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Valuation of Oslo Klatresenter AS

A fundamental analysis of a Norwegian climbing gym company

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Master thesis, Economics and Business Administration,
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NORWEGIAN SCHOOL OF ECONOMICS

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Abstract

The main goal of this master thesis is to estimate the intrinsic value of one share in Oslo Klatresenter AS as of the 2nd of May 2021. The fundamental valuation technique of adjusted present value was selected as the preferred valuation method. In addition, a relative valuation was performed to supplement the primary fundamental valuation.

This thesis found that the climbing gym market in Oslo is likely to enjoy a significant growth rate in the coming years, with a forecasted compound annual growth rate (CAGR) in sales volume of 6,76% from 2019 to 2033. From there, the market growth rate is assumed to have reached a steady-state of 3,50%. The period, however, starts with a reduced market size in 2020 and an expected low growth rate from 2020 to 2021 because of the Covid-19 pandemic. Based on this and an assumed new competing climbing gym opening at the beginning of 2026, OKS AS revenue is forecasted to grow with a CAGR of 4,60% from 2019 to 2033. From there, OKS AS' revenue is expected to have a steady-state growth rate of 3,50%. Furthermore, OKS AS' return on invested capital (ROIC) is expected to fluctuate between 13,33% and 25,25% in the period 2022 to 2032, before it stabilises at 24,97% in 2033. Lastly, OKS AS' adjusted unlevered cost of equity is calculated to be 10,64% (this number includes a small stock premium).

Based on the presented factors, this thesis estimated OKS AS' value per share on the 2nd of May 2021 to be NOK 5 638,94, giving an equity value of NOK 59 659 958. For the recommended trading strategy, a margin of +/- 15% is used because of the many assumptions that have been taken in the estimation process and the illiquidity of the OKS AS shares. Thus, this thesis recommends a buy strategy if the share price is less than NOK 4 793,10, a hold strategy if the share price is between NOK 4 793,10 and NOK 6 484,78, and a sell strategy if the share price is higher than NOK 6 484,78.

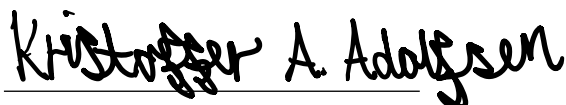
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This master thesis was written as the concluding part of my Master of Science in Economics and Business Administration at the Norwegian School of Economics (NHH). My interest in climbing and aspirations about potentially opening an obstacle and ninja gym motivated me to choose this topic. I have learned extremely much during the process that I believe will be highly beneficial in my future endeavours.

I want to offer my sincere gratitude to Dr. Tommy Stamland for his many advice, quick responses, and support this semester. He has truly understood my situation of training as a professional OCR athlete at the same time as writing the master thesis and the challenges this entails. His support has been invaluable in producing a better thesis.

Lastly, I would like to thank my family and friends for understanding my limited time this semester and adopting their time to fit my schedule. Their support truly helps me stay motivated in all my endeavours.

Bergen, 1st of June 2021

A handwritten signature in black ink that reads "Kristoffer A. Adolfsen". The signature is written in a cursive, slightly slanted style. Below the signature, there is a horizontal line.

Kristoffer Arne Adolfsen

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1. Introduction

Before starting the valuation process, this chapter will discuss the author's motivation for this master thesis and choice of company. After that, the objective of this thesis will be presented. Finally, this chapter ends by describing the structure of the rest of the thesis.

1.1 Motivation and choice of company

Growing up, I have always known that I someday would like to start a business of my own. What kind of business this would be have gradually changed and formed throughout the years, but a part of me has for a long time known that I would like it to have something to do with sports. In the later years, this has turned more specific with the thought of might opening an obstacle/ninja gym in Oslo. By competing and training as an obstacle course race (OCR) athlete next to the studies, I have realised there is a lack of these types of gyms in Norway. Therefore, it seemed interesting to do a valuation of a company in the industry, which would give me a deeper understanding of the market for an obstacle/ninja gym in Oslo.

Unfortunately, I soon realised that there is currently too little information around the Scandinavian and Norwegian OCR and obstacle/ninja gym market for the demand of a master thesis. Consequently, I turned my thoughts to the climbing gym market. Climbing gyms are maybe the fitness choice that is closest to obstacle/ninja gyms. In fact, many OCR athletes, myself included, do a lot of their training in climbing gyms. Thus, valuing a climbing gym seemed like the best fit for my desire to get a deeper understanding of the potential market for an obstacle/ninja gym while at the same time finding enough market information for the demand of the master thesis. Then the only question left was which climbing gym to value. This choice quickly fell on Oslo Klatresenter AS because it is located in Oslo, and it is my go-to climbing gym in Oslo.

1.2 The objective of the thesis

This master thesis aims to soundly estimate the intrinsic value of Oslo Klatresenter AS' shareholder equity, and thus value per share, as of the 2nd of May 2021. Consequently, the estimated intrinsic value is based on all information available to the author on the 2nd of May 2021. It is important to stress that the valuation is based on expectations and assumptions about

the future. These expectations and assumptions can significantly change after the 2nd of May 2021, making this valuation less precise or obsolete. Nevertheless, this thesis' goal is to answer the following question:

“What is the intrinsic value of one share in Oslo Klatresenter AS the 2nd of May 2021?”

1.3 The structure of the thesis

This thesis can roughly be divided into two parts, where the first part is information gathering in chapter 2, 3, 4, and 5, and the second part is chapter 6, 7, 8, 9, and 10 that uses insight from the first part in the valuation process of OKS AS.

Chapter two presents the climbing gym industry, Oslo Klatresenter AS (OKS AS), and two other companies in the Norwegian climbing gym market. Then chapter 3 describes the different theoretical theories and models that can be used to value OKS AS. Following this, chapter 4 computes external and internal strategic analyses of OKS AS and its market through a PESTEL-, Porter's five forces-, VRIO- and SWOT analysis. To complete the first part, chapter 5 conducts a historical financial statements analysis of OKS AS and compares OKS AS historical performance with the historical performance of some of its peers.

Then chapter 6 uses the insight gained from the first part to forecast OKS AS future performance. After that, chapter 7 calculates OKS AS unlevered cost of equity. Based on the forecasted future performance and unlevered cost of equity, chapter 8 completes an adjusted present value (APV) discounted cash flow (DCF) valuation of OKS AS. Following this, chapter 9 computes some market-based valuations and a weighted market-based valuation of OKS AS. Lastly, chapter 10 concludes this thesis with a summary of the previous chapters and a trading recommendation for the shares in OKS AS.

2. The climbing gym industry and Oslo Klatresenter AS

To determine the equity value, and thus the fair share price, of Oslo Klatresenter AS, it is first essential to understand the climbing gym industry and precisely what Oslo Klatresenter AS does. Therefore, this chapter will first describe climbing and how the climbing industry is international. Thereafter, it will take a closer look at the climbing industry in Norway and Oslo. Following this, Oslo Klatresenter AS will be presented with more depth. Lastly, the chapter ends with looking at significant competitors to Oslo Klatresenter AS.

2.1 The climbing gym industry

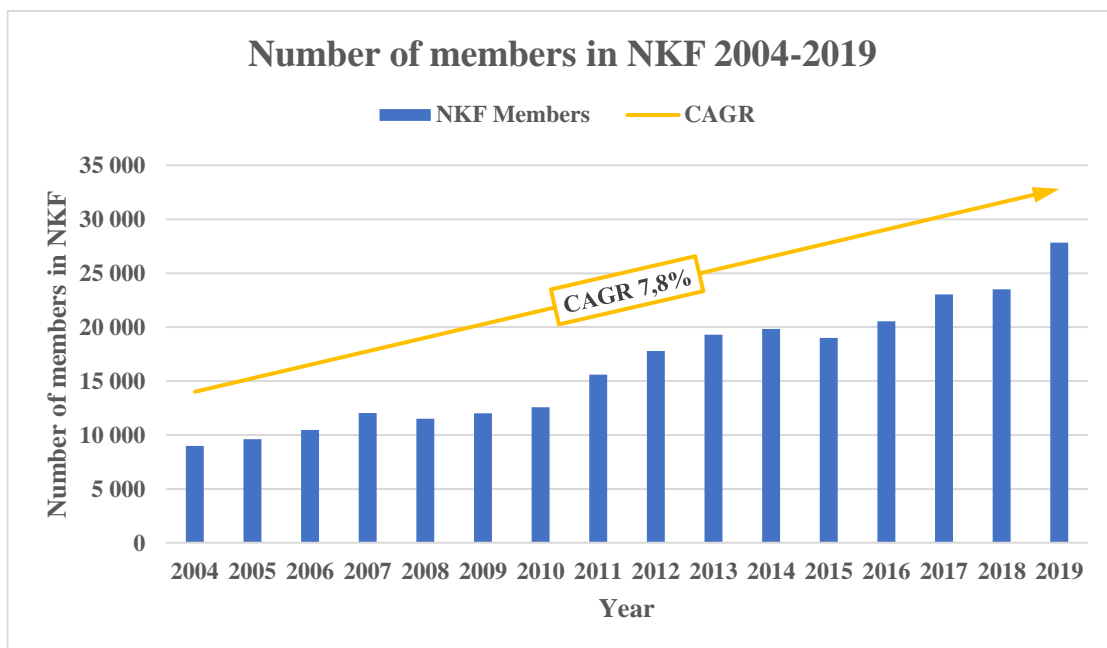
It is first important to understand what this thesis defines as climbing. Climbing, or rock climbing, is a sport where the participating persons (the climbers) are trying to climb up a rock, mountain, or wall. These different surfaces can vary in steepness from 180 degrees “roof” climbing to less than 90 degrees “slab” climbing.

The indoor climbing gym industry offers its customers artificial walls and grips to climb on as a supplement or substitute to climbing on natural rock outside in nature. In climbing, there are a few different disciplines. For this thesis, however, it is only necessary to know about the three disciplines that together define sport-climbing: (1) bouldering, (2) lead/top-rope climbing, and (3) speed climbing. These are the climbing disciplines that generally can be found in a climbing gym. Some gyms specialise in only one of them, while other gyms may have walls for all three disciplines. Bouldering is climbing at lower walls without any rope. As a safety measure, the climbers fall on a shock-absorbing mattress. Lead/top-rope climbing is climbing on higher walls where the climber is secured in a rope. For top-rope, it is also possible to be secured in an auto-belay. Lastly, speed-climbing is a standardised route where the climber is secured in an auto-belay, and the goal is to reach the top as fast as possible. For bouldering and lead/top-rope climbing, the goal is just to reach the top (Batuev & Robinson, 2019; Hatch & Leonardon, 2020).

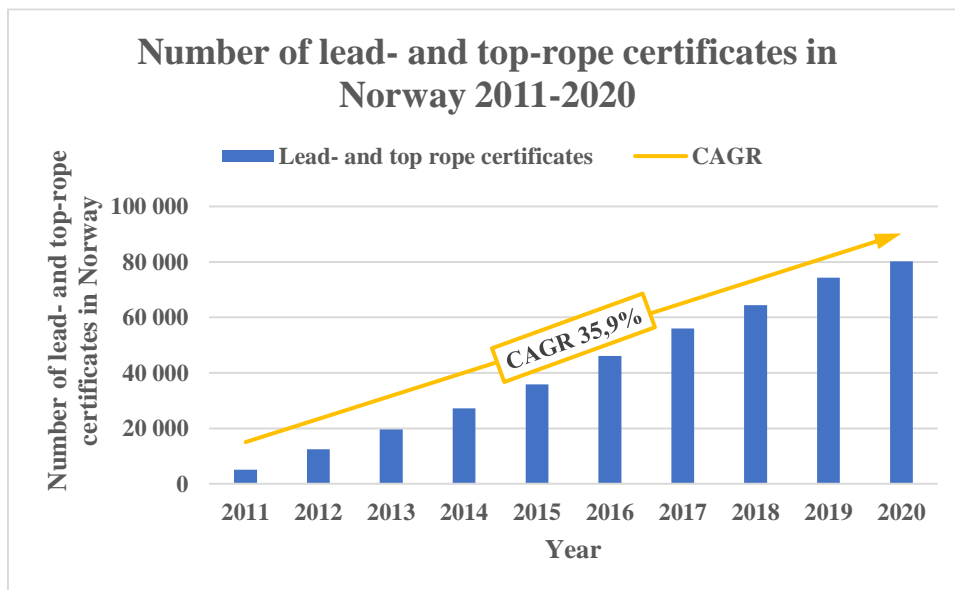
Climbing is currently a growing sport, and in 2019 it was estimated that there were 44,5 million climbers in the world (International Federation of Sport Climbing, 2017, 2020; Lutter et al., 2020). Given that climbing is an activity the participants must be physically present at, the indoor climbing gyms mainly cater to the local climbers.

2.2 Climbing in Norway and Oslo

The growth in climbing has also taken place in Norway. From 2004 to 2019, the number of members in The Norwegian Climbing Federation (NKF) grew with a compound annual growth rate (CAGR) of 7,82%. This growth represents an increase from 9 001 members to 27 831 members, as illustrated in graph 1. In addition to this growth, graph 2 shows that Norway has had significant growth in the number of lead- and top-rope belaying certificates from 2011 to 2020, growing with a CAGR of 35,94%. The fact that there are more belaying certificates (80 266) than NKF members indicates that there also has been a growth in the number of climbers that are not registered in NKF. This number is probably even larger because some climbers only do bouldering and therefore do not need a belaying certificate. Furthermore, from 2018 to 2019, NKF was the second-fastest growing sport in The Norwegian Olympic and Paralympic Committee and Confederation of Sports (NIF) (Norges Klatreforbund, n.d.).



Graph 1: Number of members in The Norwegian Climbing Federation (NKF) from 2004 to 2019. Source: NKF, n.d.



Graph 2: Number of lead- and top-rope belaying certificates in Norway from 2011 to 2020. Source: NKF, n.d.

There are considerable differences in sport climbing's growth rate between the different Norwegian counties. However, they were all positive from 2018 to 2019, where Oslo had the second-lowest growth rate of just under 10%. With this growth, 0,43% of Oslo's population were members of a climbing club at the end of 2019. This was a bit under the Norwegian county average of 0,52% (NKF, 2021).

