Omnichannel environment. However many organizations are challenged to find the right solutions and partners - both from a technology and customer care servicing perspective.

## **3.1.4** Technological Factors

In recent years, LanguageWire has invested heavily in updating and developing their IT system i.e. machine learning. As a result, they are now very strong in relation to competitors. There is little doubt that growth in the Language Services industry is being stimulated by new technology.

As a technology company, IT is the core of all our offerings. High levels of IT security are paramount, and it continuously ensure that policies and practices provide this. In 2017, the ISO 27001 (Information Security Management System) standard was rolled out, and it is aiming to become certified in Q1 2020.

The best example is LanguageLine's multimillion (\$37M) dollar investment in its proprietary cloud-based technical platform, Olympus. This investment strategy will support clients' need for new language access solutions today and far into the future.

## 3.1.5 Environmental Factors

LanguageWire (LW) is a community where communication is open, informal and friendly. The

fact that it respects each other personally and professionally promotes collaboration and a positive social environment. LW wants people to enjoy coming to work, and its regular employee engagement surveys shows that they enjoy working together and are proud to work at LW.

LW supports initiatives that promote a social and enjoyable work environment by allocating money to its employee association, PeopleWire. Additionally, it provides flexible working conditions and participates in a range of physical activities, such as running, yoga and cycling events. In its offices, it ensures that fruit is available, and employees participate in communal breakfasts on Fridays.

A workforce made up of various cultures, genders, ages and languages provides valuable perspectives. This focus on diversity is essential for its creativity, agility, competitiveness and, as a result, success. LW achieves this by fostering a supportive environment in which all individuals can realise their potential. Specifically, it tracks gender distribution within departments and at different levels of our organisation.

## 3.1.6 Legal Factors

Currently, there is little to no regulation in this industry. Any startup company can theoretically start a language services business and begin providing interpretation and translation.

## **3.2 PORTERS FIVE FORCES**

To describe the market in which LanguageWire operates and to assess the threat posed by competitors, the Porters Five Forces model is used. Michael Porter has developed the Five Forces model to elucidate 5 elements that influence the structure and strength of a given industry. The model is based on the fact that there are five basic forces that influence the competitive environment of a company.



The model looks at the following five forces:

Figure 3: Porters Five Forces<sup>4</sup>

## **3.2.1** Competitive Rivalry

There are many translation companies in the Danish market. According to data search from cvr.dk, during last five years 33 Medium and Large size language translation companies were incorporated in Denmark.



Figure 4: cvr.dk- Numbers of Translation Companies from 2015-2020<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> Source: <https://www.marketforecast.com/methods/porter-s-five-forces>

<sup>&</sup>lt;sup>5</sup> Source:

<sup>&</sup>lt;<u>https://datacvr.virk.dk/data/visninger?soeg=&openFilter=true&kommune=null&region=null&antal\_ansatte=&virksomhedsstatus=normal%2Caktiv&virksomhedsform=null&virksomhedsmarkering=null&personrolle=null&</u>

The 3 largest LSPs by market share are:

- 1. EasyTranslate A/S
- 2. Adhoc Translations A/S
- 3. Transperfect Denmark ApS

These three companies make up most of the market share in Denmark. Whereas LW is place in top 30 companies list internationally in terms of fast growth i.e.

## 3.2.2 Suppliers

LanguageWire does not disclose in their accounts who they use as their suppliers. The 2019/12 annual report states: "The core resource for the Company is the network of freelance translators and other language experts. The market for language experts is huge, and the sourcing risk is deemed low; however, it is important to nurture the community to ensure a sustainable recruitment base for future growth." This indicates that LanguageWire is very aware of the requirements and expectations of suppliers.

## 3.2.3 Customer

LanguageWire customers are from small and medium enterprise to big multinational companies. Therefore it has some dependence to them and its customers has buying power to negotiate lower price.

## 3.2.4 New Entrants

The number of language service providers has been sharply increasing until 5 years ago i.e. 766. There were a lot of local small LSPs that popped up in many places in Denmark in the last many years. As Language translation is not highly regulated so it did not require much to start

oprettet=2015-01-01.2019-12-

<sup>&</sup>lt;u>31&ophoert=null&branche=74.30.00&type=Alle&sortering=default&language=da</u>

this business. However their capacity was not huge for the same reason.

#### **3.2.5** Substitute Products

The definition of substitute products is other products that can meet the same needs of the customer / end user. In this industry the alternatives are many but it all depends on the level of service. Unlike the competition, LW offers industry-leading, full-service solutions as a result of its significant investments in people, processes and technology.

## 3.3 SWOT ANALYSIS – PRELIMINARY

As a sub-conclusion to this section, the SWOT analysis is used. This analysis looks at the company's internal and external conditions.

SWOT stands for:

-	Strengths Weaknesses	(Internal)
-	Opportunities Threats	(External)

The following points will be discussed:

Strengths	Weakness
- Increases in efficiency	- Sharing of data
Opportunities	Threats
<ul> <li>Getting intelligence from the data</li> <li>Working in the cloud</li> <li>Convergence of Technologies</li> </ul>	- Changes in jobs

#### 3.3.1 Strengths

- For two decades LanguageWire has been a well-known brand in Denmark. LW manages to hold on to this brand.
- LanguageWire has a wide range of translation and interpretation can satisfy a broad target group i.e. pharmaceuticals, engineering e.t.c.
- LW offers high quality service and the product in order to receives high marks for performance, functionality, and reliability at every stage of the product life cycle.

#### 3.3.2 Weaknesses

- Unlike other leading LSPs, LW is still at a process of achieving advanced IT process with regards to translations. It has planned to be ISO 27001 certified in 2020.
- It seems LW is not using Machine learning or encrypted processes so there is still a risk of sharing data among various Language experts thus risking the privacy.

## 3.3.3 Opportunities

• Changed demand - due to lifestyle changes, demand is also changing.

- Getting intelligence from the data like translation memory and offering hybrid translation to customers i.e. blend of machine learning and manual thus offer cheaper translation than its competitors.
- Great potential in the international market LanguageWire is already exploring various international markets, but there is still great potential.

#### 3.3.4 Threats

- The most important business-related risk for the Company and the Group is to maintain the ability to consistently and continuously deliver good service and produce high-quality content at competitive prices in the served markets. Partnerships are integral in accessing our customers and markets, and we strive to nurture these relations.
- Introduction of machine translation may spread of job loss among language experts and thus influencing quality of translations.

## 4. FUNDAMENTAL ANALYSIS

The purpose of this section is to provide an overview of how LanguageWire has performed over the last 5 financial years: 2015/12, 2016/12, 2017/12, 2018/12 and 2019/12. This, together with the other sub-sections, should form the basis for the later budgeting and valuation.

## 4.1 **REFORMULATION**

The purpose of the reform is to prepare the income statement, balance sheet and equity statement for analysis. This is appropriate as the company's operating and financing activities are separated from each other. The division aims to shed light on the sources of value creation in the company (see Appendix 9.2).

## 4.1.1 Reformulation of Income Statement

Reformulation of the income statement divides the items into operating and financing items. The reformulated income statement shows the total income instead of profit for the year in the original income statement.

## $Totalindkomst = netto overskud \mp amden totalindkomst$

In addition, the concept of Dirty Surplus appears. Dirty surplus is defined as:

Dirty Surplus is revenue and expenses, as well as gains and losses that are not posted to the income statement i.e. the items are posted to the balance sheet/ statement of changes in equity. If in the statement of equity no profit components other than the net profit are recorded, then this is a clean surplus statement.

## 4.1.2 **Reformulation of Balance Sheet**

The reformulated balance sheet divides the existing balance sheet into the following points:

Assets	Liabilities
Operational Assets	Provisions
Financial Assets	Operating Liabilities
	Financial Liabilities
	Common Shareholders' Equity (CSE)
	Share of Minority interest in CSE
Total Assets	Total Liabilities

Figure 5<sup>6</sup>

The whole exercise is about finding operating assets and financial assets and finding the corresponding sources of finance on the liabilities side. The breakdown in the above-mentioned items makes it possible to find out Net Financial Liabilities (NFF) and Net Operating Assets (NDA).

*NFF* = *Finansielle forpligtelser* - *finansielle aktiver* 

NDA = NFF - egenkapital - minoritets aktionærens andel af egenkapitalen

One of the assets on the asset side is the cash balance. In the original balance sheet, it covers both operating and financial liquidity. It is not stated in the annual reports what distribution this division should assume, so an estimate has been made. Operating activities are estimated to be equivalent to 2% of net sales.

<sup>&</sup>lt;sup>6</sup> Source: regnskabsanalyse og værdiansættelse en praktisk tilgang Olse Sørensen

(DKK in '000')

Description	2019/12	2018/12	2017/12	2016/12	2015/12
Cash and Cash equivalents at the	10.490	6.834,425	2.604,65	4.890	12.091
end of year					
Cash flow operations (2% of net	6.829	27.701	383	*	*
sales)					
Cash and cash equivalents	-3.661	20.866,575	-2.221,65	*	*
financing					

\*Sales data for the year ended 2016 & 2015 is not available.

#### 4.1.3 **Reformulation of Statement of Changes in Equity**

The Statement of Changes in Equity shows all transactions that relate to the company's equity in accordance with IFRS. By reformulating it, the aforementioned total income is obtained. However, the total income can be extracted directly from the Annual Report's section on Statement of Changes in Equity.

## 4.2 ACCOUNTING POLICIES

LanguageWire financial statements (consolidated financial statements and financial statements) are prepared in accordance with International Financial Reporting Standards, as approved by the EU and Danish disclosure requirements for listed companies (accounting class). The accounts over the past five years have been presented in accordance with current standards which meets the IFRS / IAS standard, as well as the new IFRIC interpretation. In last 3 financial years, the independent auditor was a state-authorized audit firm, Deloitte and preceding last 3 years it was PwC. In conclusion of the audit, Deloitte wrote in the 2019/12 report:

In our opinion, the consolidated financial statements and the parent financial statements give a true and fair view of the Group's and the Parent's financial position at 31.12.2019, and of the results of their operations and the consolidated cash flows for the financial year 01.01.2019 - 31.12.2019 in accordance with the Danish Financial Statements Act.

The same is true for the previous Annual Reports.

## 4.3 RATIO ANALYSIS

The analysis of key figures is based on the extended DuPont model. All calculations are made in Microsoft Excel and can be seen in Appendix 10.



Figure 6 The Extended DuPont Model<sup>7</sup>

In this analysis we decompose ROE as shown in Figure 6 (all the numbers used in ROE decomposition are calculated from reformulated income statement and the reformulated balance sheet).

## 4.3.1 Net Asset Turnover Rate – AOH

Net Asset Turnover Rate (AOH) shows how good a company is at utilizing its net operating assets to generate revenues.