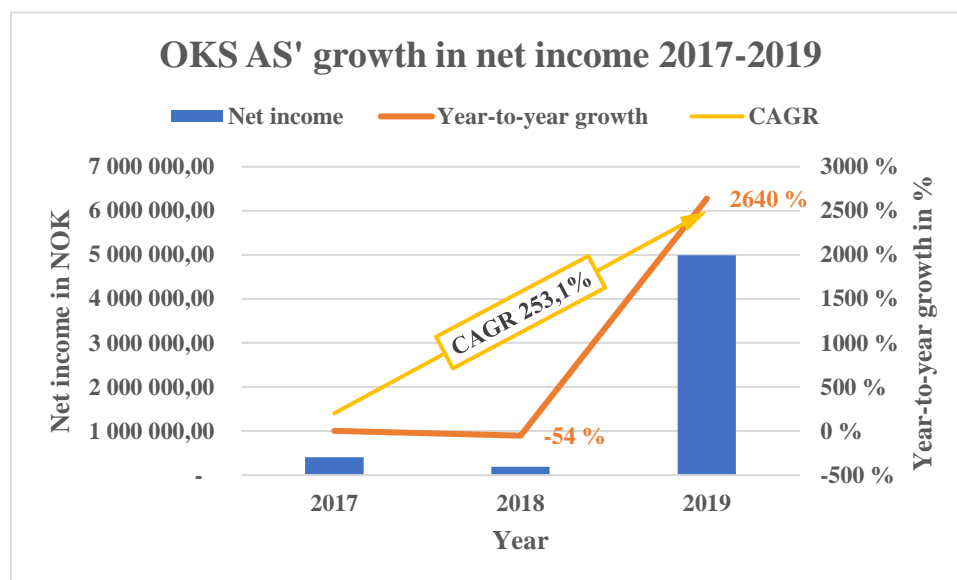
Local climbing gyms only compete against other climbing gyms within a reasonable distance because they only can offer their services to people physically present in the area. The industry in Oslo consists of a few large climbing gyms and a few smaller ones. The two largest players are Oslo Klatresenter AS and Klatreverket AS (Klatreverket, n.d.-a, n.d.-e; Klatreverket AS, 2020; Oslo Klatresenter AS, 2020). In addition to these large players, Kolsås Klatreklubb is a middle large player with Vulkan Klatresenter (Kolsås Klatreklubb, 2020; Vulkan Klatresenter, n.d.). On the smaller side there are individual climbing walls or rooms at BIF Klatring, Athletica Blindern and Friluftshuset Sjørenga (BIF Klatring, n.d.; Den Norske Turistforeningen, n.d.; Studentsamskipnaden SiO, n.d.). While there are a few different options for indoor climbing in Oslo, the fact that there only are three medium- to large players can indicate that it currently is an oligopoly market in Oslo. However, this thesis considers the market a short way from turning to monopolistic competition because of the relatively low entry costs.

2.3 Oslo Klatresenter AS

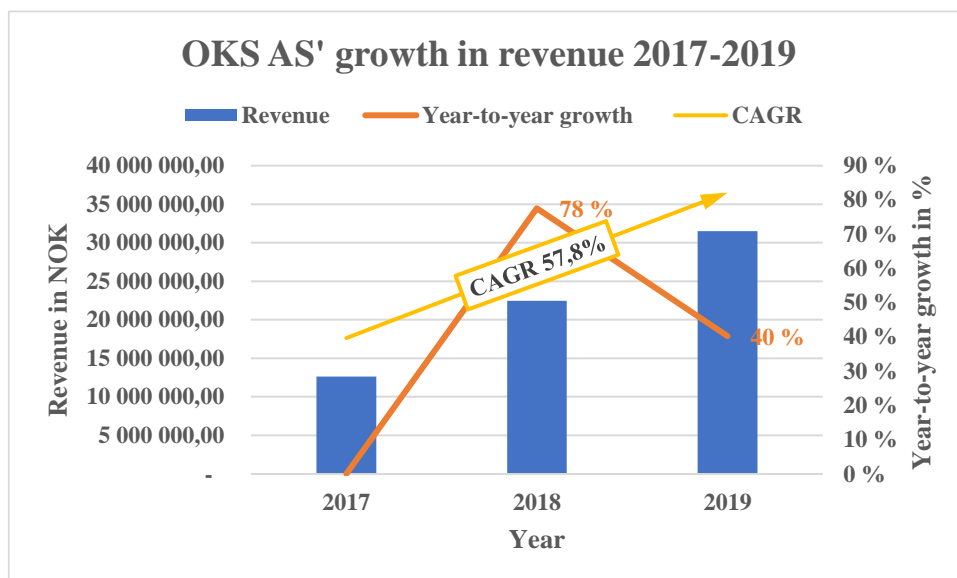
Oslo Klatresenter AS (OKS AS) is a privately owned stock company that owns one sport-climbing gym located at Skullerud, Oslo. The company was established in 2015, and the gym opened in 2017. With its 3 250m² walls for lead-, top-rope- and auto-belay climbing and its 1100 m² wall for bouldering, Oslo Klatresenter (OKS) is the biggest climbing gym in Oslo (Hagen, 2017; Tjelmeland Friksjon, n.d.).

The gym's focus is bouldering and lead- and top-rope climbing. In addition to the climbing, OKS has a small elevation park with a few obstacles, a cafeteria, and a small climbing shop. Furthermore, the gym provides climbing courses, rent out equipment to customers, and from time to time, arrange local and national climbing competitions (Oslo Klatresenter, n.d.-a).

Graph 3 shows that OKS AS net income has grown from NOK 400 504 in 2017 to NOK 4 992 567 in 2019, giving a CAGR of 253,07%. From graphs 3 and 4, it seems like it has taken OKS a couple of years to grow its customer base, resulting in what seems like a tremendous growth in net income of 2 640% from 2018 to 2019. However, the revenue CAGR from 2017 to 2019 was 57,80% (Oslo Klatresenter AS, 2016, 2017, 2018, 2019, 2020).



Graph 3: OKS AS' growth in net income from 2017 to 2019. Source: OKS AS' annual reports 2017 to 2019.



Graph 4: OKS AS' growth in revenue from 2017 to 2019. Source: OKS AS' annual reports 2017 to 2019.

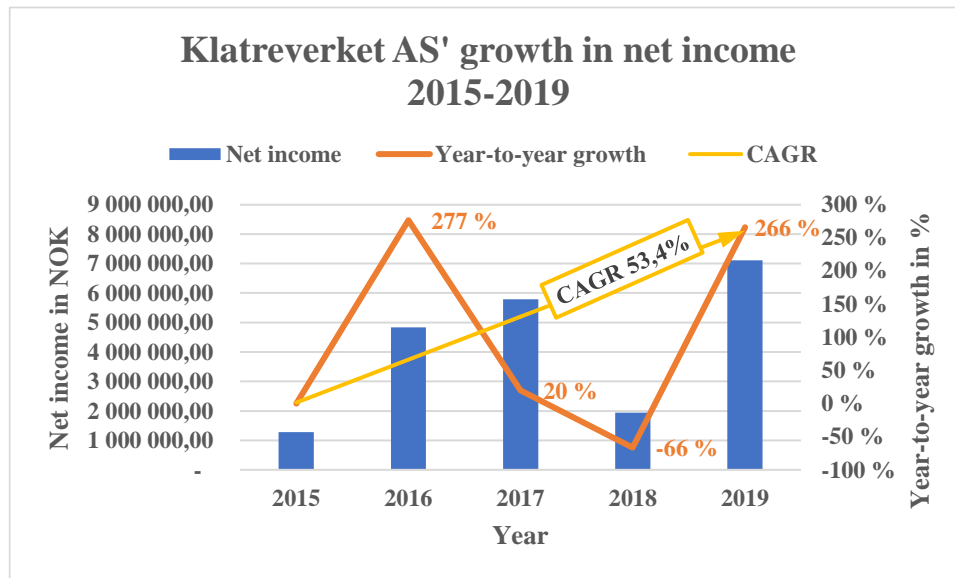
2.4 Other significant players

As presented earlier, there are a few different climbing gyms and walls in Oslo, but the only large players are Oslo Klatresenter AS and Klatreverket AS. Thus, Klatreverket AS is the most comparable company to OKS AS. However, for analysing purposes, one ought to compare with more than one company. Therefore, this thesis will also include Grip Leangen AS in the valuation process. It is worth mentioning that there exist more climbing gyms in Norway that could have been included but have not due to different reasons. A couple of examples are Bergen Klatreklubb that does not operate as a commercial gym, and Bergen Klatresenter AS that first opened in 2019.

2.4.1 Klatreverket AS

Klatreverket AS is a privately owned stock company that was established in 2006 as Klatresjappa AS (Proff, n.d.-a). In 2018, Klatresjappa AS changed name to Klatreverket AS after having merged with the two daughter companies Klatreverket AS and Buldreverket AS (Brønnøysundregistrene, n.d.-b). Today Klatreverket AS owns two different climbing gyms in Oslo, and it is also the mother company of a company that runs a climbing gym in Drammen (Klatreverket, n.d.-b; Proff, n.d.-a). The two gyms in Oslo are Klatreverket Thorsov and Buldreverket Bryn. Klatreverket Thorsov offers both bouldering and lead- and top-rope climbing, while Buldreverket Bryn only offers bouldering. Both of these gyms have a small

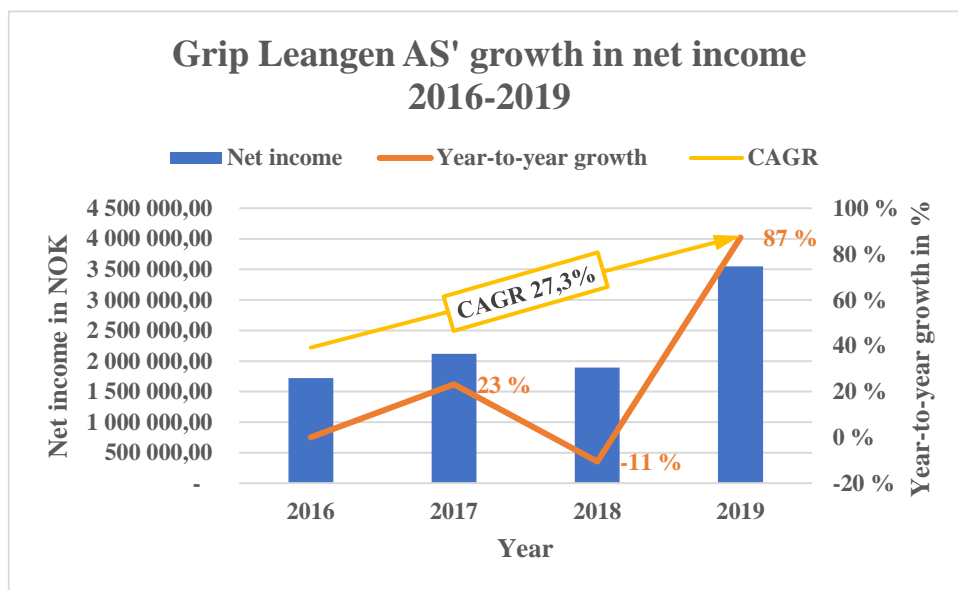
climbing shop in their reception area (Klatreverket, n.d.-a, n.d.-e). From graph 5, one can see that Klatreverket AS' (Klatresjappa AS before 2018) net income has fluctuated a little from 2015 to 2019, but overall it has a growing trend with a CAGR of 53,44% (Klatreverket AS, 2016, 2017, 2018, 2019, 2020). The negative growth in 2018 is most likely because of the competitor OKS AS establishing itself in the market.



Graph 5: Klatreverket AS' growth in net income from 2015 to 2019. Source: Klatreverket AS' annual reports 2015 to 2019.

2.4.2 Grip Leangen AS

Grip Leangen AS is a privately owned stock company that operates a bouldering gym located in Trondheim. While the gym opened in 2013, the company was not established as a stock company before 2016 (Grip, n.d.; Proff, n.d.-c). Furthermore, Grip Leangen AS is now the daughter company of Trondheim Klatresenter Holding AS, and it has three sister companies (Proff, n.d.-c). Like the gyms mentioned above, Grip Leangen has a small climbing shop in the reception area (Grip, n.d.). Graph 6 shows that Grip Leangen AS has had a growing trend in net income from 2016 to 2019, with a CAGR of 27,34%.



Graph 6: Grip Leangen AS' growth in net income from 2016 to 2019. Source: Grip Leangen AS' annual reports 2016 to 2019.

3. Valuation methods and framework

Multiple different methods can be used to value a company. However, it has been shown that the discounted cash flow (DCF) and the market-based approaches normally gives the most reliable valuations (Kaldestad & Møller, 2017). Therefore, these are the methods that will be discussed in this chapter. First, the different DCF models will be presented. After that, the market-based methods will be presented. Following this comes a discussion on which valuation methods to use on OKS AS. Lastly, the chapter ends by presenting the framework that is used throughout the valuation process of this thesis.

3.1 Discounted cash flow valuation models

There are five different DCF-based valuation models: (1) enterprise DCF, (2) discounted economic profit, (3) adjusted present value, (4) capital cash flow, and (5) equity cash flow. However, capital cash flow and equity cash flow are only recommended when valuing financial institutions (Koller, Goedhart, & Wessels, 2020). Thus, given the nature of Oslo Klatresenter AS, this thesis will only present the three first mentioned models.

3.1.1 Enterprise discounted cash flow

The enterprise DCF model can be seen as a four-step process to value the company's equity and value per share. **Firstly**, the company's activities are valued using the weighted average cost of capital (WACC) to discount the company's free cash flow (FCF). **Secondly**, the non-operating assets are identified and valued. **Thirdly**, the nonequity claims the company owes are identified and valued. **Fourthly**, the enterprise value is found by adding together the value of the company's activities and non-operating assets. Then the company's equity value is determined by subtracting the value of the nonequity claims from the enterprise value. Value per share can then be found by dividing the company's equity value by the number of outstanding undiluted shares (Koller et al., 2020).

This valuation method is highly popular because it uses cash flows instead of accounting-based earnings, and it is also advantageous when valuing a multi-business company. On the downside, it only works best when the company's debt-to-value ratio is relatively stable. It can still estimate the correct results when the company has a changing capital structure, but the calculations become more difficult to do correctly (Koller et al., 2020).

Valuing the company's activities

This step of the enterprise DCF method can be split further up. The valuation starts with reorganising the company's previous financial statements. The accounting statements are reorganised to show the sources of financing, the operating items, and the non-operating items. The income statement is reorganised to show the net operating profit after taxes (NOPAT), which is the revenue minus the depreciation and operating costs. Furthermore, the balance sheet is reorganised to show total funds invested and invested capital (Koller et al., 2020).

Following the reorganising of the financial statements, it is possible to start analysing the historical performance. In this stage, one should focus on the most critical value drivers: FCF, return on invested capital (ROIC), and revenue growth. Based on the historical analysis, it is possible to start forecasting FCF, ROIC, and revenue growth. Knowledge gained from analysing the historical performance is combined with forecasts of the industry and economic trends to build the forecast model. For the first few years, forecasting is done very specifically by forecasting all the line-items in the financial statement. After these first years, because of the growing uncertainty, the forecasting ought to only focus on the company's key value drivers for a few years before using a continuing-value (CV) formula in the end. These three forecasting stages are all discounted with the weighted average cost of capital (WACC) (Koller et al., 2020). Consequently, the value of the company's activities can be found by using formula 1 (Kaldestad & Møller, 2017; Koller et al., 2020):

$$\text{Value of the company's activities} = \sum_{t=1}^{t=n} \frac{FCF_t}{(1 + WACC)^t} + \frac{NOPAT_{n+1} \left(1 - \frac{g}{ROIC}\right)}{WACC - g}$$

Formula 1: Value of the company's activities using Enterprise DCF.