<sup>&</sup>lt;sup>7</sup> Source: Extracted from Regnskabsanalyse og værdiansættelse - en praktisk tilgang - Ole Sørensen - 3. udgave

(DKK in '000')

Classification	31-12-2019	31-12-2018	31-12-2017	31-12-2016	31-12-2015
OA	80.350,00	80.568,00	37.791,00	25.095,00	25.210,00
OA	6.668,00	4.596,00	3.425,00	2.535,00	3.221,00
OA	4.553,00	7.036,00	-	-	-
OA	4.257,00	268,00	-	4.285,00	3.307,00
OA	2.862,00	5.314,00	5.610,00	3.993,00	1.808,00
OA	3.713,00	4.305,00	878,00	857,00	597,00
OA	196.820,00	208.324,00	96.650,00	-	-
OA	212.936,00	225.045,00	94.922,00	12.482,00	1.254,00
OA	2.090,00	1.126,00	364,00	-	-
TOTAL OA	514.249,00	536.582,00	239.640,00	49.247,00	35.397,00
OL	39.130,00	39.618,00	6.457,00	5.791,00	3.349,00
OL	42.527,00	50.671,00	19.983,00	19.966,00	17.245,00
OL	479,00	2.421,00	2.451,00	730,00	2.745,00
OL	55.491,00	59.432,00	25.125,00	2.613,00	319,00
TOTAL OL	137.627,00	152.142,00	54.016,00	29.100,00	23.658,00
NDA	376.622,00	384.440,00	185.624,00	20.147,00	11.739,00
Avg NDA	380.531,00	285.032,00	102.885,50	15.943,00	
Sales	419.600,00	273.377,00	104.186,00		
AOH	1,10	0,96	1,01	-	-
1/AOH	0,91	1,04	0,99	-	-

The calculation of NDA is as follows:

(DKK in '000')

Description	2019/12	2018/12	2017/12	2016/12	2015/12
Nettoomsætning	419.600,0	273.377,0	104.186,0	*	*
NDA	376.622,0	384.440,0	185.624,0	20.147,0	11.739,0
AOH (Gns. NDA)	1,10	0,96	1,01	*	*
1/AOH	0,91	1,04	0,99	*	*

\*Sales data for the year ended 2016, 2015 and 2014 is not available.

LanguageWire AOH has been static over this 3 year period. This can be explained by the fact that net sales and operating assets have both increased in years while NDA has increased over the same period. 1 / AOH shows how much NDA is needed to generate 1 kroner's revenue.

## 4.3.2 Operating Margin – OG

The operating margin (OG) shows the company's ability to generate profits. It is calculated as a ratio of revenue to operating costs.

	00	- 100			
Description	2019/12	2018/12	2017/12	2016/12	2015/12
OG	-3,01%	-4,97%	3,51%	*	*

0C -	Resultat	før	finansielle	poster	100

\*Sales data for the year ended 2016 & 2015 is not available.

LanguageWire OG has declined steadily since 2017/12. This is due to significant rise in operating costs as compared to increase in net sales in the last three years.

## 4.3.3 Return On Capital Employed – ROCE

The Return On Capital Employed (ROCE) shows how the company generates returns on the total capital employed.

## **ROCE** = Comprehensive income / Avg. Capital Employed

Avg. Capital Employed = (NOA - NFA)/2

(DKK in '000')

	31-12-2019	31-12-2018	31-12-2017	31-12-2016	31-12-2015
Net operating assets (NOA):	378.720,00	385.806,89	186.144,93	33.147,00	21.739,00
Net financial assets (obligations) (NFA/NFO)	-225.608,00	-210.186,89	-74.588,93	4.890,00	12.091,00
Common Shareholders' Equity (CSE)	153.112,00	175.620,00	111.556,00	38.037,00	33.830,00
Avg CSE	164.366,00	143.588,00	74.796,50	35.933,50	-
Comprehensive income	-25.954,00	-17.861,00	2.103,00	14.210,00	12.984,00
ROCE	-0,16	-0,12	0,03	0,40	-

During 2018 and 2019, the ability of Language Wire to create value from its operations has deteriorated resulting in decline in ROCE.

## 4.3.4 Financial Gearing – FGEAR

FGEAR is the relationship between Net Financial Liabilities (NFF) and equity. Its calculation formula is as follows:

Gns.NFF

$$FGEAR = Gns.EK$$

(DKK in '000')

	2019	2018	2017
Net financial assets (obligations) (NFA/NFO)	-225.608,00	-210.186,89	-74.588,93
Total shareholders' equity - EK	153.112,00	175.620,00	111.553,00
FGEAR	-1,47	-1,20	-0,67

FGEAR shows how much of the company is financed through borrowed capital against the equity. LanguageWire FGEAR has increased from year 2017 where they have assumed additional risk by increasing debt. In the year 2019, the debt has remained largely unchanged while equity has increased resulting in fall in FGEAR.

## 4.3.5 Spread

Spread is the difference between the debt interest rate (s) and ROIC. The spread should preferably be positive. Interest is a calculated as an average interest rate calculated on net financial assets and liabilities.

	2019	2018	2017	2016	2015
Net financial income (expense)	11.414,52	5.197,92	1.173,90	538,98	-497,64
Operating income	-14.539,48	-12.663,08	3.276,90	14.748,98	12.486,36
Average NOA	382.263,4	285.975,9	109.646,0	27.443,0	10.896,1
RNOA	-0,04	-0,04	0,03	0,54	1,15
NBC	-0,05	-0,04	-0,03	0,06	-0,08
SPREAD	0,01	-0,01	0,06	0,47	1,23

## 4.3.6 Preliminary Conclusion

The conclusion on the ratio analysis is that LanguageWire is on a positive track being a private equity startup company in emerging technology market. However rising operating costs have deteriorated operating margin which indicates that LW is facing problems in turning revenues into operating profits. LW's assets turnover ratio is largely static and its ROCE is also declining. It shows LW is struggling to create value from its operations. The positive SPREAD shows that the current capital structure is largely optimal for the company.

## 5. BUDGETING

Budgeting is normally preformed over a five-years horizon with a subsequent terminal period at the end of five-years. The five-years budget period is chosen because it is a reasonably realistic period. A longer period would have been too imprecise and a shorter one would make the terminal period unsteady. The budget period is chosen in a way so that it reaches "steadystate" in the terminal period. "Steady state" is the stage where the company achieves constant growth rates.

The following items are budgeted:

- Net Sales
- Operating Margin OG
- Net Assets Turnover rate AOH
- Tax rate

## 5.1 NET SALES

The Covid-19 negative outlook for the near future make budgeting on net sales difficult. However, LanguageWire has a diversified product offering to counter this challenge to certain extent.

The growth in net sales for the past two years is follows:

		(DK)	K in '000')
For the year ended	2019-12-31	2018-12-31	2017-12-31
Revenues	419.600,00	273.377,00	104.186,00
Sales growth	0,53	1,62	-

It is expected that the sales will continue to grow and follow a positive trend due to diversified product range and customer base. However, it depends on how long the Covid-19 crisis would continue.

## 5.2 OPERATING PROFIT MARGIN – OG

The operating profit margin is as follows:

Description	2019/12	2018/12	2017/12	2016/12	2015/12
OG	-3,01%	-4,97%	3,51%	*	*

The operating profit margin over the last two years is already in negative territory due to significant rise in operating costs. The Covid-19 crisis would further aggravate this situation; therefore, LW has to come up with some aggressive measures to reduce their operating costs. LW can cut their operating costs by reducing their staff costs in order to ensure positive operating cash flows.

## 5.3 NET ASSET TURNOVER RATE – AOH

AOH for the last five years is calculated as follows:

(DKK in '000')

Description	2019/12	2018/12	2017/12	2016/12	2015/12
Nettoomsætning	419.600,0	273.377,0	104.186,0	*	*
NDA	376.622,0	384.440,0	185.624,0	20.147,0	11.739,0
AOH (Gns. NDA)	1,10	0,96	1,01	*	*
1/AOH	0,91	1,04	0,99	*	*

\*Sales data for the year ended 2016, 2015 and 2014 is not available.

It is expected that AOH will largely remain static and will follow the last five-years trend.

## 5.4 TAX RATES

Tax rates have remained constant for the past five years. However, it is expected that the tax rates may decline to provide relief to the corporate sector to counter Covid-19 related adverse financial implications.

Tax rates for the last five years are as follows:

Fiscal year	2019	2018	2017	2016	2015
Marginal tax rate (from 10k footnote)	22,00%	22,00%	22,00%	22,00%	22,00%

## 6. VALUATION

In this section, the conclusions from the above analysis will be used to determine industry EBITDA in order to find the theoretical price of the LW. However there are many theoretical factors that are not considered in market-based valuation. Language translation industry is an emerging technology sector predominantly financed by private equity and venture capital. Therefore, cashflow-based valuations will be impractical and imprecise. The valuation based on multiple i.e. EBITDA and sales has been used. It is also evident from its recent use in merger and acquisition deals in the language translation industry.

## 6.1 DCF-MODEL

The DCF model, or the free cash flow model, calculates the value of a business by discounting the expected future free cash flows. The budget is made over a five-year period and a terminal period. The terminal period is in principle an infinite period. A strange size to calculate. As previously described, this is where the company achieves a steady future growth - also called "Steady-State".

To calculate the terminal value, use this formula:

$$Terminalværdi = \frac{FCF_1}{WACC - g}$$

WACC is described later and the four cash flow, FCF can be determined by this formula:

$$FCF = C - I$$

Where C is cash flows from operating activities and I is cash flows from investing activities. This model is the indirect model where the value of the company itself is estimated first. From this, the value of net financial liabilities - NFF is deducted. The result is the value of equity.

The fact that the value of equity is calculated by subtracting NFF from the value of the company means that you look at the operating activity and not the financing activity. As previously written, it is the operation that must be the driving factor and here the company makes its money.

## **WACC**

The discount factor is the WACC (weighted average cost of capital) or the weighted average cost of capital. Put another way, it is the average of the required rate of return of resp. equity and debt. Because when calculating the WACC for LW, there are some concepts and values that need to be determined.

WACC is calculated from the following values:

- Tax rate
- Company-specific risk / Firm's systematic Risk
- Risk-free interest rate /Normalized
- Return requirement for debt capital FK (after tax)
- Risk premium on Equity
- Expected return on the stock market
- BETA equity
- Return requirement for equity EK
- Capital Structure

## **Corporate Tax Rate**

The corporation tax in Denmark is 22% (2019). As LW has activities in both the Danish market and several foreign markets, an effective tax rate is set where both the Danish rate and the foreign rates are taken into account.

## Credit Spread (Risk Premium on NIBL)

LW corresponds to being a reasonably good company and this is assessed as probable, but as a creditor can obtain a relatively high interest rate. Therefore, the credit spread is set at 13.10% on net interest bearing liabilities (NIBL).

## 6.1.1 Risk-Free Interest Rate - R<sub>F</sub> (Normalised)

The risk-free interest rate is the return you as an investor get from a risk-free investment. The

effective interest rate on a long-term government bond is most often looked at. In this case, I have chosen the effective interest rate on a 10-year Danish government bond. In 2019, it had an effective interest rate 0.10%<sup>8</sup> which is extremely low due to negative yields on Danish bonds at the moment. Thus it has to be normalised to reflect the normal risk free rates in normal economic conditions and the reason to calculate normalised rate is that the valuation of the firm involves analysis on an infinity/perpetuity basis. It's reasonable to assume that the current uncertain economic conditions will reverse to normal in coming years.

Two methods has been used to estimate Normalised Risk-Free Interest Rate<sup>9</sup>:

1. Simple averaging - **4.41%** 

2. Various "build-up" methods - 3.30%
Risk-Free Rate = Real Rate + Expected Inflation
Risk-Free Rate = 3.20% + 0.1%

Please refer **Appendix 11** for data used in estimation.

## 6.1.2 Return Requirement for Debt Capital – K<sub>D</sub>/F<sub>K</sub> (After Tax)

The required return on debt is calculated on the basis of the below three variables. The so-called tax shield is recognized in the required rate of return. The formula looks like this:

$$R_{FK} = (R_f + R_s) \quad (1 - t)$$

Where R<sub>FK</sub> Investors' required rate of return

R<sub>F</sub>: Risk – free interest rate (Normalised Risk free rate) 3.30%

Rs: Credit spread (risk premium on NIBL) 13.10%

t: Corporate Tax Rate 22,00%

$$R_{FK} = (0.0330 + 0.1310) * (1 - 0.22) = 12.80\%$$

 $R_{FK} = K_D = 12.80\%$ 

<sup>&</sup>lt;sup>8</sup> <u>www.statbank.dk/MPK100</u> (Source: OECD)

 $<sup>^9\</sup> https://www.duffandphelps.com/-/media/assets/pdfs/publications/valuation/brexit-the-impact-on-cost-of-capital.pdf$ 

Generally credit risk translates into risk premium thus the pricing of a loan should be the sum of the funding cost (cost of deposits, borrowed funds and cost of equity), the expected loss and the lender's cost of administering and servicing the loan.

The table below reports the spreads measured over a two year period across different credit ratings. As shown in the table, the spreads increase as the credit rating worsens. For example: an "AAA" rating results in a spread between 0.6% to 1.9% whereas a "B" rating results in a spread between 3.2% to 13.1%. Thus to assess the credit risk the ratios given in the table has been calculated for LW and later compared to respective credit ratings column to see in which category it falls. LW has been classified to CCC rating as most of the ratios calculated falls under that category and also assigned 13.1% credit spread.

	Adjusted	Key Indust	rial Financi	ial Ratios				
	US Indust	US Industrial Long-term debt						
Three years Median	AAA	AA	А	BBB	BB	В	ссс	LW Ratios
EBIT interest cover (x)	21.4	10.1	6.1	3.7	2.1	0.8	0.1	3.6
EBITA interest cover (x)	26.5	12.9	9.1	5.8	3.4	1.8	1.3	0.9
Free Operating Cash flow/total debt (%)	84.2	25.2	15	8.5	2.6	-3.2	-12.9	-2.49%
Free Cash flow/total debt (%)	128.8	55.4	43.2	30.8	18.8	7.8	1.6	6.84%
Return on Capital (%)	34.9	21.7	19.4	13.6	11.6	6.6	1	-8.08%
Operating income /Revenue (%)	27	22.1	18.6	15.4	15.9	11.9	11.9	-1.45%
Long-term debt/capital (%)	13.3	28.2	33.9	42.5	57.2	69.7	68.8	-116%
Total debt/Capital	22.9	37.7	42.5	48.5	62.6	74.8	87.7	123%
US Industrial 10-year spread (two-year h	igh/low) to	US Treasu	iry, 10 yeai	r				
US Treasury,10-year	AAA	AA	А	BBB	BB	В		
3.38%	1.90	2.40	3.60	4.70	11.20	13.10%		
3.38%	0.60	0.70	0.80	1.30	2.60	3.20		

US industrial ratings and 10 year spread<sup>10</sup>

## **Risk premium on Equity**

Risk premium on shares, is the excess return the investor expects to receive in relation to a riskfree investment, e.g. a 10-year Danish government bond. The risk premium can be determined in several different ways:

- Average of different analysts' assessment of the risk premium.
- What has the historical (ex-post) risk premium been?
- What are the expectations for the future (ex-ante)?

<sup>&</sup>lt;sup>10</sup> Source: Bloomberg

According to Professor Aswath Damodaran list updated: July 1, 2020, there is currently a risk premium of 5.23%<sup>11</sup> - and they recommend it to be used for valuations.

	Moody's rating	Default Spread	Country Risk Premium	Equity Risk Premium	Sovereign CDS
Denmark	Ааа	0.00%	0.00%	5.23%	0.21%

## 6.1.3 Expected Return On Stock Market (*K<sub>E</sub>*)

The expected return to the stock market is found by the following formula:

$$R_M = R_f + R_{akt}$$

$$R_M = R_F + B_e * (R_M - R_F)$$

R <sub>M</sub> :	Expected Return on Stock Market	
R <sub>f</sub> :	Normalised Risk Free Rate	3,3%
R <sub>akt</sub> :	Equity Risk Premium	5,23%
$\mathbf{B}_{\mathrm{E}}$	Beta Equity	1.40
	R <sub>M</sub> : R <sub>f</sub> : R <sub>akt</sub> : B <sub>E</sub>	$R_M$ :Expected Return on Stock Market $R_f$ :Normalised Risk Free Rate $R_{akt}$ :Equity Risk Premium $B_E$ Beta Equity

$$R_M = (0.0330 + 0.0523) * (1.40) = 10.62\%$$
  
 $R_M = K_E = 10.62\%$ 

## 6.1.4 BETA Equity $(B_e)$

BETA says something about the risk on a single share in relation to the risk on the entire stock market. How much the stock rises / falls when the market rises / falls. The total risk on a share consists of two parts - systematic risk and unsystematic risk. The unsystematic risk can be diversified, while the systematic one due to company-specific conditions cannot.

$B_e = 0$	Risk Free
$0 < B_e < 1$	Investment with less risk than market
$B_e = 1$	Same risk as market
$B_e > 1$	Investment with greater risk than market

 $<sup>^{11}\,</sup>http://pages.stern.nyu.edu/~adamodar/New\_Home\_Page/datafile/ctryprem.html$ 

## Estimation of B<sub>e</sub> from fundamental factors:

As LW is unquoted company so it's beta cannot be derived from market easily by finding it in Bloomberg/Reuters or by looking for similar listed companies in the market. Alternative method would be to build on the fundamental characteristics of a firms profile.

Beta Equity	= Beta Asset	+ $(B_a - B_d) * NIBL/Equity$
Company specific risk	<b>Operational Risk</b>	Financial Risk

Types of Operating Risk	low, medium or high risk	The firm's ability to manage				
		operating risks				
External Risk	Medium	Reasonable				
Market Conditions	Medium	Is affected by the business cycle				
Legislation		The firm tries to affect public				
		opinion by lobbying,				
		advertisements etc.				
Strategic Risk	Low	Sufficient				
Rivalry among competitors	High	Positive Growth Market				
Suppliers power	Medium	Medium level of customer				
Customers power	High	concentration => downward				
Market Growth	High	pressure on prices due to Covid-19				
Substitute products	Medium	High risk of lower and more				
		unstable operating profit				
Operational Risk	High	Not Sufficient				
Utilisation of production facilities	Low	Management is struggling to				
Quality of management	Low	efficiently manage group entities				
Choice of cost structure						
Total assessment of operating risk: medium						
Negative market trends and earnings are under pressure due to Covid-19						
Management seems to handle external risks in a sensible manner, but there is insufficient attention to						
the strategic and operational risk indicators						

#### **Overall assessments of the operating risks Assessment:**

#### **Overall assessments of the Financial risks Assessment:**

Types of Financial Risk	low, medium or high risk	The firm's ability to manage Financial risks
Financial Leverage	High	Reasonable but high risk profile chosenAs the operating earnings are under pressure the high financial leverage should be monitored 
Loan characteristics	High	Reasonable but high risk profile
1. Variable interest rate	Medium High	chosen As a result of an increased pressure

2.	Short-term to maturity		on operating profit, it is assessed as being risky to use variable rates
3.	Primarily in euro (foreign Low currency)		with short maturity Most of its revenue billed in euros
Тс	otal assessment of Financial risk	: High	

#### Conversion of qualitative assessment of risk to an estimate of Beta equity:

<b>Operating Risk</b>	Financial risk	Total risk	Beta Equity
Low	Low	Very Low	0.40-0.60
Low	Neutral	Low	0.60-0.85
Low	High	Neutral	0.85-1.15
Neutral	High	High	1.15-1.40

Thus LW Beta Equity is **1.40** 

## 6.1.5 WACC $(K_F)$

WACC is an expression of the return LW must achieve at least of the invested capital in order to live up to the minimum return that both the owners and the lenders provide for their investment. WACC - the weighted average cost of capital can now be calculated. The formula looks like this:

	Denoted as	Formula		
Cost of capital for equity	k <sub>E</sub>	rf + beta*(rm-rf)		
Cost of capital for debt	k <sub>D</sub>	NBC		
Cost of operations/capital	k <sub>F</sub>	$k_{E}^{*}V_{E}/V_{F} + k_{D}^{*}V_{D}/V_{F}$		
For LW in 2019				
Normalised risk-free rate		3.3%		
Beta		1.40		
Market risk premium (rm-rf)		5.2%		
k <sub>E</sub>		10.6%		
k <sub>D</sub>		<mark>12.8%</mark>		
Market value of equity		69,649		
Net Financial Obligation		225,608		
Market value of the firm		295,257		
k <sub>F</sub> /Cost of Capital		10.2%		

It is assumed that the book value of Net Financial Obligation is same as the Market Value of debt.