Where the first part of formula 1 represents the value of the more and less specific forecast years, and the second part is the continuing value formula. Furthermore:

- t = time
- n = number of periods
- FCF = free cash flow
- $WACC$ = weighted average cost of capital
- $NOPAT$ = net operating profit after taxes
- g = long – run growth

- *RONIC = return on new invested capital*

To calculate formula 1, one must first calculate the WACC using formula 2:

$$WACC = \frac{D}{D + E} k_d (1 - T_M) + \frac{E}{D + E} k_e$$

Formula 2: Weighted average cost of capital (WACC).

Where:

- *D = debt*
- *E = equity*
- *T_M = the marginal tax rate*
- *k_d = return required by debt holders*
- *k_e = return required by equity holders*

Identifying and valuing the company's non-operating assets

Including to the operating assets, which are driving the company's activities, a company has non-operating assets. Some of the most common of these are excess cash, income from subsidiaries and tradeable securities. Since they do not drive the company's activities, the cash flow from non-operating assets is not included in operating profit or accounting revenue. Consequently, the cash flow from non-operating assets must be valued and discounted by their cost of capital independently (Koller et al., 2020).

Identifying and valuing the company's nonequity claims

The two previous steps calculate the total value of the company's equity and nonequity claims. However, to find the equity value, the nonequity claims must be valued, discounted by their cost of capital, and then removed. There are plenty of potential nonequity claims, but some of the most common are debt, leases, preferred stock, and noncontrolling interests (Koller et al., 2020).

Valuing the company's equity

In this final stage, the company's equity value is determined by first adding together the present value of the company's activities and non-operating assets to find the enterprise value. Then, the present value of the nonequity claims is subtracted from the enterprise value to find the

equity value. The value per share can then be calculated by dividing the equity value by the number of outstanding undiluted shares (Koller et al., 2020).

3.1.2 Discounted economic profit

The discounted economic profit method should give the same company value as the enterprise DCF method. Moreover, the discounted economic profit method can give a deeper understanding of how and when a company creates value. However, it has the same weakness as the enterprise DCF regarding the company's debt-to-value ratio (Koller et al., 2020).

Like the enterprise DCF, the discounted economic profit method starts with reorganising the company's previous financial statements. From there, the economic profit is calculated, which is a measure of value created in an individually period by the company (Koller et al., 2020):

$$\text{Economic profit} = \text{NOPAT} - (\text{Invested capital} \times \text{WACC})$$

Formula 3: Economic profit.

Where:

- *NOPAT = net operating profit after taxes*
- *WACC = weighted average cost of capital*

Because the value of a company's activities equals the book value of its invested capital summed with the present value of all value it creates in the future, the discounted economic profit can, in its general form, be calculated as followed (Koller et al., 2020):

$$\text{Value of the company's activities}_0 = \text{Invested capital}_0 + \sum_{t=1}^{\infty} \frac{\text{Economic profit}_t}{(1 + \text{WACC})^t}$$

Formula 4: Value of the company's activities using discounted economic profit.

Where:

- *t = time*
- *WACC = weighted average cost of capital*

Once the value of the company's activities has been found, the discounted economic profit model follows the same last three steps as the enterprise DCF model to find the equity value:

(1) identifying and valuing the company's non-operating assets, (2) identifying and valuing the company's nonequity claims, and (3) valuing the company's equity (Koller et al., 2020).

3.1.3 Adjusted present value

Adjusted present value (APV) has the advantage of being a highly flexible method that allows the WACC to change from year to year. Therefore, it is possible to value a company with changing capital structure more easily with this method than with the two previous methods. On the downside, this method has other factors that can be challenging to calculate (Koller et al., 2020).

The APV model works by splitting the value of the company's operations into two parts: "the value of operations as if the company were all-equity financed and the value of tax shields that arise from debt financing" (Koller et al., 2020, p. 199). This gives the following formula:

$$APV = EV \text{ as if } 100\% \text{ equity financed} + PV \text{ of capital structure effects}$$

Formula 5: Adjusted present value.

Where:

- $APV = \text{adjusted present value}$
- $EV = \text{enterprise value}$
- $PV = \text{present value}$

The company's FCF must be discounted by the unlevered cost of equity (k_u) to find the enterprise value part of formula 5. Unfortunately, (k_u) cannot be estimated directly by using market data. To find (k_u) it is possible to assume that the debt-to-value ratio of the company will be managed to a target level. Under this assumption, the value of the operating assets will be tracked by the value of the tax shields. Consequently, the risk connected to tax shields will be equal to the risk connected to the operating assets. Based on this assumption, the following formula holds and can be used to calculate the unlevered cost of equity (Koller et al., 2020):

$$k_u = \frac{E}{E + D} \times k_e + \frac{D}{E + D} \times k_d$$

Formula 6: The unlevered cost of equity.

Where:

- k_u = the unlevered cost of equity
- k_e = the cost of equity
- k_d = the cost of debt
- E = equity
- D = debt

Having formula 6, the enterprise value part of formula 5 can be found through formula 7:

$$EV \text{ as if all equity financed} = \sum_{t=1}^{t=n} \frac{FCF_t}{(1 + k_u)^t} + \frac{FCF_{n+1}}{(k_u - g)}$$

Formula 7: Enterprise value as if the company is all-equity financed.

Where:

- EV = enterprise value
- FCF = future cash flow
- k_u = the unlevered cost of capital
- n = number of periods
- t = time
- g = continuing growth rate

After finding the enterprise value in formula 7, the next step is to calculate the present value of the capital structure effects. The most common of these effects is the tax shield effect (Koller et al., 2020). To find the present value of the tax shields, one can take the corporate tax rate and multiply it with the company's interest payment. Then this number is divided by the appropriate cost of capital, and lastly, all the years are summed together (Berk & DeMarzo, 2017):

$$PV \text{ of tax shield} = \sum_{t=1}^{t=n} \frac{CTR_t \times \text{Interest payment}_t}{(1 + k_u)^t} + \frac{CTR_{n+1} \times \text{Interest payment}_{n+1}}{(k_u - g)}$$

Formula 8: Present value of the tax shield from debt financing.

Where:

- *PV = present value*
- *CTR = corporate tax rate*
- *k_u = the unlevered cost of capital*
- *n = number of periods*
- *t = time*

In addition to the tax shield effect, other capital structure effects can be distress costs and security issuance costs (Koller et al., 2020). However, security issuance costs are only relevant if the company issues securities, and distress costs are challenging to value because they tend only to occur when a firm is near or in financial distress (Berk & DeMarzo, 2017). Nevertheless, if these factors are relevant for the valuation, they are implemented by forecasting their relevant cash flows and discounting them with an appropriate discount rate (Koller et al., 2020).

When all the different present values of capital structure effects have been calculated, the value of the company's activities can be calculated using the APV formula (formula 5). Following this, the equity value of a company is found by using the same last three steps as in the enterprise DCF method: (1) identifying and valuing the company's non-operating assets, (2) identifying and valuing the company's nonequity claims, and (3) valuing the company's equity (Koller et al., 2020).

3.2 Market-based valuation methods

Market-based valuations are indirect valuation methods that use comparable companies' relative pricing to value the desired company. The methods assume that the market has estimated the value of the future cash flows of the comparable companies, and that the relationship between value and factor in these companies also holds for the company in question. Based on these assumptions, it is possible to value the desired company by following a three-step process: (1) find comparable companies to the company that is to be valued, (2) decide which multiples to use and estimate them, and (3) use the estimated multiples to calculate the value of the desired company (Kaldestad & Møller, 2017).

3.2.1 Finding comparable companies

To find comparable companies, it is possible to use companies listed on the stock exchange or other companies that have been bought and thus valued in recent transactions. Whether the comparable companies are listed or not, the most important thing is that they are as similar as possible to the company that is to be valued through their multiples. A few factors that should be considered for this are the size, growth possibilities, location and market, taxes, future investment demands, required rate of return, profitability and strategy (Kaldestad & Møller, 2017). Of course, the most critical factor is that the companies operate within the same industry.

3.2.2 Deciding on and estimating multiples

Several different multiples are possible to use to value a company. They can be divided into three main groups: (1) earnings multiples, (2) balance sheet multiples and (3) other non-financial factors multiples. Whichever multiples are used, it is essential to normalise and correct the relevant factors for differences between the companies. Examples of these differences could be accounting principles, extraordinary posts in the financial statements and cost of debt (Kaldestad & Møller, 2017).

Income statement multiples

Some of the most common income statement multiples are (1) Price/Earnings (P/E), (2) Enterprise Value/Sales (EV/Sales), (3) Enterprise Value/Earnings before interest, tax, depreciation and amortization (EV/EBITDA), (4) Enterprise Value/ Earnings before interest, tax and amortization (EV/EBITA), and (5) Enterprise Value/Earnings before interest and tax (EV/EBIT). These multiples can be calculated as followed (Kaldestad & Møller, 2017):

$$\frac{P}{E} = \frac{\text{Market value of equity}}{\text{Earnings after taxes}}$$

Formula 9: Price/Earnings (P/E) multiple.

$$\frac{EV}{Sales} = \frac{\text{Market value of equity} + \text{Net interest bearing debt}}{Sales}$$

Formula 10: Enterprise value/Sales (EV/Sales) multiple.

$$\frac{EV}{EBITDA} = \frac{\text{Market value of equity} + \text{Net interest bearing debt}}{\text{Earnings before interest, taxes, depreciation and amortization}}$$

Formula 11: Enterprise value/EBITDA (EV/EBITDA) multiple.

$$\frac{EV}{EBITA} = \frac{\text{Market value of equity} + \text{Net interest bearing debt}}{\text{Earnings before interest, taxes and amortization}}$$

Formula 12: Enterprise value/EBITA (EV/EBITA) multiple.

$$\frac{EV}{EBIT} = \frac{\text{Market value of equity} + \text{Net interest bearing debt}}{\text{Earnings before interest and taxes}}$$

Formula 13: Enterprise value/EBIT (EV/EBIT) multiple.

There are advantages and disadvantages connected with the use of all the multiples. P/E is easy to use and can be a reasonable estimate for companies that have reached a steady growth rate. On the downside, it does not consider differences in capital structure or capital demand. EV/Sales make it possible to compare companies that have a deficit. However, it assumes that the companies have similar margins. It can give extremely wrong estimates if this does not hold. EV/EBITDA is widely used and makes it possible to compare the underlying operations and companies with deficits. Unfortunately, it ignores differences in risk and capital expenditures (Kaldestad & Møller, 2017). EV/EBITA also makes it possible to compare the underlying operations, and through removing depreciation, it takes future capital expenditures more into consideration. On the other hand, depreciation can be an unreliable predictor of future capital expenditures in some cases, and in these cases, EV/EBITA can be less precise than EV/EBITDA (Koller et al., 2020). Lastly, EV/EBIT also makes it possible to compare the underlying operations and partly takes the capital expenditure into consideration. However, it is vulnerable to differences in accounting practices (Kaldestad & Møller, 2017).

Balance sheet multiples

Two common balance sheet multiples are (1) Price/Book (P/B) and (2) Price/Net asset value (P/NAV) (Kaldestad & Møller, 2017):

$$\frac{P}{B} = \frac{\text{Market value of equity}}{\text{Book value of equity}}$$

Formula 14: Price/Book (P/B) multiple.

$$\frac{P}{NAV} = \frac{\text{Market value of equity}}{\text{Sales value of assets} - \text{Debt}}$$

Formula 15: Price/Net asset value (P/NAV) multiple.

P/B can give an indication about the company's ability to create value, it can be used on companies with a deficit, and it is to a high degree robust against undervalued book values. On the negative side, it is vulnerable to differences in accounting practices, and it is not relevant for companies with many intangible assets. P/NAV can also indicate the company's ability to create value, and it is more reliable than P/B since it uses market values instead of book values. The downside is that there are only a few industries where the market constantly values assets similar to the company's, making this method difficult to use for most industries (Kaldestad & Møller, 2017).

Non-financial factors multiples

Non-financial multiples can be based on numerous different factors. However, they all calculate the multiple by dividing the enterprise value by the factor they want to use. A few examples are dividing the enterprise value by the number of customers, employees, or production volume. The advantages of these multiples are that they are easy to communicate, and they do not need much information from the financial statement. On the negative side, these multiples are just a primitive variant of the EV/Sales method. Thus, they assume that the companies have similar margins in the used factor (Kaldestad & Møller, 2017).

3.2.3 Value the company

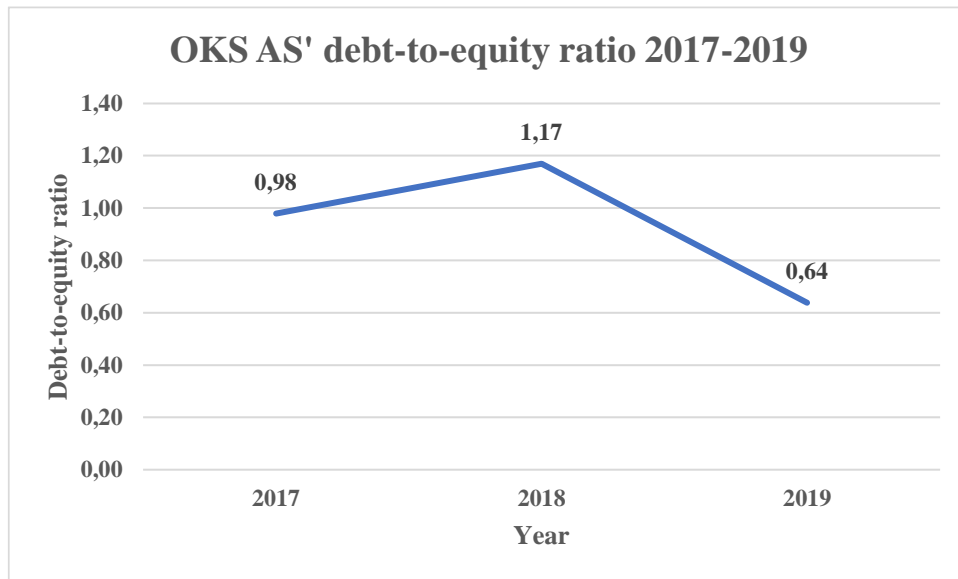
After having decided on companies and estimated the chosen multiples, it is time to calculate the value of the desired company. This is done by multiplying the estimated multiples with their relative factor in the company that is to be valued. Most likely, the different multiples are going to give a bit different answer. Therefore, it is essential to consider the weaknesses and strengths of the multiples used and how they may affect the result in the specific case. Based

on these considerations, one should decide how much emphasis to place on the different multiples and estimate the company's value (Kaldestad & Møller, 2017).

3.3 Choice of valuation method for Oslo Klatresenter AS

Both OKS AS and the climbing gym industry factors must be considered when deciding which valuation method to use. Looking at the debt-to-equity ratio of OKS AS (graph 7), it is clear that the reported capital structure has constantly been changing the last few years (2015 to 2016 was excluded due to being before the gym opened) (Oslo Klatresenter AS, 2018, 2019, 2020). This changing capital structure might be a result of OKS AS being a recently established company, and it may stabilise in the near future. Nevertheless, based on the changing capital structure, the APV model is theoretically preferred above the other DCF valuation models.