## 6.2 VALUATION – DCF

Now the factors for use in the valuation have been calculated and reviewed. To calculate the value of LW, these factors are inserted into the DCF model. The calculation is seen below:

Assumption	ns	
Tax Rate		22%
Discount Rat	e (assumed)	10%
Perpetural G	rowth Rate	3.2%
EV/EBITDA I	Mulltiple	9.1x
Transaction [	Date	31/12/2019
Fiscal Year End		31/12/2019
Current Price	82.90	
Shares Outst	tanding	1,847
Debt		50,000
Cash		6,829
Capex		36,108

Discounted Cash Flow	Entry	2020	2021	2022	2023	2024	Exit
Date	31/12/2019	31/12/2020	31/12/2021	31/12/2022	31/12/2023	31/12/2024	31/12/2024
Time Periods		0	1	2	3	4	
Year Fraction		1.00	1.00	1.00	1.00	1.00	
EBIT		32,482	34,878	37,451	40,214	43,181	
Less: Taxes		7,146	7,673	8,239	8,847	9,500	
Plus: D&A		43,878	47,115	50,591	54,323	58,330	
Less: Capex		36,108	38,772	41,632	44,703	48,001	
Less: Changes in NWC		16,735	17,970	19,295	20,719	22,247	
Unlevered FCF		16,371	17,578	18,875	20,267	21,763	
(Entry)/Exit	153,112						320,843
Transaction CF	153,112	16,371	17,578	18,875	20,267	21,763	320,843
Terminal Value			Enterprise Value				
Perpetural Growth	320,843						
EV/EBITDA			Value of the LW	DKK 295,257			
Average	320,843						

Please refer Appendix 12 for data used in estimation.

Growth Valuations of LW	
Cost of capital for operations	10.20%
RNOA, 2019(on average NOA)	-4.12%
Growth rate for net operating assets (2014-2019)	992.3%
Net operating assets, 2019	378,720.0
Common shareholders' equity, 2019	153,112.0
Growth forecast of operating income, 2020	(15,587.7)
Growth forecast of ReOI, 2020	(54,217.1)
Value of common equity	
$v_{E} = CSE+ ReOI_{1}/(k_{F}-g)$	158,632.5
Value of operations	
$v_{NOA} = v_E + NFO$	384,240.5
$v_{NOA} = NOA + ReOI_1/(k_F-g)$	384,240.5
$v_{NOA} = NOA^{*}(RNOA-g)/(k_{F}-g)$	384,240.5

## 6.3 EBITDA - MODEL

The EBIT multiple method The EBIT multiple method is widely used, and is a practical method for pricing companies. The method is based on the following model:

## Value of company = EV - interest-bearing debt + cash balance

Enterprise Value, EV, is the same as the value of the total company Incl. debt. EV exists as a multiplier, multiple, of the normalized operating income for interest, EBIT. Or as a multiple of depreciation, EBITDA.

## **6.3.1** The EBIT Multiple:

The EBIT multiple, which is thus an expression of the company's value, depends on a large number of factors:

• The size of the company: The start-up of a company has some significance. as larger companies have more potential buyers. For example, private equity funds have a lower limit on the size of a company, which goes at approx. 75 - 100mio. DKK i.e. companies at or above this limit may attract this purchasing power group, which has an impact on the price.

- Dissemination of customers, suppliers and products.
- Uniqueness of the products: If it is own products, the company's concept can be scaled and exported. Is it products with continuous decline or is it one-time sales every time
- The products' price sensitivity: Is there intense price competition in the market, or is it niche products without significant price competition.
- Market growth.
- Start-up barriers, high or low.
- The organization, employees' competence level, salary (on market level) and age, the dependence on the owner. Is there an internal management under the owner.
- Internal organization with a well-functioning financial system with the possibility of monitoring profitability.
- The machine park's update and age.
- Stability in results (including cyclical errors).
- Growth opportunities or limitations.
- Number of potential buyers: There are typically many buyers if the company operates with products / concepts that many can understand, or is in a large industry with many acts (who can take over the company), or the company can be taken over by many MBi's (private individuals with knowledge and tenacious capital that wishes to own and run its own business) with generalist knowledge.

## 6.3.2 Characteristics of Price Levels

Below is a description of the characteristics of a company, if it is priced at a certain level, to show which factors are important in the pricing of a company. It should be pointed out here that this level can change quite a lot over time, as price formation depends on the general economic situation, the banks' situation, etc. The levels of EBIT multiples shown below are valid in a normal business cycle situation.

## EBIT multiple 7 - 8

Very high profit expectations, own unique products, very few risks in the business model, very limited dependence on owner and key people in company. Huge diversity on customers and suppliers base. Understanding the company business concept and the company concept

that it can be scaled up abroad. Many buyers, both private equity funds and industrial buyers, i.e.. the company must have a bigger size.

#### EBIT multiple 6 - 7

High growth expectations, own products, opportunity to scale the business concept abroad. Relatively limited dependence on owner, big diverse base of customers and suppliers. Relatively many buyers.

#### EBIT multiple 5 - 6

Solid production companies with their own products with good regular customer relationships and a well-established name. Possibly a bit dusty companies with an untapped potential for growth (by a dedicated sales effort). Stable earnings pattern. Trading companies without significant dependence on suppliers or customers. Limited dependence on owner and relatively many cabers. Many companies are in this range.

#### EBIT multiple 4 - 5

Clear dependence on owner or key people, limited spread on customers suppliers or products, unstable earnings, limited number of buyers. Many companies are in this range.

#### EBIT-multiple 3-4

Risky companies with significant dependence on few customers or suppliers, subcontracting company without special competencies, or the company located in a very cyclically sensitive industry. Few buyers

Note that the above value indications are exclusive of synergy value when selling to a strategic buyer. The EBIT multiple method is especially justified when pricing relatively stable companies, with a relatively stable earnings growth.

## 6.4 VALUATION – EBITDA

## **Industry - EBITDA**

In order to determine the valuation of LanguageWire, it is necessary to compute EBITDA of the language translation industry. Denmark's Language industry is dominated by three largest language service providers i.e. EasyTranslate A/S, Adhoc Translations A/S, Transperfect Denmark ApS. Industry average has been calculated by taking average of 5-years EBITDA average of each of these three companies.

							DK ''000''
EBITDA	2019	2018	2017	2016	2015	2014	Average
EasyTranslate	0	13.148	6.109	677	1.471	(1.635)	6.419
Adhoc Translations	0	3.016	2.000	(1.366)	868	(963)	1.672
TransPerfect Denmark	0	90	112	35	70	39	67
Denmark Industry Average	2.719						

Please note no financial data available for 2019 so it has not been included in calculating industry average. The industry EBITDA is calculated as **2.719 million DKK**.

## LW EBITDA

Language Wire						
	2019	2018	2017	2016	2015	2014
Gross profit/loss	168,458	103,807	44,659	82,595	76,139	68,327
Staff costs	(135,976)	(78,974)	(32,060)	(63,153)	(58,680)	(53,197)
EBITDA	32,482	24,833	12,599	19,442	17,459	15,130
Average	23,304.67					
LW Assumptions			Enterprise Value			
EBITDA, 2019	DKK 3	2,482				
EBITDA Multiple x		9.1	Valu	e of the LW	DK	<u>K 295,586</u>

**CataCap II K/S** strives to apply techniques that take into account the nature, facts and circumstances of the investments using current market data and inputs.

When valuing the portfolio companies, CataCap II K/S seeks to select the valuation technique that is most appropriate for the specific investment in question. The techniques that CataCap II K/S considers to include

are:

— Price of recent investment

#### — Multiples.

Although each valuation technique may have its merits under different circumstances, CataCap II K/S will generally consider price of recent investment or multiples as the most appropriate method for assessing the FMV of an investment that is making adequate returns. More specifically, price of recent investment will typically be the best indicator of FMV short-term, while multiples typically will be applied medium to long term.<sup>12</sup>

## 7. CONCLUSION

The main issue in the problem statement was the following:

## "What should be the theoretical fair value of LW if private equity fund (CataCap) wishes to divest in it as at 31.12.2019?"

The theoretical fair value has been found through detailed theoretical and accounting analysis of LanguageWire A/S. This has been summarized in the budgeting and final valuation. The financial analysis showed that LanguageWire has a good brand that they can build on it in the future, in addition they have a wide range and a state-of-the-IT language translation platforms.

In connection with the financial analysis, a reformulation of the income statement and the balance sheet has been prepared. These reformulated statements form the basis for the key figures analysis. This part of accounting analysis is performed according to the extended DuPont model. It demonstrated that LanguageWire is a business in industry with growth potential. LW is struggling with rising operating with a potential to further increase due to Covid-19 related adverse financial implications. However, LW is reasonably better in comparison to its competitors in near future due to its diversified product and customer base.

It is expected that the average EBITDA multiples will remain in the 4–7 times range for smaller deals and over 8 times for larger or more specialized players. Generally, valuation has remained fairly stable over the past three years with perhaps a small uptick in 2019. Valuation expectations by founders and owners, however, remains fairly elevated, which slows overall

<sup>&</sup>lt;sup>12</sup> Annual report 2019 - Catacap II KS page 14

deal flow as buyers, many of which are backed by investment funds, are somewhat cautious and highly selective given the strong secular trend toward automation in the language industry. Private equity (PE) remains a driving force in the language industry, but the overall volume of deals by PE-backed language service providers (LSPs) has slowed a bit in 2019 as some funds are likely looking for an exit as their investments mature. This divestiture trend will rise due to Covid-19 related adverse financial implications. Considering LW as specialized player in LSPs market the valuation of it should be approx. 9.1<sup>13</sup> times 2019 LW EBITDA.

The theoretical fair value of LW if private equity fund (CataCap) wishes to divest in it as at 31.12.2019 should be 295.586 Million DKK."

<sup>&</sup>lt;sup>13</sup> Annual report 2019 - Catacap II KS

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## 9. APPENDIX

## 9.1 LW –FINANCIAL STATEMENTS

## 9.1.1 Appendix 1 - LW – Income Statement

					DK "000"
Consolidated income statement	2019	2018	2017	2016	2015
Revenue	419.600	273.377	104.186		
Other operating income	158	2.314	778		
Cost of sales	(195.119)	(122.578)	(47.595)		
Other external expenses	(56.181)	(49.306)	(12.710)		
Gross profit/loss	168.458	103.807	44.659	82.595	76.139
Staff costs	(135.976)	(78.974)	(32.060)	(63.153)	(58.680)
Depreciation, amortisation and impairment losses	(43.878)	(37.165)	(6.722)	(813)	(895)
Operating profit/loss	(11.396)	(12.332)	5.876	18.627	16.564
Other financial income	385	1.958	1.254	660	995
Other financial expenses	(15.019)	(8.622)	(2.759)	(1.351)	(357)
Profit/loss before tax	(26.030)	(18.996)	4.371	17.937	17.202
Tax on profit/loss for the year	1.987	200	(1.888)	(4.061)	(4.089)
Profit/loss for the year	(24.043)	(18.796)	2.483	13.876	13.112