Furthermore, OKS AS operates in an industry highly dependent on the location of its customers, and there are no other highly similar companies in the same area listed on the stock exchange. Consequently, the APV model seems better to use than the market-based valuation methods. However, multiples can be used to check if the answers from DCF valuation models are reasonable (Kaldestad & Møller, 2017). Therefore, this thesis has decided to use the APV model as the primary valuation model when valuing OKS AS. In addition to the APV valuation, this thesis will try to find recent transactions of similar companies to calculate market-based valuations. The market-based valuations will be based on income statement and balance sheet multiples.

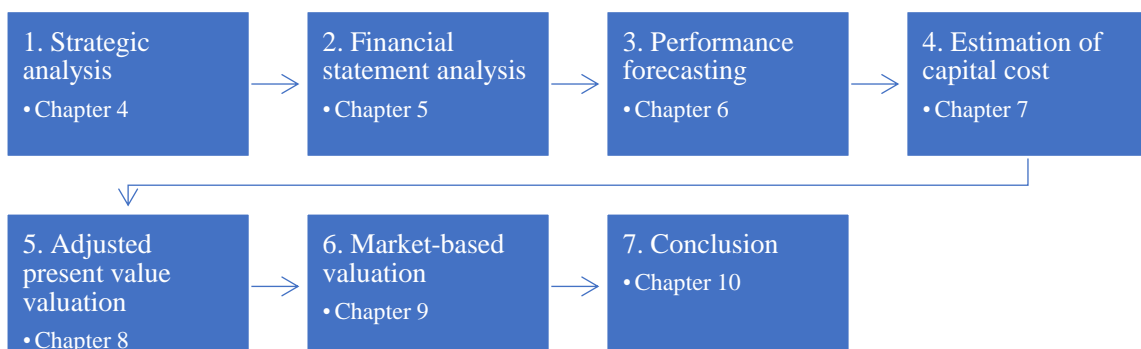


Graph 7: OKS AS' debt-to-equity ratio as reported in the period 2017 to 2019.
Source: OKS AS' annual reports 2017 to 2019.

3.4 Framework for the valuation of Oslo Klatresenter AS

The valuation framework in valuing OKS AS will be based on the APV and market-based valuation methods. The process starts with (1) a strategic analysis of OKS AS, followed by (2) a financial statement analysis. These first two steps are to get a deeper understanding of the company, which is of utmost importance to build a sound valuation. Building on these steps and information about the market comes (3) the performance forecasting. After this comes (4) the estimation of capital costs. Based on information from these first steps, (5) the APV valuation will be done. To reasonable check the APV valuation, the next step is (6) the market-based valuation. With both the valuations being completed, this thesis will end with (7) a conclusion of OKS AS' value. Exhibit 1 shows a visual presentation of the valuation framework:

Exhibit 1: Framework for valuation process of Oslo Klatresenter AS



4. Strategic analysis

The goal of the strategic analysis is to get a better understanding of OKS AS' competitive position. To achieve this goal, the chapter starts by identifying important external factors that may affect the company. First comes a PESTEL (political, economic, social, technological, environmental, and legal) analysis, followed by a Porter's five forces analysis. After that, this chapter will look at important internal factors of the company through a VRIO (valuable, rareness, inimitable and organised) analysis. Based on insight from these three analyses, the chapter will conclude with a SWOT (strengths, weaknesses, opportunities, and threats) analysis.

4.1 PESTEL analysis

A PESTEL analysis is used to understand the external macro-environment of a company. This is done by identifying relevant macro aspects within the six factors: (1) political, (2) economic, (3) social, (4) technological, (5) environmental and (6) legal (Pan, Chen, & Zhan, 2019).

4.1.1 Political factors

It can be argued that there generally are not many international political factors that heavily affects climbing gyms because they are local. Trade wars, for example, could make it more expensive to buy new climbing holds from other countries, but it will likely not affect the demand for the gyms even though they decide not to buy new holds for a while. It could also be argued that regular local or national political factors most likely do not heavily affect climbing gyms. However, suppose local or national political factors were to affect climbing gyms in the future. In that case, it is reasonable to believe that the political factors would promote physical activity and positively affect climbing gyms.

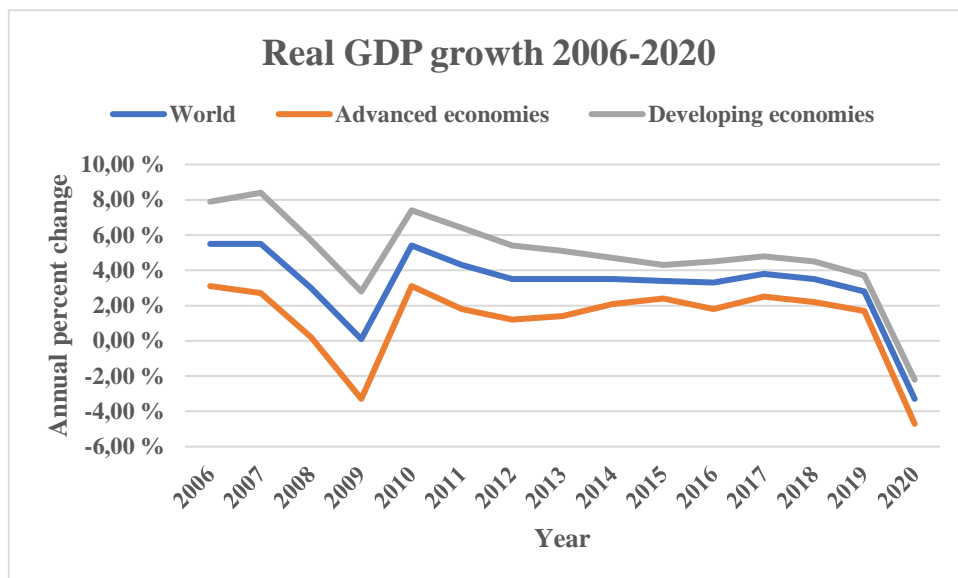
Nevertheless, there is currently one political factor that heavily affects the climbing gym industry negatively: the politics around the Covid-19 pandemic. As of the 2nd of May 2021, the virus has infected more than 152 million people worldwide and claimed more than 3,1 million lives (Sam et al., 2021). As a result of these devastating numbers, the pandemic has caused the governments of multiple countries to in periods lockdown parts of or their entire country and implement social distancing in 2020 and 2021. These measures have been an effort to reduce the rapid spread of the virus. In some of the strictest examples, people have

not been allowed to leave their homes (Kalsi, 2021). Consequently, most industries are largely affected by the virus and the political decisions caused by it. This is especially the case for companies in the service industry that are forced to close their businesses for weeks or months in the lockdown periods and must limit their number of customers when they are open. Thus, the climbing gym industry is largely affected by the pandemic.

4.1.2 Economic factors

Real GDP growth

The Covid-19 pandemic has heavily affected the world economy and the real gross domestic product (GDP) growth. In 2020 the world's real GDP growth was negative 4,4%, with the advanced economies having the biggest backfall of 4,7% (International Monetary Fund, 2021a). There is still uncertainty connected to the pandemic and the future. On one side, approved vaccines are a hopeful sign that the world may soon get back to normal. On the other side, new waves and versions of the virus create doubt and concerns about the future. Nevertheless, the overall hopes are optimistic, and as of January 2021, the International Monetary Fund (IMF) projects a growth in the real GDP of 5,5% in 2021 and 4,2% in 2022 (International Monetary Fund, 2021b).

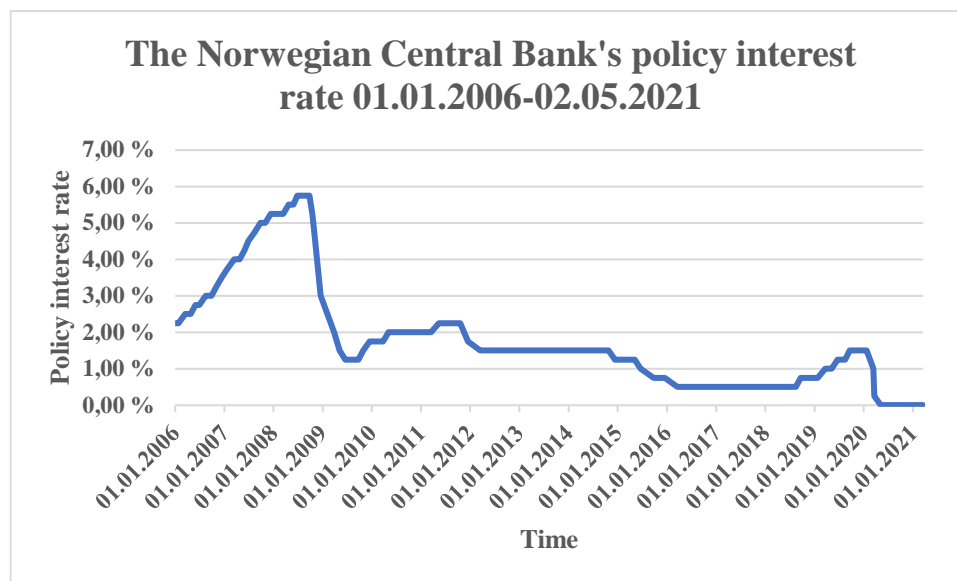


Graph 8: Annual real GDP growth from 2006 to 2020. Source: International Monetary Fund, 2021.

Interest rates

The primary purpose of monetary policies in Norway is to maintain the Norwegian currency's real value. Maintaining the real value is supposed to give stability in prices, which is one factor

that helps the development of welfare, employment and economic growth (Regjeringen, 2019). To maintain the Norwegian currency's real value, the Norwegian Central Bank has been given the responsibility to control the Norwegian monetary policies, and the interest rate is the most important tool (Norges Bank, n.d.-b; Regjeringen, 2019). The Norwegian Central Bank's policy interest rate directly affects the interest rate ordinary banks give to their customers, which again can affect such factors as the currency value, consumption loan demands, and investments. Thus, the Norwegian Central Bank's policy interest rate can indirectly affect customers' consumptions and companies' investments in Norway. For example can lower interest rates both stimulate to higher consumption and higher investments (Norges Bank, n.d.-b). As shown in graph 9, the Norwegian Central Bank's policy interest rate was set down to 0% in May 2020 (Norges Bank, n.d.-a). This is a historically low interest rate, and it is expected to stay at this low level until the second half of 2021 (Holter, 2000; Norges Bank, n.d.-a, 2021).



Graph 9: The Norwegian Central Bank's policy interest rate from the 1st of January 2006 to the 2nd of May 2021. Source: Norges Bank, n.d.-a, 2021.

4.1.3 Social factors

Trends in physical activity

Being physical active have multiple health benefits for both the heart, body and mind. Nevertheless, more than 25% of the world's adult population was insufficiently active in 2020. In the high-income countries, the inactivity levels were twice as high as in the low-income countries (World Health Organization, 2020b). This inactivity combined with overeating has

led to a massive worldwide health problem of obesity and overweight, where more than 2,8 billion die each year as a result of it (World Health Organization, 2020a). Unfortunately, physical activity levels worldwide have not been improved since 2001, even though the health benefits have been scientifically proven. Furthermore, from 2001 to 2016, insufficiently active people in high-income countries increased with 5,2% percentage points, summing up to 36,8%. Inactivity is also pressing among the younger population, with 81% of the world's population aged 11-17 being insufficiently active in 2016 (World Health Organization, 2020b).

Trends in the fitness industry

Within the fitness industry, there are constantly minor or larger changes regarding exercise trends. For the year 2020, online training, wearable technology training (activities where one uses technology such as fitness trackers and smart/GPS watches) and body weight training were the top 3 fitness trends worldwide (Thompson, 2021). This was a change from 2019, where wearable technology, high-intensity interval training and group training topped the list (Thompson, 2019). The change did not come as a surprise given the ongoing global Covid-19 pandemic. Furthermore, the European fitness industry has been consistently growing, with a 72% increase in fitness users from 2009 to 2019 (Batrakoulis, 2019).

As stated in chapter 2, rock climbing is currently a growing sport. However, it is also interesting to look at the trends for bodyweight training because this is training that is closely linked to climbing. Bodyweight training was included on the list of worldwide fitness trends in 2013, and it has been among the top 5 fitness trends in the world since 2017 (Thompson, 2021). Lastly, as a result of climbing's popularity among the world's young population, sport climbing will debut in the Tokyo Olympic Games 2021, and it will return to the Paris Olympic Games 2024 (Olympic Games, 2016, 2020). The increased publicity that the sport of climbing will get from being a part of the Olympic Games is likely to grow the interest of the sport further worldwide.

4.1.4 Technological factors

Although there constantly are developments in the technology behind belaying devices, climbing shoes, harnesses and ropes, there are not many technological factors that hugely affect the climbing industry. The last significant change worth mentioning was the introduction of auto-belay devices, which makes it possible to easily secure oneself while

climbing alone on high walls. However, auto-belays have been around for some years now. The International Federation of Sport Climbing already wanted to start using it in its competitions in 2016 (International Federation of Sport Climbing, 2016).

4.1.5 Environmental factors

Since climbing gyms, in general, provide a body driven fitness service, they are not as affected by environmental factors as other industries. Nevertheless, climate changes are a pressing concern in today's society, and consumer trends go towards choosing and demanding more sustainable products and services (Sesini, Castiglioni, & Lozza, 2020). Therefore, it is reasonable to assume that the sustainability consumer demand also will affect climbing gyms. Consumers might start to demand that the climbing holds and other equipments are produced environmentally friendly and that the equipment is used in a circular economy rather than disposed of once broken.

4.1.6 Legal factors

Climbing is considered an extreme sport, and thus the most concerning legal factors for climbing gyms revolves around safety measures and injuries (Laver, Pengas, & Mei-Dan, 2017). In Norway, the participants bear full responsibility for potential injuries from climbing, provided that the climbing gym operates responsibly. What is considered responsible is covered in the Norwegian (and European) regulation on standards for climbing facilities NS-EN 12572-1:2007. This regulation consists of three main parts: (1) Safety requirements and test methods for ACS with safety points, (2) safety requirements and test methods for boulder walls, and (3) safety requirements and test methods for climbing grips (Kulturdepartementet, 2015).

4.2 Porter's five forces analysis

Porter's five forces model tries to explain how the profitability potential of an industry is affected by the rivalry and distribution of power within the industry. The model consists of (1) threat of new entrants, (2) bargaining power of suppliers, (3) bargaining power of buyers, (4) threat of substitutes, and (5) intensity of rivalry. Figure 1 illustrates the connection between these five forces (Porter, 2008). Threat of new entrants, threat of substitutes and intensity of rivalry helps determine the industry's profitability potential. Supplier power and buyer power

helps determine the distribution of the profitability potential between the industry, the industry's suppliers, and the industry's customers. The higher each of the five factors are, the more hostile and difficult it becomes to run a company within the industry (Bjørnenak, 2019).

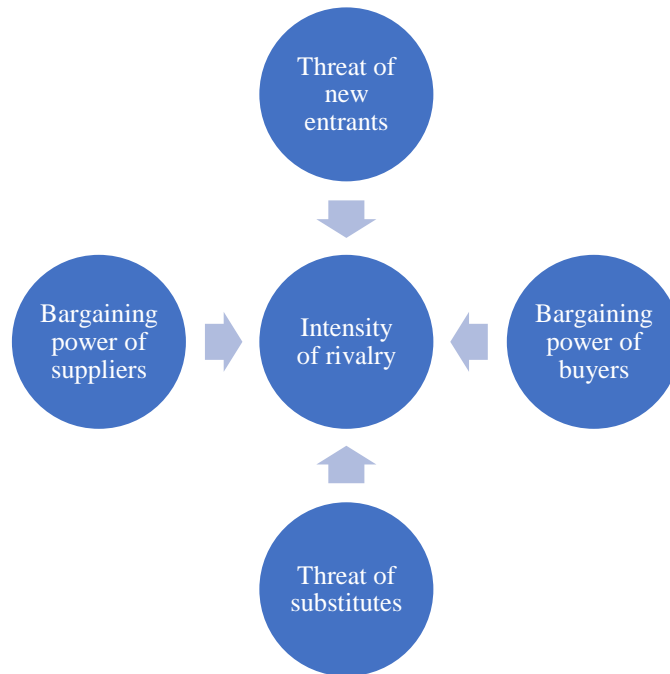


Figure 1: Porter's five forces model. Source: Porter, 2008.

4.2.1 Threat of new entrants

The threat of new entrants depends on the entry barriers for the industry and the retaliation new entrants can expect from the established players of the industry. Low entry barriers and low expected retaliation lead to a high threat of new entrants, while high barriers and high expected retaliation lead to a low threat of new entrants. In general, there are seven major sources of entry barriers: (1) Supply-side economics of scale, (2) demand-side benefits of scale, (3) customer switching costs, (4) capital requirement, (5) incumbency advantages independent of size, (6) unequal access to distribution channels, and (7) restrictive government policies (Porter, 2008).

For the climbing gym industry, most of the barriers mentioned above are low or non-existent. It is possible to assume that larger gyms will enjoy supply-side economics of scale by getting better discounts from climbing equipment suppliers, but these benefits will probably not be very significant. Demand-side benefits of scale are probably non-existent given that a higher demand takes up more of the limited climbing area. There are low customer switching costs as the customers can unsubscribe from their gym membership and easily try other gyms. The

capital requirements are relatively low, which can be seen from OKS AS start equity of NOK 9,2 million (Oslo Klatresenter AS, 2017). Distribution channels do not play a major role within the gym industry. Furthermore, there are not restrictive government policies for climbing gyms other than that they must satisfy the regulation on standards for climbing facilities NS-EN 12572-1:2007. On the other hand, it might be some incumbency advantages connected to location and premises. Especially lead climbing gyms demand high ceiling height, which is most often found in industrial buildings. Suitable locations may be hard to come by since there are a limited number of buildings with ceiling heights of 12 to 20 meters in the urban districts of Oslo.

4.2.2 Bargaining power of suppliers

Powerful suppliers can take higher prices for their products, thus securing a larger part of the potential revenue. These suppliers can typically be characterised as (1) being more concentrated compared to the industry it sells to, (2) not being heavily dependent on the industry they sell to, (3) having high switching costs of switching supplier, (4) having differentiated products, (5) there does not exist substitutes to their products, and (6) being perceived as credible with their threats.

For the climbing gym industry, it is mainly climbing holds, shock-absorbing mattress, climbing ropes, slings, climbing shoes and climbing harnesses that regularly needs to be bought and switched out. As there are multiple suppliers for all these products, this thesis assesses it to be low bargaining power on the supplier side (Ba Rocka, n.d.; Climbmat, n.d.; EPIC TV, n.d.; International Federation of Sport Climbing, 2019; Oliunid, n.d.; UCS, n.d.). However, it is worth mentioning that once a gym has used a specific supplier for shock-absorbing mattresses, that supplier gets higher bargaining power in cases where only smaller areas of the mattresses must be changed.

4.2.3 Bargaining power of buyers

Buyers can be powerful if they have bargaining leverage comparative to the industry participants. This can be the case if there for example are few buyers (Porter, 2008). Since OKS and the other climbing gyms in Oslo mainly deliver a service to many individual customers, this thesis concludes that the buyers generally have a low bargaining power. However, there might also be some larger corporate customers that give memberships at a climbing gym as a benefit to their employees, which could give these customers higher

bargaining power. Nevertheless, the large number of individual customers most likely prevent any of these corporate customers from getting a to high bargaining power. Thus, potential corporate customers likely have low to medium bargaining power.

4.2.4 Threat of substitutes

A substitute is defined as another product or service that provides the buyer with the same or similar function as the original company's product or service. The threat of substitutes can be high if (1) the buyers have low switching costs and (2) if the substitute offers a good price-performance trade-off (Porter, 2008).

For OKS, the closest substitutes will be the other climbing gyms in Oslo and climbing areas within close proximity. Furthermore, it is possible that many of the customers simply look at climbing as a way of exercising and staying healthy. If this is the case, basically all other physical activities can be looked at as substitutes. The most obvious of these substitutes might be regular fitness gyms, but there are also the free options of training in public calisthenic parks or running outside.

OKS has everything from drop-in customers to yearly membership customers. The drop-in customers have low switching costs, as they simply can try out other fitness options. However, it is reasonable to assume that the membership customers also have relatively low switching costs. These customers probably prefer climbing at OKS, but they have already signed an agreement with a specific subscription fee for their subscription period (Oslo Klatresenter, n.d.-b). Thus, price changes will not affect them before the subscription period runs out, and at this point, their switching cost is reduced since they simply can try out other fitness options.

Comparing OKS to Klatreverket Thorsov, the price-performance trade-off is close to zero. OKS have the same or a bit lower prices on all the membership deals as Klatreverket Thorsov, except for yearly membership (yearly membership is also cheaper at OKS if the customer is a member of Oslo Klatreklubb or Kolsås Klatreklubb). The drop-in prices are also cheaper at OKS, except for adults after 4 pm on weekdays and for adults and students on weekends and public holidays. Furthermore, the cost of renting equipment is the same unless one rents the complete equipment package. In that case it is cheaper at Klatreverket Thorsov (Klatreverket, n.d.-c; Oslo Klatresenter, n.d.-b). Buldreverket Bryn also operates at the same prices as Klatreverket Thorsov. However, it can be argued that the price-performance trade-off is worse between OKS and Buldreverket Bryn than between OKS and Klatreverket Thorsov because

Buldreverket Bryn only offers bouldering (Klatreverket, n.d.-d). Climbing outside can offer a good price-performance trade-off once one owns all the necessary equipment. However, it is more limited by the yearly seasons and climbing routes, and the necessary equipment can be an expensive investment. Regarding other exercise options, the price-performance trade-off depends on how much the customers prefer climbing. However, it seems like climbers are not too price-sensitive since the adult monthly membership at SATS starts at NOK 449 compared to OKS' monthly price of NOK 750 (Oslo Klatresenter, n.d.-b; SATS, n.d.-a). Nevertheless, if climbing gyms become too expensive, the price-performance trade-off is likely to become good, and maybe especially good for such free activities as public calisthenic parks.

To conclude the threat of substitutes, it is clear that the current customers prefer climbing and are willing to pay for it. The switching cost between climbing gyms are assumed to be low, and the price-performance trade-off between these are assumed to be close to zero. In addition to other climbing gyms, there exist multiple fitness substitutes if the price for climbing gyms should become too high. Consequently, this thesis considers the threat of substitutes to be high.

4.2.5 Intensity of rivalry

Rivalry between companies hurt profitability and can take many forms. Some of the most familiar forms are price discounting, advertising campaigns, new products and service improvements. The intensity of rivalry can be high if there are (1) many competitors, (2) the competitors are similar in size, (3) the industry growth is slow, (4) the exit barriers are high, (5) the rivals are committed to their business and aspire to be market leaders, or (6) the competitors struggle to read each other's signals (Porter, 2008).

As discussed earlier, there are few players in the climbing gym industry in Oslo, two large players and some smaller ones. Furthermore, this thesis has discussed that climbing is a growing sport in Norway. The fact that the two large players are similar in size can point towards greater rivalry, while the growing market can point in the opposite direction. Furthermore, it is possible to argue that the low equity demand of the industry might reduce the exit barriers because the potential loss is not too high, which will reduce the rivalry. Nevertheless, a lot of the equipment, like walls and shock-absorbing mattresses, are specifically designed to fit the specific gym premises, increasing the sunk costs, exit barriers

and rivalry. The exit barriers will also be higher and increase the rivalry if the climbing gyms are locked into long lease agreements that they cannot get out of.

Unfortunately, it is difficult to assess how committed the different gyms are to their business or how good they are to read each other's signals. However, by looking at OKS', Klatreverket Thorsov's and Buldrevekeret Bryn's current price structures, it seems like they have adapted to each other's prices (Klatreverket, n.d.-c, n.d.-d; Oslo Klatresenter, n.d.-b). In addition to this adaptation, it does not seem like any of them often have discounts. Based on this insight, this thesis concludes that the intensity of rivalry currently is low in the climbing gym industry in Oslo.

4.3 VRIO analysis

There can be significant differences between the profitability of companies within an industry. The reason for this might be that a company has something or do something that the other companies do not have or do not do (Bjørnenak, 2019). Therefore, the purpose of an internal analysis is to understand a company's profitability potential relative to the industry (Kaldestad & Møller, 2017). Using the VRIO framework is one way to do this. The framework tries to find the connection between sustained competitive advantage and the company's resources. Finding this connection is done by analysing the company's resources using the four indicators: (1) value, (2) rareness, (3) imitability and (4) organised. If a resource fulfils these four indicators, it can be looked at as a source of sustained competitive advantage (Barney, 1991; Prodrornos, Dimitrios, Lazaros, & Georgios, 2018).

Value refers to how valuable a resource is. If it is not valuable, it can only be looked at as a competitive disadvantage. To be valuable, the resource must enable the company to use it in a way that improves effectiveness and efficiency. Rareness is how rare the resource is. The resource only gives competitive parity if it is valuable but not rare. If the resource, however, is both valuable and rare, it gives a temporary competitive advantage. Next is imitability, which refers to imperfectly imitable resources. A resource that is valuable, rare and imperfectly imitable gives an unused competitive advantage. Finally, organised refers to that the company must be organised in such a way that it can fully utilise and capitalise on the resource. This final prerequisite will turn a valuable, rare and inimitable resource into a sustained competitive advantage (Barney, 1991; Prodrornos et al., 2018).

4.3.1 Route setters

Route setters are the employees of a climbing gym that creates and puts up the different climbing routes on the walls. Having good route setters makes a climbing gym capable of offering its customers fun, challenging, creative and flowing routes in different styles. They are also crucial for the gym to effectively change routes, which will help keep the customers interested. Thus, one can argue that having good route setters is one of the most critical resources for a climbing gym.

OKS AS have good route setters. However, it is difficult to argue that this is a rare resource. With few climbing gyms in Oslo, there is probably a good selection of route setters to choose between. It is also possible that some of them work in multiple climbing gyms. Consequently, this resource only gives OKS AS competitive parity.

4.3.2 Location and size

OKS is the largest climbing gym in Oslo, and it is located close to the Skullerud subway and bus stop (Hagen, 2017; Tjelmeland Friksjon, n.d.). The location is a little outside downtown Oslo, but it is easy to get there given the nearby public transport stops. Being the biggest gym is valuable as it offers the customers more climbing. Furthermore, it is valuable to be easily accessible to attract customers. As discussed previously in this thesis, it is likely a limited number of buildings suitable for lead climbing gyms in Oslo or easily accessible from Oslo. Thus, this thesis assumes that combining a good location with size is a rare resource. However, even though the resource currently is rare, it should be possible to imitate. In addition to this possible imitation, some customers might be willing to sacrifice size for a shorter distance to the gym. Therefore, the combination of size and location can only be looked at as a temporary competitive advantage.

4.3.3 Magnus Midtbø

Magnus Midtbø is one of the most famous climbers in Norway (Klatring, n.d.). Among his merits are 18 gold medals from the Norwegian championships in climbing and 4th place in the lead climbing world championship 2011 (Grønhaug & Bryhn, 2021). After retiring from competition climbing in 2017, he started a YouTube channel that currently has more than 850 000 subscribers from all around the world (Grønhaug & Bryhn, 2021; YouTube, n.d.). These factors likely make him one of the most influential climbers in Norway. Furthermore,

he is connected to OKS through being a shareholder and board member of OKS AS (Brønnøysundregistrene, 2021; Oslo Klatresenter AS, 2020; Proff, n.d.-b). Consequently, when filming for his YouTube channel, OKS is the climbing gym in Oslo that he uses most frequently. This gives OKS much national and international advertising. Thus, Magnus Midtbø most likely attracts more customers to the gym, making him a valuable and organised resource.

Furthermore, Magnus Midtbø's climbing accomplishment, combined with the number of YouTube followers, makes him a rare resource. This thesis also defines him as an inimitable resource because no climbing gym in Oslo can copy him, and it is hard to imagine any other resource that can be used as a substitute. Consequently, Magnus Midtbø can be looked at as a source of sustained competitive advantage.

4.3.4 Summary VRIO analysis

Exhibit 2: VRIO analysis of Oslo Klatresenter AS.

Resource	Value	Rareness	Imitability	Organised	Result of resource
Route setters	Yes	No	No	Yes	Competitive parity
Location and size	Yes	Yes	No	Yes	Temporary competitive advantage
Magnus Midtbø	Yes	Yes	Yes	Yes	Sustained competitive advantage

4.4 SWOT analysis

A SWOT analysis is a framework that a company can use to strategically analyse its current position and future potential. The analysis has four components: (1) strengths, (2) weaknesses, (3) opportunities and (4) threats. The two first components are internal dimensions of the company, while the two last components are external dimensions (Gürel & Tat, 2017). Consequently, information from the VRIO analysis can be used as insight for the internal dimension, and information from the PESTEL and Porter's five forces analyses can be used as insight for the external dimensions.

4.4.1 Strengths

Strengths are aspects of the company that give it an advantage over its competitors (Gürel & Tat, 2017). As concluded in the VRIO analysis, OKS AS biggest strength is having Magnus Midtbø as a shareholder because of the promotion he gives to the climbing gym. With his background as a professional climber, people might also think that the climbing gym must be good because it is his home gym. Thus, he can be perceived as a quality certification. Based on these factors, Magnus Midtbø gives OKS AS a sustained competitive advantage.

The combination of location and size is also a strength for OKS AS, making it a highly attractive choice for many customers. The size of the gym allows OKS to have its own lift, making it easier and faster to change led routes compared to its competitors. However, the combination of location and size is only a temporary competitive advantage. If another company opens an equally large climbing gym, in for example downtown Oslo, this advantage will disappear.