## 9.1.2 Appendix 1 - LW – Balance Sheet

					DK "000"
Consolidated balance sheet	2019	2018	2017	2016	2015
Completed development projects	15.528	17.215	16.949	6.238	1.254
Acquired intangible assets	179.336	207.172	77.972	0	0
Goodwill	196.820	208.324	96.650	0	0
Development projects in progress	18.072	658	0	6.243	0
Intangible assets	409.756	433.369	191.572	12.482	1.254
Other fixtures and fittings, tools and equipment	3.713	4.305	878	857	597
Property, plant and equipment	3.713	4.305	878	857	597
Other investments	890	0	0	0	0
Deposits	1.200	1.126	364	0	0
Fixed asset investments	2.090	1.126	364	0	0
Fixed assets	415.559	438.800	192.815	13.339	1.851
Trade receivables	80.350	80.568	37.791	25.095	25.210
Contract work in progress	6.668	4.596	3.425	2.535	3.221
Receivables from associates	0	0	754	40	0
Deferred tax	4.553	7.036	0	0	0
Other receivables	1.184	2.748	4.497	2.096	906
Income tax receivable	4.257	268	0	4.285	3.307
Prepayments	1.678	2.566	359	1.857	902
Receivables	98.690	97.782	46.826	35.911	33.546
Cash	6.829	27.701	383	4.890	12.091
Current assets	105.519	125.483	47.210	40.802	45.637
Assets	521.078	564.283	240.026	54.141	47.488

Contributed capital	1.847	1.784	1.072	500	500
Retained earnings	151.265	173.836	110.481	16.540	10.330
Proposed dividend for the year				8.000	13.000
Equity	153.112	175.620	111.553	25.040	23.830
Provision for Deferred tax	55.491	59.432	2.997	2.613	319
Provisions	55.491	59.432	2.997	2.613	319
Bank loans	0	223.521	46.600	0	0
Payables to shareholders and management	0	0	11.064	0	0
Other payables	0	0	11.064	0	0
Non-current liabilities other than provisions	0	223.521	68.729	0	0
Current portion of long-term liabilities other than provisions	0	13.000	27.851	0	0
Bank loans	230.339	0	0	0	0
Prepayments received from customers	12.723	14.396	6.390	5.301	3.451
Trade payables	39.130	39.618	6.457	5.791	3.349
Payables to group enterprises	0	184	113	0	1.125
Payables to shareholders and management	184	563	0	0	0
Income tax payable	479	2.421	2.451	730	2.745
Other payables	29.620	35.528	13.480	14.665	12.669
Current liabilities other than provisions	312.475	105.710	56.745	26.488	23.339
Liabilities other than provisions	312.475	329.231	125.475	26.488	23.339
Equity and liabilities	521.078	564.283	240.026	54.141	47.488

## 9.1.3 Appendix 1 - LW – Cash Flow Statement

					DKK'000
Consolidated cash flow statement	2019	2018	2017	2016	2015
Operating profit/loss	(11.396)	(12.332)	5.876	13.876	13.112
Amortisation, depreciation and impairment losses	43.878	37.165	6.716	5.565	4.346
Working capital changes	(3.443)	(13.857)	(5.490)	4.200	2.408
Cash flow from ordinary operating activities	29.039	10.976	7.102	23.641	19.867
Financial income received	385	1.958	1.254	661	995
Financial expenses paid	(19.418)	(9.701)	(2.287)	(1.351)	(357)
Income taxes refunded/(paid)	(5.404)	(2.091)	906	(4.849)	(4.956)
Cash flows from operating activities	4.602	1.142	6.975	18.101	15.549
Acquisition etc of intangible assets	(18.904)	(7.886)	(2.308)	(11606)	(1319)
Acquisition etc of property, plant and equipment	(796)	(87)	(421)	(695)	(200)
Sale of property, plant and equipment	28	0	5	0	0
Acquisition of enterprises	(6.765)	(192.406)	(198.419)	0	0
Repayments received	0	4.054	0	0	0
Cash flows from investing activities	(26.437)	(196.325)	(201.144)	(12.301)	(1.519)
Loans raised	11.407	237.154	85.720	0	0
Repayments of loans etc	(13.000)	(96.581)	0	0	(4.986)
Cash increase of capital	3.446	81.928	108.832	0	0
Other cash flows from financing activities	(890)	0	0	0	0
Dividend Paid	0	0	0	(13.000)	(10.000)
Cash flows from financing activities	963	222.501	194.552	(13.000)	(14.986)
Increase/decrease in cash and cash equivalents	(20.872)	27.318	383	(7.200)	(956)
Cash and cash equivalents beginning of year	27.701	383	0	12090	13047
Cash and cash equivalents end of year	6.829	27.701	383	4.890	12.090

## 9.1.4 Appendix 1 - LW –Statement Of Changes in Equity

Consolidated statement of changes in equity			2019	
	Contributed capital	Retained earnings	Total DKK'000	
Equity beginning of year	1.784	173.836	175.620	
Increase of capital	63	3.383	3.446	
Exchange rate adjustments	0	(1.911)	(1.911)	
Profit/loss for the year	0	(24.043)	(24.043)	
Equity end of year	1.847	151.265	153.112	
Consolidated statement of changes in equity			2018	
	Contributed capital	Retained earnings	Total DKK'000	
Equity beginning of year	1.072	110.480	111.552	
Effect of mergers and business combinations	0	1.240	1.240	
Increase of capital	712	81.217	81.929	
Exchange rate adjustments	0	(305)	(305)	
Profit/loss for the year	0	(18.796)	(18.796)	
Equity end of year	1.784	173.836	175.620	
			2015	
Consolidated statement of changes in equity			2017	
	Contributed capital	Retained earnings	Total DKK'000	

Contributed upon formation	500	0	500	
Increase of capital	572	107.759	108.332	
Exchange rate adjustments	0	(381)	(381)	
Other entries on equity	0	619	619	
Profit/loss for the year	0	2.483	2.483	
Equity end of year	1.072	110.481	111.553	
Consolidated statement of changes in equity			2016	
	Contributed capital	Retained earnings	Proposed dividend	Total
			for the year	DKK'000
Equity at 1 January	500	10.330	13.000	23.830
Ordinary dividend paid	0	0	(13.000)	(13.000)
Fair value adjustment of hedging instruments,	0	(273)	0	(273)
beginning of year				
Fair value adjustment of hedging instruments, end of	0	695	0	695
year				
Tax on adjustment of hedging instruments for the	0	(88)	0	(88)
year				
Net profit/loss for the year	0	5.876	8.000	13.876
Equity at 31 December	500	16.540	8.000	25.040

Consolidated statement of changes in equity			2015	
	Contributed capital	Retained earnings	Proposed dividend	Total
			for the year	DKK'000
Equity at 1 January	500	10.346	10.000	20.846
Ordinary dividend paid	0	0	(10.000)	(10.000)
Fair value adjustment of hedging instruments,	0	(448)	0	(448)
beginning of year				
Fair value adjustment of hedging instruments, end of	0	273	0	273
year				
Tax on adjustment of hedging instruments for the	0	46	0	46
year				
Net profit/loss for the year	0	113	13.000	13.113
Equity at 31 December	500	10.330	13.000	23.830

## 9.2 LW – REFORMULATED FINANCIAL STATEMENTS

## 9.2.1 Appendix 3 - LW – Reformulated Income Statement

for the year ended	31-12-2019	31-12-2018	31-12-2017	31-12-2016	31-12-2015
Operating revenue	419.600,00	273.377,00	104.186,00	-	-
Cost of sales	(195.119,0)	(122.578,0)	(47.595,0)	-	_
Gross margin	224.481,0	150.799,0	56.591,0	82.595,0	76.139,0
Operating expenses					
Administrative expenses	(135.976,0)	(78.974,0)	(32.060,0)	(63.153,0)	(58.680,0)
Advertising	-	- 1	- 1	- 1	
Amortization of identifiable intangibles	-	-	-	-	-
Other expense, net	(56.023,0)	(46.992,0)	(11.932,0)	-	-
Total operating expenses	(191.999,0)	(125.966,0)	(43.992,0)	(63.153,0)	(58.680,0)
Core operating income (before tax)	32.482,0	24.833,0	12.599,0	19.442,0	17.459,0
Tax on operating income					
Tax as reported	1.987,0	200,0	(1.888,0)	(4.061,0)	(4.089,0)
Tax on other operating income	(9.653,2)	(8.176,3)	(1.478,8)	(178,9)	(196,9)
Tax benefit from net interest expenses	(3.219,5)	(1.466,1)	(331,1)	(152,0)	140,4
Total tax on operating income	(10.885,6)	(9.442,4)	(3.697,9)	(4.391,9)	(4.145,5)
Core operating income (after tax)	21.596,4	15.390,6	8.901,1	15.050,1	13.313,5
Other operating income (expense) (before tax)				,	
Gains on divestitures	0	0	0	0	0
	43 878 0	37 165 0	6 722 0	813.0	895.0
Restructuring charge net		-	011 22,0	0.0,0	000,0
Tax on other operating income	(9.653.2)	(8 176 3)	(1 478 8)	(178.9)	(196.9)
	34.224.8	28.988.7	5.243.2	634.1	698.1
Other operating income (expense) (after tax)				,-	, -
Currency translation gains (loss)	1.911.0	305.0	381.0	-	-
Net hedging gain (loss)	_	-	-	(333.0)	129.0
Adjustment for Accounting Changes		(1.240,0)	-	-	,
Effect of stock option exercise	_	-	-	-	-
Total other operating income (expense)	36.135,8	28.053,7	5.624,2	301,1	827,1
Operating income after tax	(14.539,5)	(12.663,1)	3.276,9	14.749,0	12.486,4
Financial income (NFE)					
Interest expense	14249,0	4706,0	251,0	31,0	(1633,0)
Interest income	385,0	1.958,0	1.254,0	660,0	995,0
Net interest Income (expense) before tax	14.634,0	6.664,0	1.505,0	691,0	(638,0)
Tax benefit of debt	(3.219,5)	(1.466,1)	(331,1)	(152,0)	140,4
Net financial income (expense)	11.414,5	5.197,9	1.173,9	539,0	(497,6)
Comprehensive income (available to common)	(25.954,0)	(17.861,0)	2.103,0	14.210,0	12.984,0