4.4.2 Weaknesses

Weaknesses are aspects of the company that puts the company at a disadvantage (Gürel & Tat, 2017). OKS AS' biggest weakness lies in its reliance on one gym. The entire company is built around OKS at Skullerud. Consequently, the company will be extremely hard affected if anything happens with the gym, like a fire. Other factors could be construction work that affects the public transport connection to the gym. However, this problem is less likely since there are both subway and bus stops within close proximity. Nevertheless, one can never fully predict what will happen with one building, and it would have been good for OKS AS to be a bit more diversified.

Another potential weakness is that OKS AS do not own the premises where OKS is located (Skullerud Park, n.d., 2015). Since almost a third of its assets are climbing walls and shock-absorbing mattresses designed for the leased premises, OKS AS has reduced bargaining power when renegotiating the lease contract (Oslo Klatresenter AS, 2020). However, depending on the length and clauses in the current contract, this might not be a significant problem. Unfortunately, this thesis does not have access to the current leasing contract.

4.4.3 Opportunities

Opportunities are external elements that can benefit the company (Gürel & Tat, 2017). Firstly, the clearest opportunity for OKS AS is the expected increased publicity that comes with sport climbing being included in the Olympic Games. This publicity is likely to lead to more awareness around the sport's existence and lead more people to their local climbing gyms. Therefore, by actively utilising the free publicity from the Olympic Games, OKS AS can try to capture as much of the new and growing market as possible.

Secondly, there are currently a limited number of climbing gyms in Oslo, and all the large ones are located on the east side. With the current growth trends and increased publicity, it might be an excellent opportunity to open a new climbing centre on the west side of Oslo. Opening a new gym will cannibalise some of its own customers at OKS, but viewed as one, it will likely help grow OKS AS. Furthermore, having two climbing gyms instead of one will make OKS AS a bit more robust to risks such as one gym burning down.

4.4.4 Threats

Threats are external elements that can cause problems for the company (Gürel & Tat, 2017). Currently, the Covid-19 pandemic presents the biggest threat to OKS AS. Gyms in Oslo have been closed for large parts of 2020 and 2021, and this will likely continue to be a problem. However, it is likely that OKS AS will survive this troublesome period based on its, per the 31st of December 2019, cash and deposits of NOK 10,7, and the received NOK 3,3 million compensation from the Norwegian government for lost revenue in 2020 (Brønnøysundregistrene, n.d.-a; Oslo Klatresenter AS, 2020; Skatteetaten, n.d.). Nevertheless, OKS AS revenue is taking an enormous hit, and no one knows how long it will continue. Norway might be able to offer its entire population vaccines for Covid-19 during the summer of 2021, which hopefully means that OKS can get back to operating normal (Folkehelseinstituttet, 2021). It is also worth noticing that there always is a minor threat of potential new epidemics or pandemics in the future and their consequences.

Another threat is connected to the low entry barriers of the climbing gym industry in Oslo. The low entry barriers make it easier for potential competitors to open new gyms. Although opening a new gym on the west side of Oslo can be seen as a potential opportunity, it is also a threat that someone else does it before OKS AS. As discussed under opportunities, a

climbing gym on the west side will take customers from OKS, and in this case, the customers will go to a competitor.

4.4.5 Summary of SWOT analysis

Exhibit 3: SWOT analysis of Oslo Klatresenter AS

Strengths	Weaknesses	Opportunities	Threats
<p>1. Magnus Midtbø giving promotion to OKS and being a quality certification for the gym.</p> <p>2. Being the biggest climbing gym in Oslo and easily available with public transport.</p>	<p>1. Reliance on one climbing gym.</p> <p>2. Not owning the premises where the climbing gym is located.</p>	<p>1. Potential growth in the climbing gym market and increased publicity around climbing.</p> <p>2. Opening a new climbing gym on the west side of Oslo.</p>	<p>1. The Covid-19 pandemic (and potential future epidemics or pandemics).</p> <p>2. Low entry barriers to open new climbing gyms in Oslo.</p>

5. Financial statement analysis

This chapter aims to collect and analyse information about OKS AS' historical performance. Understanding how the company has performed in the past is a vital part of the valuation process, and it is necessary to build educated assumptions about the company's future. First, the framework for how the historical performance data should be analysed is presented. Thereafter comes a presentation of OKS AS' financial statements as reported by the company. Following this, the financial statements are reorganised for analysing purposes. Then this chapter ends with a historical performance analysis of OKS AS, where OKS AS also is compared with its peers.

5.1 Framework

5.1.1 Reorganising the financial statements

Unfortunately, traditional financial statements are not structured to easily give insight into a company's value and operating performance. In order to analyse the economic performance of a company, it is therefore recommended to reorganise each of the financial statements such that they clearly separate the operating items, non-operating items and sources of financing. To reorganise, it is possible to focus on the three parts (1) total funds invested and invested capital, (2) net operating profit after taxes (NOPAT), and (3) free cash flow (FCF) (Koller et al., 2020).

Reorganising for total funds invested and invested capital

The balance sheet is bound by the following principal (Koller et al., 2020):

$$\text{Assets} = \text{Liabilities} + \text{Equity}$$

Formula 16: Assets.

Formula 16 accurately showcases the most fundamental accounting rule. However, it also leads the traditional balance sheet to mix operating liabilities with sources of financing. To correct this for analysing purposes, it is possible to split up and rearrange formula 16 to the following (Koller et al., 2020):

$$\begin{aligned}
 & \textit{Operating assets} - \textit{Operating liabilities} + \textit{Nonoperating assets} \\
 & = \textit{Total funds invested} \\
 & = \textit{Debt} + \textit{Debt equivalents} + \textit{Equity} + \textit{Equity equivalents}
 \end{aligned}$$

Formula 17: Assets formula rearranged.

Through formula 17, it is possible to create a sheet of total funds invested and invested capital suitable for analysing economic performances.

Reorganizing for net operating profit after taxes

NOPAT is defined as “the after-tax profit generated from core operations, excluding any income from non-operating assets or financing expenses, such as interest” (Koller et al., 2020, p. 214). Consequently, NOPAT is the combined profit available to all investors. In order to calculate this number, the accounting income statement should be reorganised in three steps. **Firstly**, interest is reclassified as a financing item. This is because interest is not an operating expense but rather compensation to the debt investors. **Secondly**, because some assets are excluded from invested capital, the income generated by these assets should be excluded in the calculation of NOPAT. Not doing this will cause inconsistency in the definition of ROIC. Furthermore, one-time items should also be excluded from the NOPAT. Such items can make it difficult to identify trends in core performance, and they should therefore be analysed in other ways. **Thirdly**, since NOPAT only should focus on ongoing operations, effects created by non-operating income and interest expenses should be excluded from taxes. This leads to the value of the operating taxes. The difference between the value of operating taxes and the value of reported taxes is then included in the income available to investors (Koller et al., 2020).

Reorganizing for free cash flow

FCF is the cash flow available to all investors after taxes, and it is independent of non-operating items and financing flows. Thus, FCF can be defined as (Koller et al., 2020):

$$FCF = NOPAT + \textit{Noncash operating expenses} - \textit{Investments in invested capital}$$

Formula 18: Free cash flow (FCF).

Since non-operating items are not included in the FCF, they should be analysed and valued by themselves. These separate analyses should include changes in non-operating items and

income, gains, and losses associated with them. By then combining the FCF and non-operating cash flow, one will find the cash flow that is available to the investors.

5.1.2 Periode length for the financial statement analysis

A financial statement analysis purpose is primarily to highlight relevant financial information that can be used in the valuation of the company. To gain this financial information, it is essential to define the time scope relevant to the valuation. Going too far back in time can include information that no longer will provide a suitable financial picture of the company. For OKS AS, this thesis has decided to use the period 2017 to 2019. The year 2020 is not included because that year's financial statement was not publicly available at the cutoff date of this thesis. Furthermore, it would have been possible to include OKS AS' financial statements from 2015 and 2016. However, the company's operations first started in 2017, making 2015 and 2016 irrelevant for the financial statement analysis.

5.2 Presentation of Oslo Klatresenter AS' financial statements

*Exhibit 4: Oslo Klatresenter AS' income statement as reported from 2016 to 2019.
Source: OKS AS' annual reports 2016 to 2019.*

In NOK	2016	2017	2018	2019
Income				
Sales	0	12 651 234	22 413 255	31 433 495
Other operating income	0	-955	50 090	65 090
Total operating income	0	12 650 279	22 463 345	31 498 585
Expenses				
Cost of materials	0	1 060 163	1 941 915	3 127 116
Wages	116 047	4 245 330	7 693 600	8 402 074
Depreciation fixed assets and intangible assets	0	820 926	1 802 177	2 042 374
Other operating expenses	322 845	6 007 529	10 696 134	11 541 575
Total operating expenses	438 892	12 133 947	22 133 826	25 113 139
Operating profit	-438 892	516 332	329 519	6 385 446
Financial income and expenses				
Other interest income	0	0	18 193	19 410
Other financial income	18 367	19 830	0	44
Total financial income	18 367	19 830	18 193	19 454
Other interest expenses	0	0	107 876	1 921
Other financial expenses	67	8 025	3	2 075
Total financial expenses	67	8 025	107 879	3 996
Total financial income and expenses	18 300	11 805	-89 686	15 458
Ordinary result before taxes	-420 592	528 137	239 833	6 400 904
Taxes	-101 652	127 633	57 601	1 408 337
Ordinary result after taxes	-318 940	400 504	182 232	4 992 567
Net income	-318 940	400 504	182 232	4 992 567
Transfers and dispositions				
Uncovered loss	-318 940	367 711	0	0
Retained equity	0	32 793	182 232	4 992 567
Total transfers and dispositions	-318 940	400 504	182 232	4 992 567

Exhibit 5: Oslo Klatresenter AS' balance sheet as reported from 2016 to 2019.
Source: OKS AS' annual reports 2016 to 2019.

In NOK	2016	2017	2018	2019
Balance - Assets				
Assets				
Intangible assets				
Licenses, patents, trademarks, other	0	48 890	29 967	11 041
Deferred tax assets	117 909	0	0	0
Total intangible assets	117 909	48 890	29 967	11 041
Tangible assets				
Climbing wall, shock-absorbing mattress, fall floor	0	0	6 859 488	7 702 253
Operating movable property, furniture, tools, other	2 096 924	11 439 794	4 509 528	4 190 251
Total tangible assets	2 096 924	11 439 794	11 369 016	11 892 504
Total fixed assets	2 214 833	11 488 684	11 398 983	11 903 545
Current assets				
Inventories				
Inventories	0	182 353	424 139	640 339
Total Inventories	0	182 353	424 139	640 339
Debtors				
Account receivables	0	123 075	229 327	268 808
Other short-term receivables	0	40 475	89 475	65 412
Total receivables	0	163 550	318 802	334 220
Cash and deposits				
Cash and deposits	6 607 423	6 437 966	8 295 240	10 736 058
Total cash and deposits	6 607 423	6 437 966	8 295 240	10 736 058
Total current assets	6 607 423	6 783 869	9 038 181	11 710 617
Total assets	8 822 256	18 272 553	20 437 164	23 614 163
Balance - Equity and Liabilities				
Equity				
Paid-up equity				
Share capital	9 209 000	9 209 000	9 209 000	9 209 000
Total paid-up equity	9 209 000	9 209 000	9 209 000	9 209 000
Retained earnings				
Retained equity	-373 377	27 127	209 359	5 201 926
Total retained earnings	-373 377	27 127	209 359	5 201 926
Total equity	8 835 623	9 236 127	9 418 359	14 410 926
Liabilities				
Long-term debt				
Deferred tax	0	9 724	67 325	532 782
Total long-term debt	0	9 724	67 325	532 782
Short-term debt				
Trade creditors	31 662	6 093 482	4 740 807	770 916
Tax payable	0	0	0	942 880
Value added taxes	-85 088	-625 429	773 706	459 138
Other short-term debt	40 058	3 558 649	5 436 967	6 497 520
Total short-term debt	-13 368	9 026 702	10 951 480	8 670 454
Total liabilities	-13 368	9 036 426	11 018 805	9 203 236
Total equity and liabilities	8 822 256	18 272 553	20 437 164	23 614 163

5.3 Reorganizing of Oslo Klatresenter AS' financial statements

5.3.1 Reorganizing for Oslo Klatresenter AS' total funds invested and invested capital

Exhibit 6: Oslo Klatresenter AS' total funds invested and invested capital from 2016 to 2019. Source: OKS AS' annual reports 2016 to 2019 with own calculations.

In NOK	Note	2016	2017	2018	2019
Operating cash	1	0	253 006	449 267	629 972
Receivables, net		0	163 550	318 802	334 220
Merchandise inventories		0	182 353	424 139	640 339
Operating current assets		0	598 909	1 192 208	1 604 531
Accounts payable		-31 662	-6 093 482	-4 740 807	-770 916
Tax payable		0	0	0	-942 880
Value added taxes		85 088	625 429	-773 706	-459 138
Operating current liabilities		53 426	-5 468 053	-5 514 513	-2 172 934
Operating working capital		53 426	-4 869 144	-4 322 305	-568 403
Property, plant and equipment		2 096 924	11 439 794	11 369 016	11 892 504
Capitalized operating leases	2	45 070 968	45 658 401	46 127 509	46 473 604
Invested capital, excluding intangibles		47 221 318	52 229 051	53 174 220	57 797 705
Intangibles	3	0	48 890	29 967	11 041
Invested capital, including intangibles		47 221 318	52 277 941	53 204 187	57 808 746
Deferred tax assets		117 909	0	0	0
Excess cash	1	6 607 423	6 184 960	7 845 973	10 106 087
Total funds invested		53 946 650	58 462 901	61 050 160	67 914 833

Reconciliation of total funds invested

Deferred tax		0	9 724	67 325	532 782
Other short-term debt		40 058	3 558 649	5 436 967	6 497 520
Capitalized operating leases	2	45 070 968	45 658 401	46 127 509	46 473 604
Debt and debt equivalentes		45 111 026	49 226 774	51 631 801	53 503 907
Shareholders' equity		8 835 623	9 236 127	9 418 359	14 410 926
Equity and equity equivalentes		8 835 623	9 236 127	9 418 359	14 410 926
Total funds invested		53 946 650	58 462 901	61 050 160	67 914 833

Note 1: Operating- and excess cash

OKS AS do not publicly say what amount of cash and cash equivalents they define as necessary for its operations. Therefore this thesis has decided to follow the recommendation from Koller et al., (2020) about using 2% of the company's sales as a proxy for necessary working cash and cash equivalents. This recommendation is based on analyses that have found that many companies have cash balances of just under 2% of their sales (Koller et al., 2020).

Exhibit 7: Oslo Klatresenter AS' operating cash and excess cash from 2016 to 2019. Source: OKS AS' annual reports 2016 to 2019 with own calculations.