9.2.2 Appendix 3 - LW – Reformulated Balance Sheet

As at 31 December	31-12-2019	31-12-2018	31-12-2017	31-12-2016	31-12-2015
Net operating assets (NOA):					
Operating assets					
Cash and equivalents	2.098,00	1.366,89	520,93	-	-
Accounts receivable, less allowance for doubtful accounts	80.350,0	80.568,0	37.791,0	25.095,0	25.210,0
Inventories	6.668,0	4.596,0	3.425,0	2.535,0	3.221,0
Prepaid expenses and other current assets	2.862,0	5.314,0	5.610,0	3.993,0	1.808,0
Property, plant and equipment, net	3.713,0	4.305,0	878,0	857,0	597,0
Goodwill	196.820,0	208.324,0	96.650,0	-	-
Identifiable intangible assets	212.936,0	225.045,0	94.922,0	12.482,0	1.254,0
Deferred income taxes and other assets	10.900,0	8.430,0	364,0	4.285,0	3.307,0
Total operating assets	516.347,0	537.948,9	240.160,9	49.247,0	35.397,0
Operating liabilities					
Accounts payable - non-interest bearing	39.130,0	39.618,0	6.457,0	5.791,0	3.349,0
Accrued liabilities	42.527,0	50.671,0	19.983,0	6.966,0	7.245,0
Income taxes payable	479,0	2.421,0	2.451,0	730,0	2.745,0
Deferred income taxes and other liabilities	55.491,0	59.432,0	25.125,0	2.613,0	319,0
Total operating liabilities	137.627,0	152.142,0	54.016,0	16.100,0	13.658,0
Net operating assets (NOA):	378.720,0	385.806,9	186.144,9	33.147,0	21.739,0
Net financial assets (obligations) (NFA/NFO):					
Financial assets					
Cash equivalent	4.731,0	26.334,1	(137,9)	4.890,0	12.091,0
Short-term investments	-	-	-	-	-
Total financial assets	4.731,0	26.334,1	(137,9)	4.890,0	12.091,0
Financial liabilities			• • •		
Current portion of long-term debt	-	13.000,0	27.851,0	-	-
Notes payable	230.339,0	_	_	-	-
Accounts payable - interest bearing	-	-	-	-	-
Long-term debt	-	223.521,0	46.600,0	-	-
Redeemable Preferred Stock	-	-	-	-	_
Total financial liabilities	230.339,0	236.521,0	74.451,0	-	-
Net financial assets (obligations) (NFA/NFO)	(225.608,0)	(210.186,9)	(74.588,9)	4.890,0	12.091,0
Common Shareholders' Equity (CSE)	153.112,0	175.620,0	111.556,0	38.037,0	33.830,0

## 9.2.3 Appendix 3 - LW – Reformulated Statement Of Changes in Equity

			Adjustments to equity: A check			
			Dividends	Stock	Adjusted equity	
			payable	compensation	balance	
BALANCE AT December 31, 2015		20.830,0	10.000,0	-	33.830,0	
Transactions with Shareholders						
Stock issues for stock options	-					
Stock issued to employee	-					
Stock repurchases	-					
Common dividends	(10.000,0)	(10.000,0)				
Comprehensive income						
Net income reported	13.876,0					
Net translation gain (loss)	333,0					
Loss on option exercise	-					
Tax benefit		14.209,0				
BALANCE AT December 31, 2016		25.039,0	13.000,0	-	38.039,0	
Transactions with Shareholders						
Stock issues for stock options	-					
Stock issued to employee	109.451,1					
Stock repurchases	-					
Common dividends	(13.000,0)	96.451,1				
Comprehensive income						
Net income reported	2.483,2					
Net translation gain (loss)	(381,0)					
Loss on option exercise	-					
Tax benefit		2.102,2				
BALANCE AT December 31, 2017		98 553 3	_	_	111 553 3	
Transactions with Shareholders			İ			
Stock issues for stock options						
Stock issued to employee	81 929 0					
Stock repurchases	01.929,0					
Common dividends		81 929 0				
Comprehensive income		81.929,0				
Net income reported	(18 796 0)					
Net translation gain (loss)	(18.796,0)					
Net hedging gain (loss)	(303,0)					
Adjustment for Accounting Changes	1 240 0					
Loss on option exercise	1.240,0					
Tax benefit		(17.861,0)				
BALANCE AT December 31, 2018		162.621,3	-	-	175.621,3	
ransactions with Shareholders						
Stock issues for stock options	-					
Stock issued to employee	3.446,0					
Stock repurchases	-					
Common dividends	-	3.446,0				
Comprehensive income						
Net income reported	(24.043,0)					
Net translation gain (loss)	(1.911,0)					
Net hedging gain (loss)	-					
Loss on option exercise	-					
Tax benefit		(25.954,0)				
BALANCE AT December 31, 2019		140.113 3	_	_	153,113 3	