In NOK	2016	2017	2018	2019
Operating cash	0	253 006	449 267	629 972
Excess cash	6 607 423	6 184 960	7 845 973	10 106 087
Total operating cash and excess cash	6 607 423	6 437 966	8 295 240	10 736 058

Note 2: Capitalized operating leases

OKS AS leases the premises of the climbing gym, and thus the lease contract can be defined as a capitalized operating lease. Consequently, the present value of all the future lease payments must be included in the calculations of invested capital. However, a few assumptions must be taken to achieve this.

Firstly, OKS AS' balance sheet does not specify the future lease commitments since they report after the Norwegian accounting standard, and the income statement does not specify the specific year's lease costs. Therefore, this thesis assumes that the lease payments are reported under "Other operating expenses" in the income statement. Furthermore, based on the facts that the premises OKS AS leases is 3 500 square meter, the average yearly office rent per square meter at Skullerud in Q3 2020 was NOK 1200, and that the rent cost for highly specific real estate premises likely was higher, this thesis assumes that OKS AS rent cost per square meter in 2020 was NOK 1 300 (Hagen, 2015; Tiger, n.d.). This gives an estimated lease cost of NOK 4,55 million in 2020.

Secondly, lease agreements often permit the landlord to adjust the rent once per year. Assuming this is the case for OKS AS, this thesis uses the Norwegian consumer price index, as of February 2021, of 3,3% to estimate past and future years' lease payments (Statistisk sentralbyrå, 2021).

Thirdly, future lease payments must be discounted. Preferably this would have been done with OKS AS' incremental borrowing rate. As a result of lacking information, this thesis instead uses the yield to maturity on 10-year High-Quality Market corporate bonds, which on the 2nd of May 2021 was 2,74% (FRED Economic Data, 2021). This choice is based on the recommendation from Koller et al., (2020) about using the yield to maturity on 10-year AA-rated debt when a company does not state its discount rate for operating leases.

Fourthly, there is no information regarding the contract length for the lease agreement. Nevertheless, for the purpose of valuation, this thesis has chosen to assume a continuous lease

agreement with a 10-year contract length that is renewed every year. Through applying all these assumptions, the yearly lease payments and value of operating lease are calculated as followed:

Exhibit 8: Oslo Klatresenter AS' yearly lease payments from 2017 to 2029 and value of operating leases from 2016 to 2019. Source: OKS AS' annual reports 2016 to 2019 with own calculations.

Forecast year	Rental commitments	Discount factor at 2,74%	Present value of payments
2017	4 114 251	1,000	4 114 251
2018	4 254 655	1,000	4 254 655
2019	4 399 850	1,000	4 399 850
2020	4 550 000	1,000	4 550 000
2021	4 700 150	0,973	4 571 366
2022	4 855 255	0,946	4 592 832
2023	5 015 478	0,920	4 614 399
2024	5 180 989	0,895	4 636 067
2025	5 351 962	0,870	4 657 837
2026	5 528 577	0,846	4 679 710
2027	5 711 020	0,823	4 701 685
2028	5 899 483	0,801	4 723 763
2029	6 094 166	0,779	4 745 945
Value of operating leases 2016			45 070 968
Value of operating leases 2017			45 658 401
Value of operating leases 2018			46 127 509
Value of operating leases 2019			46 473 604

Note 3: Intangibles

According to Koller et al. (2020), one should make two adjustments in goodwill and acquired intangibles to calculate the invested capital. **Firstly**, deferred tax liabilities from the amortization of acquired intangibles should be subtracted. **Secondly**, cumulative amortization and impairment should be added back in. Since OKS AS does not specify the different parts of the deferred tax liabilities, this thesis has chosen not to do these two steps and instead use intangible assets as stated in the balance sheets.

5.3.2 Reorganizing for Oslo Klatresenter AS' NOPAT

Exhibit 9: Oslo Klatresenter AS' NOPAT from 2017 to 2019. Source: OKS AS' annual reports 2016 to 2019 with own calculations.

In NOK	Note	2017	2018	2019
Revenue		12 650 279	22 463 345	31 498 585
Merchandise costs		-1 060 163	-1 941 915	-3 127 116
Wages		-4 245 330	-7 693 600	-8 402 074
Depreciation		-813 041	-1 783 254	-2 023 448
Other operating expenses		-6 007 529	-10 696 134	-11 541 575
EBITA, unadjusted		524 217	348 442	6 404 372
Operating lease interest	1	1 234 945	1 251 040	1 263 894
EBITA, adjusted	1	1 759 162	1 599 482	7 668 266
Operating taxes	2	-422 199	-367 881	-1 687 018
NOPAT		1 336 963	1 231 601	5 981 247
Reconciliation to net income				
Net income		400 504	182 232	4 992 567
Amortization		7 885	18 923	18 926
Financial income		-19 830	-18 193	-19 454
Financial expenses		8 025	107 879	3 996
Operating lease interest	1	1 234 945	1 251 040	1 263 894
Non-operating tax expenses		-294 566	-310 280	-278 681
NOPAT		1 336 963	1 231 601	5 981 247

Note 1: Operating lease interest and adjusted EBITA

It is common for companies to include non-operating items in the operating expenses. Thus, to ensure that EBITA solely consists of operating expenses, it is necessary to calculate an adjusted EBITA. In OKS AS' case, the interest expenses from operating leases must be added back into the EBITA. To calculate the interest expense from operating leases one multiplies the cost of debt (in this case 2,74% as discussed previously) with the previous year's capitalized operating leases. In addition to the interest expense adjustment, EBITA should be adjusted for excess pension assets or unfunded pension liabilities (Koller et al., 2020). However, OKS AS' annual reports only specify what the yearly pension cost is. With no more information, this thesis assumes that the pensions are paid with the correct amount and that there is no need for adjustments.

Exhibit 10: Oslo Klatresenter AS' operating lease interest and lease depreciation from 2017 to 2019. Source: OKS AS' annual reports 2016 to 2019 with own calculations.

In NOK	2017	2018	2019
Capitalized operating leases	45 658 401	46 127 509	46 473 604
Operating lease interest	1 234 945	1 251 040	1 263 894
Lease expenses	4 114 251	4 254 655	4 399 850
Lease depreciation	2 879 307	3 003 615	3 135 956

Note 2: Operating taxes

When calculating NOPAT, it is desirable to use operating cash taxes. However, some companies do not provide enough information in their annual reports to separate operating deferred taxes from non-operating deferred taxes. In these cases, it is recommended to use operating taxes instead of operating cash taxes (Koller et al., 2020). OKS AS only provides enough information to separate the operating deferred taxes in 2019. Thus, this thesis has decided to use operating taxes. To calculate operating taxes, one multiple the adjusted EBITA with the statutory tax rate and then add or subtract other operating taxes (if there are any) from the statutory taxes (Koller et al., 2020).

Exhibit 11: Oslo Klatresenter AS' operating taxes from 2017 to 2019. Source: OKS AS' annual reports 2016 to 2019 with own calculations.

In NOK	2017	2018	2019
EBITA, adjusted	1 759 162	1 599 482	7 668 266
Statutory tax rate	24 %	23 %	22 %
Statutory taxes on EBITA	422 199	367 881	1 687 018
Operating taxes	422 199	367 881	1 687 018

5.3.3 Reorganizing for Oslo Klatresenter AS' FCF

Exhibit 12: Oslo Klatresenter AS' free cash flow (FCF) from 2017 to 2019. Source: OKS AS' annual reports 2016 to 2019 with own calculations.

In NOK	2017	2018	2019
NOPAT	1 336 963	1 231 601	5 981 247
Depreciation	813 041	1 783 254	2 023 448
Gross cash flow	2 150 004	3 014 855	8 004 695
Decrease (increase) in working capital	4 869 144	-546 839	-3 753 902
Less: Capital expenditures	-10 155 911	-1 712 476	-2 546 937
Decrease (increase) in capitalized operating leases	-587 433	-469 108	-346 095
Investments in acquired intangibles	-56 775	0	0
Free cash flow to investors	-3 780 971	286 432	1 357 762

5.4 Historical performance analysis

Having restructured OKS AS' financial statements for total funds invested and invested capital, NOPAT and FCF, it is now possible to analyse its historical performance. Understanding historical performance is crucial for forecasting future performance and, therefore, an essential part of the valuation. ROIC and revenue growth can be looked at as the main elements of value creation (Koller et al., 2020). Consequently, these two elements will be analysed in this part of the thesis. Furthermore, the results will be compared to OKS AS' peer companies. These comparisons are done to get an even deeper understanding of OKS AS' market and position. Restructuring of the peer companies' financial statements are presented in appendix A and B.

5.4.1 Return on invested capital analysis

ROIC is an analytical tool that focuses on a company's operations, and it can be calculated as followed (Koller et al., 2020):

$$ROIC = \frac{NOPAT}{\text{Invested capital (with or without goodwill and acquired intangibles)}}$$

Formula 19: ROIC.

It is possible to analyse ROIC both with and without goodwill and acquired intangibles. When analysing it with goodwill and acquired intangibles, the company's ability to create value exceeding paid acquisitions premiums are measured. When analysing ROIC without goodwill and acquired intangibles, the company's underlying operating performance is measured. ROIC without goodwill and acquired intangibles is most suitable when comparing with peer companies and projecting the company's future cash flows. Furthermore, when calculating ROIC, companies can choose between using the period's starting invested capital, the period's ending invested capital, or the average of these two (Koller et al., 2020). This thesis will calculate ROIC using the average of the period's starting and ending invested capital.

Formula 19 is straightforward. However, it only gives a straight answer to what the ROIC is. In other words, it does not highlight what drives the ROIC. To highlight these drivers, it is possible to split the formula further down (Koller et al., 2020):

$$ROIC = (1 - \text{Operating cash tax rate}) \times \frac{EBITA}{\text{Revenue}} \times \frac{\text{Revenue}}{\text{Invested capital}}$$

Formula 20: ROIC more detailed.

The first part of formula 20 shows the part of ROIC that comes from minimizing operating taxes. EBITA divided by revenue (operating margin) shows the part of ROIC that comes from a company's ability to maximize profitability. At the same time, revenue divided by invested capital shows the part of ROIC that comes from the company's ability to optimize capital turnover. These three components can be further split down such that the expense and capital items can be analysed individually (Koller et al., 2020).

Oslo Klatresenter AS' ROIC analysis

Exhibit 13 shows the detailed calculation of OKS AS' ROIC in the period 2017 to 2019. ROIC is calculated both with and without goodwill and acquired intangibles using formula 20.

Exhibit 13: Oslo Klatresenter AS' return on invested capital (ROIC) 2017 to 2019.

Source: OKS AS' annual reports 2016 to 2019 with own calculations.

In %	2017	2018	2019
Operating margin (% of revenue)			
EBITA/revenue (operating margin)	13,91 %	7,12 %	24,34 %
Cost of services and goods sold	8,38 %	8,64 %	9,93 %
Selling and general expenses	33,56 %	34,25 %	26,67 %
Other operating expenses, adjusted	37,73 %	42,05 %	32,63 %
Depreciation	6,43 %	7,94 %	6,42 %
Revenue/invested capital (% of revenue)*			
Invested capital/revenue	393,08 %	234,61 %	176,15 %
Operating working capital	-19,03 %	-20,46 %	-7,76 %
Fixed assets	53,50 %	50,77 %	36,92 %
Capitalized operating leases	358,61 %	204,30 %	146,99 %
Revenue/invested capital without goodwill and acquired intangibles	0,25	0,43	0,57
Pre-tax ROIC	3,54 %	3,03 %	13,82 %
Operating cash tax rate	24,00 %	23,00 %	22,00 %
ROIC without goodwill and acquired intangibles	2,69 %	2,34 %	10,78 %
Goodwill and acquired intangibles as a % of capital	0,00 %	0,09 %	0,06 %
ROIC with goodwill and acquired intangibles	2,69 %	2,33 %	10,77 %

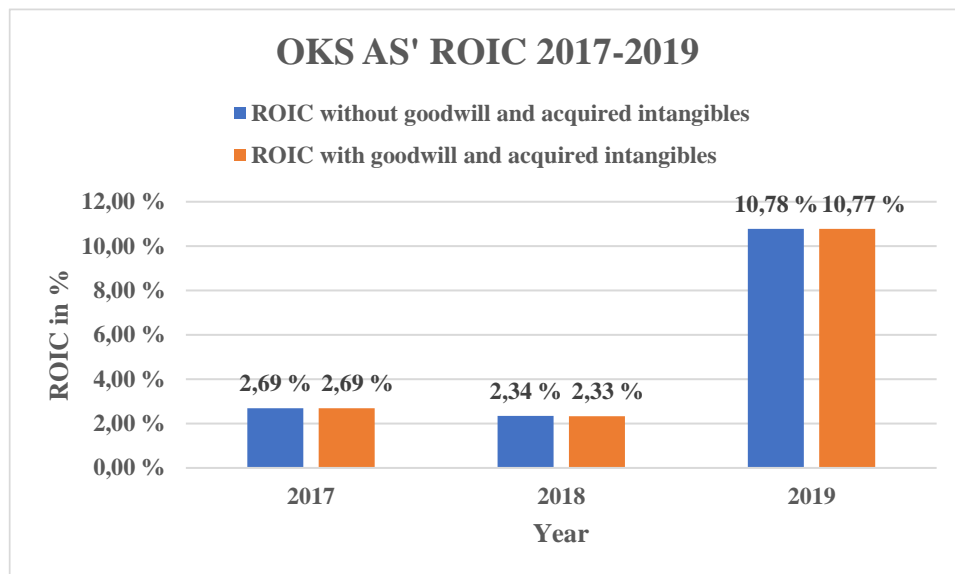
**Calculated using the year's average invested capital*

From the ROIC calculations, one can see that OKS AS' operating margin has fluctuated between 7,12% and 24,34% from 2017 to 2019, but it has grown overall. The reduction in operating margin from 2017 to 2018 was mainly driven by the growth in other operating expenses relative to revenue from 37,73% to 42,05%. Next, the growth in operating margin from 2018 to 2019 was mainly driven by the relatively low growth in costs compared to

revenue. This can most clearly be seen in the reduction of selling and general expenses relative to revenue from 34,25% to 26,67% and reduction of other operating expenses relative to revenue from 42,05% to 32,63%.

Next, all the factors under “Revenue/invested capital” in exhibit 13 are calculated using the average of the beginning and the ending of the year’s invested capital. The revenue divided by invested capital shows a growing trend from 2017 to 2019, growing from 0,25 to 0,57. This growth is mainly driven by the significant reduction in capitalized operating leases relative to revenue from 358,61% to 146,99% and the reduction of fixed assets relative to revenue from 53,50% to 36,92%. Dragging in the opposite direction, operating working capital have increased relative to revenue from -19,03% to -7,76%, mainly driven by the large decrease in accounts payable. It is important to notice that the large decrease in accounts payable can be a result of start-up investments being paid down. Thus, the 2019 level of accounts payable is likely the most representative for the future, and it is reasonable to assume that it might decrease further.