## 9.2.4 Appendix 3 - LW – Reformulated Cash Flow Statement

Cash provided (used) by operations:         (11.396,0)         (12.332,0)         5.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         13.876,0         33.451,0           Cumulative effect of accounting change         4.2517,0         36.707,0         6.573,0         436,0         374,0           Depreciation         response         (19.033,0)         (7.743,0)         (10.33,0)         (690,0)         638,0           Deferred income taxes         response         (2.091,0)         906,0         (4.849,0)         (4.956,0)           Income taxes         response         (10.075,0)         (9.025,0)         (11.774,0)         (1.385,0)         (2.174,0)           Incorease in current assets and income taxes payable, accrued         60,0         417,0         257,4         421,0         (174,1)           Inbidities and income taxes payable, accrued         (19.700,0)         (7.973,0)         (2.228,0)         (12.301,0)         (15.48,9)           Cash provided (used) by investing activities:         response         response         response	year ended	2019-12-31	2018-12-31	2017-12-31	2016-12-31	2015-12-31
Net income         (11.396,0)         (12.332,0)         5.876,0         13.876,0         13.112,0           Cumulative effect of accounting change         (11.396,0)         (12.332,0)         5.876,0         13.876,0         13.112,0           Cumulative effect of accounting change         (11.396,0)         (12.332,0)         5.876,0         13.876,0         3451,0           Depreciation         (11.396,0)         (12.332,0)         36.707,0         6.573,0         436,0         374,0           Non-case hortion of restructuring charge         (19.033,0)         (7.743,0)         (1.033,0)         (690,0)         638,0           Deferred income taxes         incertain working capital components:         1.361,0         456,0         113.76,0         521,0           Income tax benefit from exercise of stock options         (1.075,0)         (9.025,0)         (11.774,0)         (1.385,0)         (2.174,0)           Decrease (increase) in orber current assets and         (60,0)         417,0         257,4         421,0         (174,1)           (Decrease) increase in accounts payable, accrued         (5.248,0)         6.026,6         5.164,0         4.757,0           Iabilities and income taxes payable         (2.428,0)         (5.248,0)         (2.729,0)         (12.301,0)         (1.5148,9)	Cash provided (used) by operations:					
Income charges (credits) not affecting cash:         4.571,0         3.451,0           Cumulative effect of accounting charge         42.517,0         36.707,0         6.573,0         4.36,0         374,0           Depreciation         90.677,0         6.573,0         4.36,0         374,0           Depreciation         90.677,0         6.573,0         4.36,0         374,0           Stock-based compensation         -         -         -         -         -           Impairment of goodwill, intracibles and other asset         (19.033,0)         (7.743,0)         (1.033,0)         (690,0)         638,0           Deferred income taxes         fint from exercise of stock options         (5.404,0)         (2.091,0)         906,0         (4.849,0)         (4.956,0)           Changes in certain working capital components:         -         <	Net income	(11.396,0)	(12.332,0)	5.876,0	13.876,0	13.112,0
Cumulative effect of accounting change         42.517.0         36.707.0         6.573.0         436.0         374.0           Stock-based compensation         -         <	Income charges (credits) not affecting cash:				4.751,0	3.451,0
Depreciation         42.517,0         36.707,0         6.573,0         436,0         374,0           Stock-based compensation         - <td>Cumulative effect of accounting change</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Cumulative effect of accounting change					
Stock-based compensation         -          Decerease in invererise in acc	Depreciation	42.517,0	36.707,0	6.573,0	436,0	374,0
Impairment of goodwill, intangibles and other assets         -        <	Stock-based compensation	-	-	_	-	-
Non-cash portion of restructuring charge         (19.033,0)         (7.743,0)         (1.033,0)         (660,0)         638,0           Deferred income taxes         -	Impairment of goodwill, intangibles and other assets	-	-	-	-	-
Deferred income taxes         -	Non-cash portion of restructuring charge	(19.033,0)	(7.743,0)	(1.033,0)	(690,0)	638,0
Amortization and other         1.361,0         458,0         143,0         378,0         521,0           Income tax benefit from exercise of stock options         (5.404,0)         (2.091,0)         906,0         (4.849,0)         (4.956,0)           Changes in certain working capital components:         -	Deferred income taxes	-	-	-	-	-
Income tax benefit from exercise of stock options         (5.404,0)         (2.091,0)         906,0         (4.849,0)         (4.956,0)           Changes in inventories         - <td< td=""><td>Amortization and other</td><td>1.361,0</td><td>458,0</td><td>143,0</td><td>378,0</td><td>521,0</td></td<>	Amortization and other	1.361,0	458,0	143,0	378,0	521,0
Changes in certain working capital components:         Increase         Increase<	Income tax benefit from exercise of stock options	(5.404,0)	(2.091,0)	906,0	(4.849,0)	(4.956,0)
Increase in invertories         -	Changes in certain working capital components:	· · · · ·				• • • •
Decrease (increase) in accounts receivable         (1.075,0)         (9.025,0)         (11.774,0)         (1.385,0)         (2.174,0)           income taxes receivable         60,0         417,0         257,4         421,0         (174,1)           (Decrease) increase in accounts payable, accrued         (2.428,0)         (5.249,0)         6.026,6         5.164,0         4.757,0           Cash provided by operations         4.602,0         1.142,0         6.975,0         18.102,0         15.548,9           Gash provided (used) by investing activities:         -         -         -         -         -           Maturities of short-term investments         -	Increase in inventories	_	-	_	_	_
Decrease (increase) in other current assets and income taxes receivable         60,0         417,0         257,4         421,0         (174,1)           (Decrease) increase in accounts payable, accrued liabilities and income taxes payable         (2.428,0)         (5.249,0)         6.026,6         5.164,0         4.757,0           Cash provided by operations         4.602,0         1.142,0         6.975,0         18.102,0         15.548,9           Cash provided used) by investing activities:         - </td <td>Decrease (increase) in accounts receivable</td> <td>(1.075,0)</td> <td>(9.025,0)</td> <td>(11.774,0)</td> <td>(1.385,0)</td> <td>(2.174,0)</td>	Decrease (increase) in accounts receivable	(1.075,0)	(9.025,0)	(11.774,0)	(1.385,0)	(2.174,0)
income taxes receivable         660,0         417,0         257,4         421,0         (177,1)           (Decrease) increase in accounts payable, accrued         (2,428,0)         (5,249,0)         6.026,6         5.164,0         4.757,0           Cash provided (used) by investing activities:         -	Decrease (increase) in other current assets and					
(Decrease) increase in accounts payable, accrued liabilities and income taxes payable         (2.428,0)         (5.249,0)         6.026,6         5.164,0         4.757,0           Cash provided (used) by investing activities:         - <td< td=""><td>income taxes receivable</td><td>60,0</td><td>417,0</td><td>257,4</td><td>421,0</td><td>(174,1)</td></td<>	income taxes receivable	60,0	417,0	257,4	421,0	(174,1)
liabilities and income taxes payable         (2.428,0)         (5.249,0)         6.026,6         5.164,0         4.757,0           Cash provided by operations         (4.602,0)         1.142,0         6.975,0         18.102,0         15.548,9           Cash provided (used) by investing activities:         -	(Decrease) increase in accounts payable, accrued					· · · ·
Cash provided by operations         4.602,0         1.142,0         6.975,0         18.102,0         15.548,9           Cash provided (used) by investing activities:         -<	liabilities and income taxes payable	(2.428,0)	(5.249,0)	6.026,6	5.164,0	4.757,0
Cash provided (used) by investing activities:       -       -       -       -         Purchases of short-term investments       -       -       -       -       -         Additions to property, plant and equipment       (19.700,0)       (7.973,0)       (2.729,0)       (12.301,0)       (1.519,0)         Increase in other assets       -       -       -       -       -       -         Increase in other assets       -       -       -       -       -       -       -         Increase (decrease) in other liabilities       -	Cash provided by operations	4.602,0	1.142,0	6.975,0	18.102,0	15.548,9
Purchases of short-term investments         -	Cash provided (used) by investing activities:					·
Maturities of short-term investments       -       -       -       -       -         Additions to property, plant and equipment       (19.700,0)       (7.973,0)       (2.729,0)       (12.301,0)       (1.519,0)         Disposals of property, plant and equipment       28,0       -       5,0       -       -         Increase in other assets       - </td <td>Purchases of short-term investments</td> <td>_</td> <td>-</td> <td>-</td> <td>_</td> <td>_</td>	Purchases of short-term investments	_	-	-	_	_
Additions to property, plant and equipment       (19.700,0)       (7.973,0)       (2.729,0)       (12.301,0)       (1.519,0)         Disposals of property, plant and equipment       28,0       -       5,0       -       -         Increase in other assets       -	Maturities of short-term investments	_	-	_	_	_
Disposals of property, plant and equipment         28,0         -         5,0         -         -           Increase in other assets         -         <	Additions to property, plant and equipment	(19.700,0)	(7.973,0)	(2.729,0)	(12.301,0)	(1.519,0)
Increase in other assetsIncrease in other liabilitiesIncrease in other liabilitiesIncrease in other liabilitiesIncrease in other liabilitiesIncrease (decrease) in other liabilitiesSettlement of net investment hedgesIncrease (decrease) in other liabilitiesIncrease (decrease) (192.406,0)(198.419,0)Increase (decrease) (198.419,0)Proceeds from divestureIncrease (decrease) (192.406,0)Intrease (198.419,0)Increase (decrease) (198.419,0)Increase (decrease) (198.419,0)Cash used by investing activitiesIntrease (decrease) (198.419,0)Intrease (decrease) (198.419,0)Intrease (decrease) (198.419,0)Intrease (decrease) (198.419,0)Cash used by investing activitiesIntrease (decrease) (198.419,0)Intrease (decrease) (198.419,0)Intrease (decrease) (198.419,0)Intrease (decrease) (198.419,0)Cash used by investing activitiesIntrease (decrease) (198.419,0)Intrease (decrease) (198.419,0)Intrease (decrease)	Disposals of property, plant and equipment	28,0	-	5,0	-	-
Increase (decrease) in other liabilities	Increase in other assets	_	-	_	_	_
Settlement of net investment hedges	Increase (decrease) in other liabilities	_	-	_	_	_
Acquisition of subsidiary, net of cash acquired       (6.765,0)       (192.406,0)       (198.419,0)       -       -       -         Proceeds from divesture       -       4.054,0       -	Settlement of net investment hedges	_	-	-	_	_
Proceeds from divesture-4.054,0Cash used by investing activities(26.437,0)(196.325,0)(201.143,0)(12.301,0)(1.519,0)Cash provided (used) by financing activities:11.407,0237.154,085.720,0Additions to long-term debt11.407,0237.154,085.720,0Reductions in long-term debt including current portion(13.890,0)(96.581,0)(Decrease) increase in notes payableProceeds from exercise of options and other stock3.446,081.928,0108.832,0Excess tax benefits from share-based paymentRepurchase of stock<	Acquisition of subsidiary, net of cash acquired	(6.765.0)	(192,406.0)	(198.419.0)	_	_
Cash used by investing activities       (26.437,0)       (196.325,0)       (201.143,0)       (12.301,0)       (1.519,0)         Cash provided (used) by financing activities:       11.407,0       237.154,0       85.720,0       -       -         Additions to long-term debt       (11.407,0)       (237.154,0)       (85.720,0)       -       -       -       -       (4.986,0)         (Decrease) increase in notes payable       -	Proceeds from divesture	_	4.054.0		_	_
Cash provided (used) by financing activities:(11.407,0237.154,085.720,0-Additions to long-term debt11.407,0237.154,085.720,0Reductions in long-term debt including current portion(13.890,0)(96.581,0)(Decrease) increase in notes payableProceeds from exercise of options and other stock3.446,081.928,0108.832,0issuances3.446,081.928,0108.832,0Repurchase of stockRepurchase of stockCash (used) provided by financing activities963,0222.501,0194.552,0(13.000,0)(14.986,0)Effect of exchange rate changes on cashNet (decrease) increase in cash and equivalents(20.872,0)27.318,0384,0(7.199,0)(956,1)Cash and equivalents, beginning of year27.701,0383,0-12.090,013.047,0	Cash used by investing activities	(26.437.0)	(196.325.0)	(201.143.0)	(12.301.0)	(1.519.0)
Additions to long-term debt11.407,0237.154,085.720,0Reductions in long-term debt including current portion(13.890,0)(96.581,0)(4.986,0)(Decrease) increase in notes payableProceeds from exercise of options and other stock3.446,081.928,0108.832,0Excess tax benefits from share-based paymentarrangementsRepurchase of stockDividendscommon and preferredCash (used) provided by financing activities963,0222.501,0194.552,0(13.000,0)(14.986,0)Effect of exchange rate changes on cashNet (decrease) increase in cash and equivalents(20.872,0)27.318,0384,0(7.199,0)(956,1)Cash and equivalents, beginning of year27.701,0383,0-12.090,013.047,0Cash and equivalents, ned of year6.829,027.701,0384,04.891,012.090,9	Cash provided (used) by financing activities:	(=====;=;;;;;	(*************	(,_,_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(1=1001,0)	(110,0,0)
Reductions in long-term debt including current portion(13.89),0(96.581,0)(4.986,0)(Decrease) increase in notes payable <t< td=""><td>Additions to long-term debt</td><td>11.407.0</td><td>237.154.0</td><td>85.720.0</td><td>-</td><td>_</td></t<>	Additions to long-term debt	11.407.0	237.154.0	85.720.0	-	_
(Decrease) increase in notes payableProceeds from exercise of options and other stock issuances3.446,081.928,0108.832,0Excess tax benefits from share-based payment arrangementsRepurchase of stockDividendscommon and preferredCash (used) provided by financing activities963,0222.501,0194.552,0(13.000,0)(14.986,0)Effect of exchange rate changes on cashNet (decrease) increase in cash and equivalents(20.872,0)27.318,0384,0(7.199,0)(956,1)Cash and equivalents, beginning of year27.701,0383,0-12.090,013.047,0Cash and equivalents, end of year6.829,027.701,0384,04.891,012.090,9	Reductions in long-term debt including current portion	(13.890.0)	(96.581.0)		_	(4.986.0)
Proceeds from exercise of options and other stock issuances3.446,081.928,0108.832,0-Excess tax benefits from share-based payment arrangementsExcess tax benefits from share-based payment arrangementsBepurchase of stockDividendscommon and preferredCash (used) provided by financing activities963,0222.501,0194.552,0(13.000,0)(14.986,0) </td <td>(Decrease) increase in notes pavable</td> <td>_</td> <td>-</td> <td>-</td> <td>_</td> <td>-</td>	(Decrease) increase in notes pavable	_	-	-	_	-
issuances       3.446,0       81.928,0       108.832,0       -       -         Excess tax benefits from share-based payment arrangements       -       -       -       -       -         Repurchase of stock       -       -       -       -       -       -       -         Dividendscommon and preferred       -       -       -       -       -       -       -       -         Cash (used) provided by financing activities       963,0       222.501,0       194.552,0       (13.000,0)       (14.986,0)         Effect of exchange rate changes on cash       -       -       -       -       -         Net (decrease) increase in cash and equivalents       (20.872,0)       27.318,0       384,0       (7.199,0)       (956,1)         Cash and equivalents, beginning of year       27.701,0       383,0       -       12.090,0       13.047,0         Cash and equivalents, end of year       6.829,0       27.701,0       384,0       4.891,0       12.090,9	Proceeds from exercise of options and other stock					
Excess tax benefits from share-based payment arrangementsRepurchase of stockDividendscommon and preferredCash (used) provided by financing activities963,0222.501,0194.552,0(13.000,0)(14.986,0)Effect of exchange rate changes on cashNet (decrease) increase in cash and equivalents(20.872,0)27.318,0384,0(7.199,0)(956,1)Cash and equivalents, beginning of year27.701,0383,0-12.090,013.047,0Cash and equivalents, end of year6.829,027.701,0384,04.891,012.090,9	issuances	3.446.0	81.928.0	108.832.0	_	-
arrangementsRepurchase of stockDividendscommon and preferred(13.000,0)(10.000,0)Cash (used) provided by financing activities963,0222.501,0194.552,0(13.000,0)(14.986,0)Effect of exchange rate changes on cashNet (decrease) increase in cash and equivalents(20.872,0)27.318,0384,0(7.199,0)(956,1)Cash and equivalents, beginning of year27.701,0383,0-12.090,013.047,0Cash and equivalents, end of year6.829,027.701,0384,04.891,012.090,9	Excess tax benefits from share-based payment			, -		
Repurchase of stock         -	arrangements	_	-	_	_	-
Dividendscommon and preferred         -         -         -         (13.000,0)         (10.000,0)           Cash (used) provided by financing activities         963,0         222.501,0         194.552,0         (13.000,0)         (14.986,0)           Effect of exchange rate changes on cash         -	Repurchase of stock	_	-	_	_	_
Cash (used) provided by financing activities       963,0       222.501,0       194.552,0       (13.000,0)       (14.986,0)         Effect of exchange rate changes on cash       -       -       -       -       -       -         Net (decrease) increase in cash and equivalents       (20.872,0)       27.318,0       384,0       (7.199,0)       (956,1)         Cash and equivalents, beginning of year       27.701,0       383,0       -       12.090,0       13.047,0         Cash and equivalents, end of year       6.829,0       27.701,0       384,0       4.891,0       12.090,9	Dividendscommon and preferred	_	-	_	(13.000,0)	(10.000,0)
Effect of exchange rate changes on cash       - <td>Cash (used) provided by financing activities</td> <td>963.0</td> <td>222.501.0</td> <td>194,552.0</td> <td>(13,000,0)</td> <td>(14,986,0)</td>	Cash (used) provided by financing activities	963.0	222.501.0	194,552.0	(13,000,0)	(14,986,0)
Net (decrease) increase in cash and equivalents         (20.872,0)         27.318,0         384,0         (7.199,0)         (956,1)           Cash and equivalents, beginning of year         27.701,0         383,0         -         12.090,0         13.047,0           Cash and equivalents, end of year         6.829,0         27.701,0         384,0         4.891,0         12.090,9	Effect of exchange rate changes on cash	-	-	-		-
Cash and equivalents, beginning of year         27.701,0         383,0         -         12.090,0         13.047,0           Cash and equivalents, end of year         6.829,0         27.701,0         384,0         4.891,0         12.090,9	Net (decrease) increase in cash and equivalents	(20.872.0)	27.318.0	384.0	(7.199.0)	(956.1)
Cash and equivalents, end of year 6.829,0 27.701,0 384,0 4.891,0 12.090,9	Cash and equivalents, beginning of vear	27.701.0	383,0		12.090.0	13.047.0
	Cash and equivalents, end of year	6.829,0	27.701,0	384,0	4.891,0	12.090,9

## 9.2.5 Appendix 3 - LW – Calculation of Free Cash Flow Using Reformulated Statements

Year ended December 31, 2019			Year ended December 31, 2017		
Method 1:			Method 1:	-	
C = I = OI = change in NOA			C = I = OI = change in NOA		
Operating income, 2019		(14,539,5)	Operating income, 2017		3.276.9
NOA, 2019	378.720,0		NOA, 2017	186.144,9	
	·				
NOA, 2018	385.806,9	(7.086,9)	NOA, 2016	0,0	186.144,9
Free cash flow		(7.452,6)	Free cash flow		(182.868,0)
Method 2:			Method 2:		
Mothod E.			Motilod 2.		
C - I = NFE + Change in NFA + d			C - I = NFE + Change in NFA + d		
		11 414 5			1 172 0
NFE, 2019 NEA 2010	(225 608 0)	11.414,5		(74 599 0)	1.173,9
NEA 2018	(210,186,9)	(15 /21 1)	NEA 2016	(74.000,9)	(74 588 9)
Net dividend 2019	(210.100,9)	(3.446.0)	Net dividend 2017	0,0	(96.451.1)
		(8.448,8)			(30.401,1)
Free cash flow		(7.452,6)	Free cash flow	-	(169.866, 1)
Year ended December 31 2018					
real ended beceniber of, 2010			Year ended December 31, 2016	-	
Method 1:					
C - I = OI - change in NOA			Method 1:	-	
			C - I = OI - change in NOA	-	
Operating income, 2018		(12.663,1)			
NOA, 2018	385.806,9		Operating income, 2016		14.749,0
			NOA, 2016	33.147,0	
NOA, 2017	186.144,9	199.662,0			
			NOA, 2015	21.739,0	11.408,0
		(010,005,0)			
Free cash flow		(212.325,0)			0.044.0
			Free cash flow		3.341,0
Method 2:			Mothod 2:		
C - I = NFE + Change III NFA + d					
NEE 2018		5 107 0	C - I = NFE + Change III NFA + d		
NFA 2018	(210 186 9)	5.197,9	NEE 2016	-	539.0
NFA 2017	(74 588 9)	(135 598 0)	NFA 2016	4 890 0	000,0
Net dividend, 2018	(	(81.929,0)	NFA, 2015	12.091.0	(7.201.0)
		(,-,	.,		(
			Net dividend, 2010		3.321,0
Free cash flow		(212.329,0)			
			Free cash flow		3.341,0

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## 9.3 LW – CALCULATION OF RATIOS

	2019	2018	2017	2016	2015	2014
Average NOA	382,263.5	285,974.5	103,146.0	15,944.5	12,288.6	6,419.1
Average NFA	-217,897.5	-142,388.0	-34,849.5	8,490.5	10,049.5	4,004.0
Average CSE	164,366.0	143,586.5	68,296.5	24,435.0	22,338.0	10,423.0
Sales	419,600.0	273,377.0	104,186.0	0.0	0.0	0.0
Core operating income	21,597.0	15,391.0	8,901.0	15,050.0	13,313.4	56,820.2
Unusual items	36,136.0	28,055.0	5,004.0	300.0	827.0	0.0
Operating income	-14,539.0	-12,664.0	3,897.0	14,750.0	12,486.4	56,820.2
Comprehensive income	-25,954.0	-17,862.0	2,723.0	14,211.0	12,984.0	56,697.0
Net financial income (expense)	11,415.0	5,198.0	1,174.0	539.0	-497.6	-123.2
ROCE	-15.79%	-12.44%	3.99%	58.16%	58.13%	543.96%
RNOA	-3.80%	-4.43%	3.78%	92.51%	101.61%	885.18%
NBC	-5.24%	-3.65%	-3.37%	6.35%	-4.95%	-3.08%
PM	-3.46%	-4.63%	3.74%	-	-	-
Core sales PM	5.15%	5.63%	8.54%	-	-	-
ΑΤΟ	1.10	0.96	1.01	0.00	0.00	0.00
FLEV	-132.57%	-99.17%	-51.03%	34.75%	44.99%	38.41%
SPREAD	1.44%	-0.78%	7.15%	86.16%	106.56%	888.26%
Residual earnings						
[ROCEt - Cost of Equity Capitalt]*CSEt						
	2019	2018	2017	2016	2015	2014
Growth rate for NOA (2014-2019)	-1.84%	107.26%	823.78%	71.65%	-8.56%	-
Growth in Sales	53.5%	162.4%	-	-	-	-
Growth in CSE	-13%	57%	345%	5%	14%	-
Growth in comprehensive income	45%	-756%	-81%	9%	-77%	-
Residual earnings (at cost of equity of 10.6%)	-43,413.0	-17,862.0	2,723.0	14,211.0	12,984.0	56,697.0
	2019	2018	2017	2016	2015	2014
Net financial assets (obligations) (NFA/NFO)	-225,608.00	-210,187.00	- 74,589.00	4,890.00	12,091.00	8,007.90
Total shareholders' equity - EK	153,112.00	175,620.00	111,553.00	25,040.00	23,830.00	20,846.00
FGEAR	-147%	-120%	-67%	20%	51%	38%

## 9.4 NORMALISED RISK FREE RATE

Denmark Government bond	www.sta		
Units: per cent per annum	- 		
-			
Denmark	1989	9.80%	
	1990	10.70%	
Source: OECD.	1991	9.60%	
	1992	9.50%	
	1993	7.10%	
	1994	7.40%	
	1995	7.60%	
	1996	6.00%	
	1997	5.10%	
	1998	4.60%	
	1999	4.30%	
	2000	5.50%	
	2001	4.70%	
	2002	4.60%	
	2003	4.30%	
	2004	4.30%	
	2005	3.40%	
	2006	3.80%	
	2007	4.30%	
	2008	4.30%	
	2009	3.60%	
	2010	2.90%	
	2011	2.70%	
	2012	1.40%	
	2013	1.70%	
	2014	1.30%	
	2015	0.70%	
	2016	0.30%	
	2017	0.50%	
	2018	0.50%	
	2019	0.10%	

Consumer price index (2015=100) by unit, commodity group and time		www.statbank.dk/PRIS111
Consumer price index, total		% change (Inflation)
2015M01	98.8	-1.20%
2015M02	99.8	-0.20%
2015M03	100.2	0.20%
2015M04	100.3	0.30%
2015M05	100.4	0.40%
2015M06	100.3	0.30%
2015M07	100.2	0.20%
2015M08	100	0.00%
2015M09	100.2	0.20%
2015M10	100.1	0.10%
2015M11	99.9	-0.10%
2015M12	99.8	-0.20%
2016M01	99.4	-0.60%
2016M02	100.1	0.10%
2016M03	100.2	0.20%
2016M04	100.3	0.30%
2016M05	100.5	0.50%
2016M06	100.6	0.60%
2016M07	100.5	0.50%
2016M08	100.2	0.20%
2016M09	100.2	0.20%
2016M10	100.4	0.40%
2016M11	100.3	0.30%
2016M12	100.3	0.30%
2017M01	100.3	0.30%
2017M02	101.1	1.10%
2017M03	101.2	1.20%
2017M04	101.4	1.40%
2017M05	101.3	1.30%
201/M06	101.2	1.20%
2017M07	102	2.00%
2017M08	101.7	1.70%
2017/009	101.8	1.80%
2017/010	101.9	1.90%
2017/011	101.0	1.00%
2018M01	101.5	1.00%
2018M01	101 7	1.00%
2018M03	101.7	1.70%
2018M04	102.2	2.20%
2018M05	102.4	2.40%
2018M06	102.3	2.30%
2018M07	103.1	3.10%
2018M08	102.7	2.70%
2018M09	102.4	2.40%
2018M10	102.7	2.70%
2018M11	102.4	2.40%
2018M12	102.1	2.10%
2019M01	102.3	2.30%
2019M02	102.8	2.80%
2019M03	102.9	2.90%
2019M04	103.2	3.20%
2019M05	103.1	3.10%
2019M06	102.9	2.90%
2019M07	103.5	3.50%
2019M08	103.1	3.10%
2019M09	102.9	2.90%
2019M10	103.3	3.30%
2019M11	103.1	3.10%
2019M12	102.9	2.90%
2020M01	103	3.00%
2020M02	103.6	3.60%
2020/003	103.3	3.30%
2020/004	103.2	3.20%
2020/000	103.1	3.10%
202019100	105.2	3.20%

## 9.5 DCF WORKINGS

	Workings:						
		31/12/2019	31/12/2018	31/12/2017	31/12/2016	31/12/2015	31/12/2014
1.	EBIT	32,482	24,833	12,599	19,442	17,459	53,197
	% growth	31%	97%	-35%	11%	-67%	
	Average	7.38%					
2.	Taxes are assumed to	o be constant					
3.	Capex is assumed to	constant					
		31/12/2019	31/12/2018	31/12/2017	31/12/2016	31/12/2015	31/12/2014
	PPE	3,713	4,305	878	857	597	773
	Intangible Asset	212,936	225,045	94,922	12,482	1,254	-
	Change	- 12,701	133,550	82,461	11,488	1,078	773
	Average	36,108.17					
4.	Changes in NWC						
		31/12/2019	31/12/2018	31/12/2017	31/12/2016	31/12/2015	31/12/2014
	Net operating assets						
	(NOA):	378,720	385,807	186,142	20,150	11,739	12,838
	-PPE, net	3,713	4,305	878	857	597	773
	-Intangible Asset	212,936	225,045	94,922	12,482	1,254	-
	-Deferred taxes						
	assets	10,900	8,430	364	4,285	3,307	1,938
	-Deferred income						
	taxes	55,491	59,432	25,125	2,613	319	-
	+Total financial						
	assets	4,731	26,334 -	138	4,890	12,091	13,048
		100,411	114,929	64,715	4,803	18,353	23,175
	Change	- 14,518	50,214	59,912 -	13,550 -	4,822	23,175