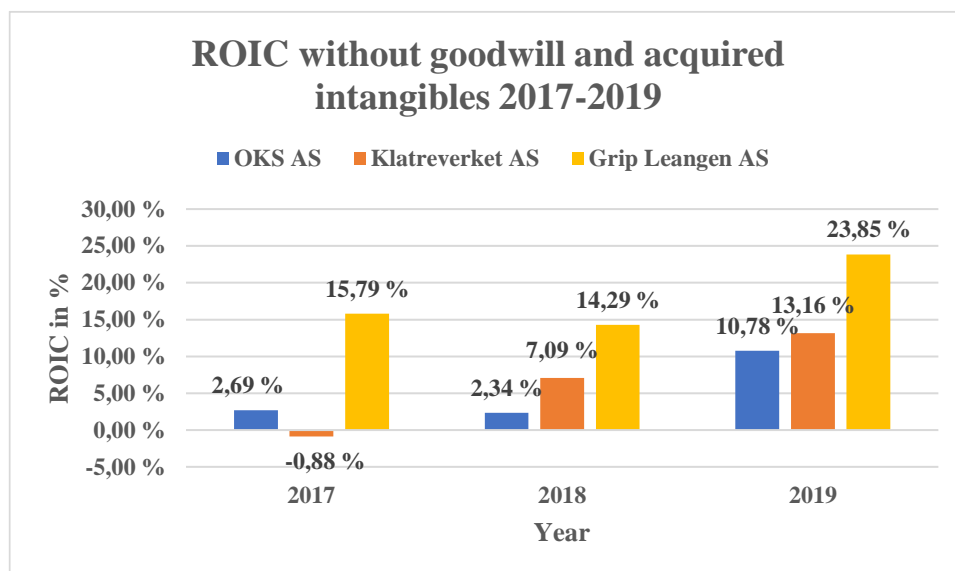
Finally, ROIC with and without goodwill and acquired intangibles grew from 2,69% to 10,77% and 2,69% to 10,78% from 2017 to 2019, respectively. This is no surprise since OKS AS has managed to establish itself in the market. Looking at exhibit 13, it is possible to see that all the three parts of formula 20 changed positively for ROIC from 2017 to 2019: (1) the tax rate was reduced from 24% to 22%, the operating margin grew from 13,91% to 24,34%, and (3) revenue divided by invested capital grew from 0,25 to 0,57. Lastly, the ROIC with goodwill and acquired intangibles are almost identical to the ROIC without goodwill and acquired intangibles the entire period. This is a result of OKS AS’ goodwill and acquired intangibles being valued to less than NOK 50 000 in the entire period, thus making close to no impact on the ROIC.



Graph 10: Oslo Klatresenter AS' ROIC with and without goodwill and acquired intangibles from 2017 to 2019. Source: OKS AS' annual reports 2016 to 2019 with own calculations.

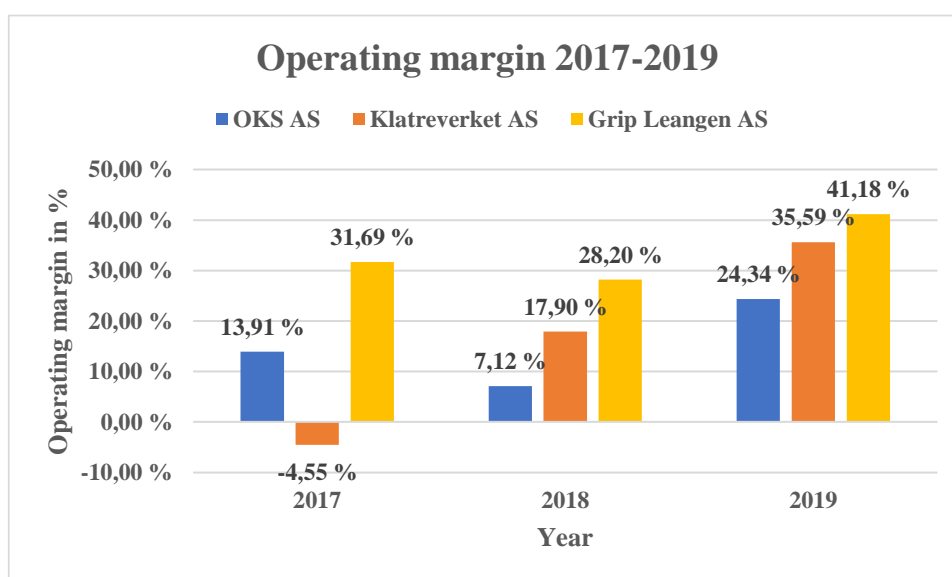
Oslo Klatresenter AS' ROIC in comparison with its peers

Having looked at OKS AS' ROIC from 2017 to 2019, it is now time to compare the ROIC without goodwill and acquired intangibles with OKS AS' peers. As discussed, Klatreverket AS is the most similar peer, but Grip Leangen AS is also included to strengthen the analysis.



Graph 11: Oslo Klatresenter AS', Klatreverket AS' and Grip Leangen AS' ROIC without goodwill and acquired intangibles from 2017 to 2019. Source: OKS AS', Klatreverket AS' and Grip Leangen AS' annual reports 2016 to 2019 with own calculations.

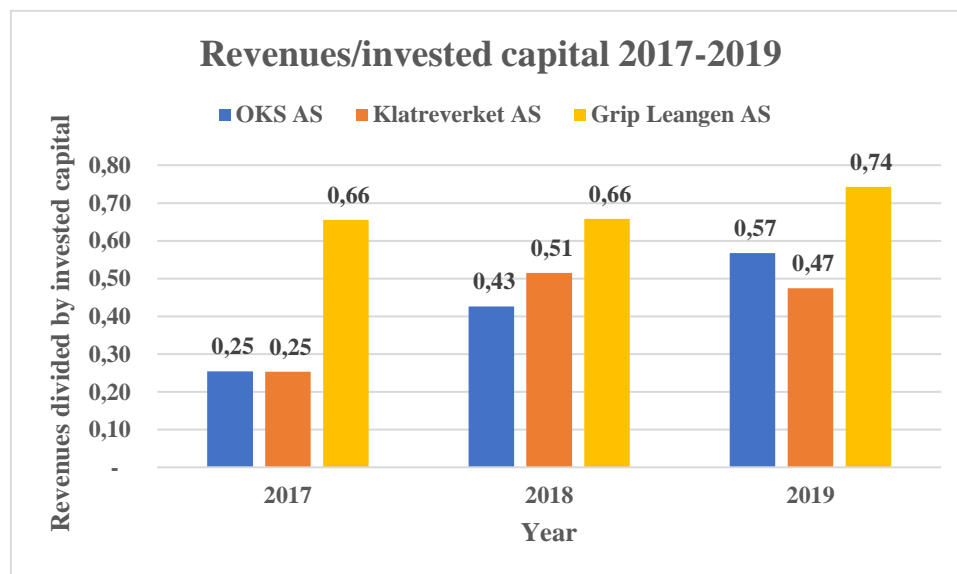
From graph 11, one can see that all the companies vastly improved their ROIC from 2017 to 2019. OKS AS, however, was overall outperformed by its peers. OKS AS' ROIC ranged from 2,69% to 10,78%, while Grip Leangen performed the best with its ROIC ranging from 15,79% to 23,58%. Klatreverket AS performed the worse of the three companies in 2017 with a ROIC of negative 0,88%. However, the negative ROIC can be attributed to how the company was structured, receiving financial revenue from daughter companies. Following the mergers with two of its daughter companies in 2018, Klatreverket AS' ROIC grew to 7,09% in 2018 and 13,16% in 2019. To better understand the differences in ROIC between the companies, it is possible to take a closer look at the operating margins and revenues divided by invested capital.



Graph 12: Oslo Klatresenter AS', Klatreverket AS' and Grip Leangen AS' operating margin from 2017 to 2019. Source: OKS AS', Klatreverket AS' and Grip Leangen AS' annual reports 2016 to 2019 with own calculations.

Unsurprisingly, Grip Leangen AS has the highest operating margin all years, ranging from 28,20% in 2018 to 41,18% in 2019. Grip Leangen AS' supreme performance seems to mainly be a result of lower operating expenses relative to revenue compared to OKS AS, and lower selling and general expenses relative to revenue compared to Klatreverket AS (except 2017 where the lower cost of services and goods sold relative to revenue seemed to be the main reason). Klatreverket AS had a worse performance in 2017 than OKS AS, with the companies' operating margins being -4,55% and 13,91%, respectively. Klatreverket AS negative result can again be linked to the company structure. After the mergers, Klatreverket AS' operating margin turned positive in 2018, and it had the largest growth from 2018 to 2019, ending at a

ROIC of 35,59%. The significant growth seems to result from Klatreverket AS being able to reduce all the cost groups relative to revenue in 2019 compared to 2018.



Graph 13: Oslo Klatresenter AS', Klatreverket AS' and Grip Leangen AS' revenues divided by invested capital from 2017 to 2019. Source: OKS AS', Klatreverket AS' and Grip Leangen AS' annual reports 2016 to 2019 with own calculations.

Again, Grip Leangen AS performed the best. Its revenue divided by invested capital grew from 0,66 in 2017 to 0,74 in 2019, driven by increased revenue. Grip Leangen AS outperforming its peers regarding revenue divided by invested capital might also be linked to the fact that Grip Leangen only operates a bouldering gym. The smaller premises and less equipment needed for a bouldering gym highly reduces the needed invested capital compared to OKS AS and Klatreverket AS. OKS AS had the biggest growth in revenue divided by invested capital, growing from 0,25 in 2017 to 0,57 in 2019. The faster growth seems to mainly be driven by the reduction in capitalized operating leases relative to revenue.

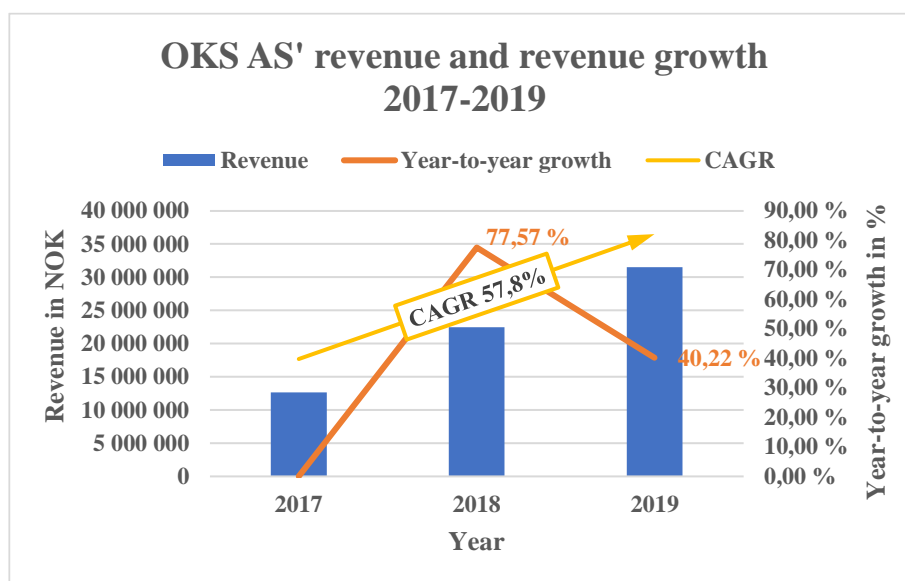
Overall, OKS AS was outperformed by its peers in the period 2017 to 2019, and the gap in ROIC to the peer leader stayed close to unchanged in the same period. While all the companies improved, OKS AS still has a couple of areas with potential for improvement when compared to its peers. These areas are other operating expenses relative to revenue and fixed assets cost relative to revenue. Nevertheless, it is important to know that these two factors already have started to convert towards the same level as OKS AS' peers. Lastly, it is also reasonable to assume that OKS AS' operating working capital relative to revenue will continue to increase.

5.4.2 Revenue growth analysis

Revenue growth analysis is a helpful tool to estimate the company's potential future revenue growth. The calculations are straightforward, but there are three downfalls that can cloud reported revenue: (1) changes in currency values, (2) merger and acquisitions (M&A), and (3) changes in accounting policies. Consequently, these three factors must be taken into account in the revenue growth analysis (Koller et al., 2020).

OKS AS and its peers are all Norwegian companies that only operate in Norway and do not have debt in any foreign currency. Thus, changes in currency value will not affect their reported revenue. Furthermore, none of the companies acquired another company during the analysis period. However, Klatreverket AS did merge with two of its daughter companies. This resulted in income from the daughter company turning from financial income in 2017 to revenue in 2018 and 2019.

Oslo Klatresenter AS' revenue growth analysis

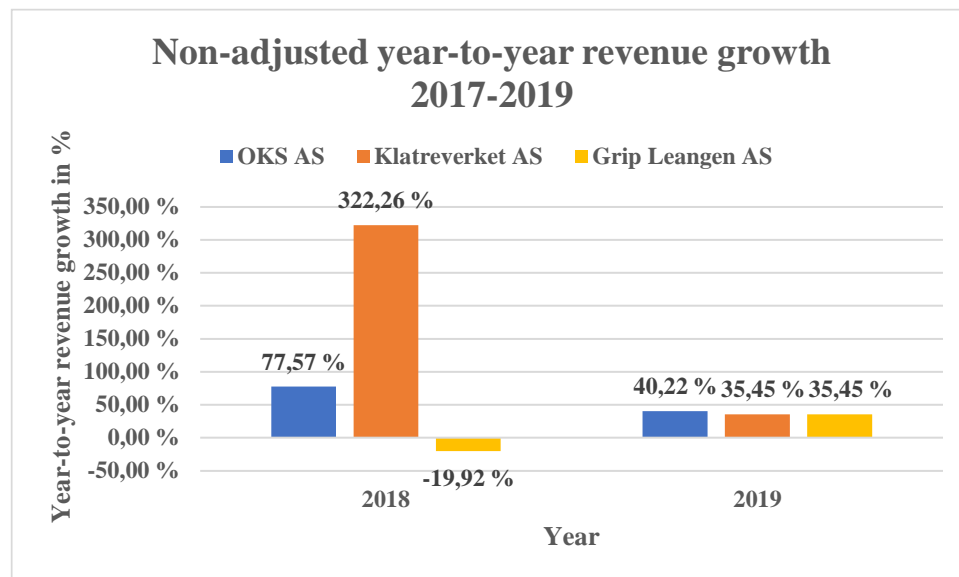


*Graph 14: Oslo Klatresenter AS' revenue and revenue growth from 2017 to 2019.
Source: OKS AS' annual reports 2017 to 2019 with own calculations.*

OKS AS revenue grew rapidly from 2017 to 2019, with a CAGR of 57,80%. The growth from 2017 to 2018 was 77,57%, and it was 40,22% from 2018 to 2019. There can be different reasons for the decreased growth rate, but one factor that likely affected it was that OKS AS first opened its gym in April 2017 (Hagen, 2017). Consequently, the revenue in 2017 was only from 9 months of operations, while the revenue in 2018 and 2019 was from 12 months of operations. Furthermore, it is reasonable to assume that the revenue growth rate is larger in

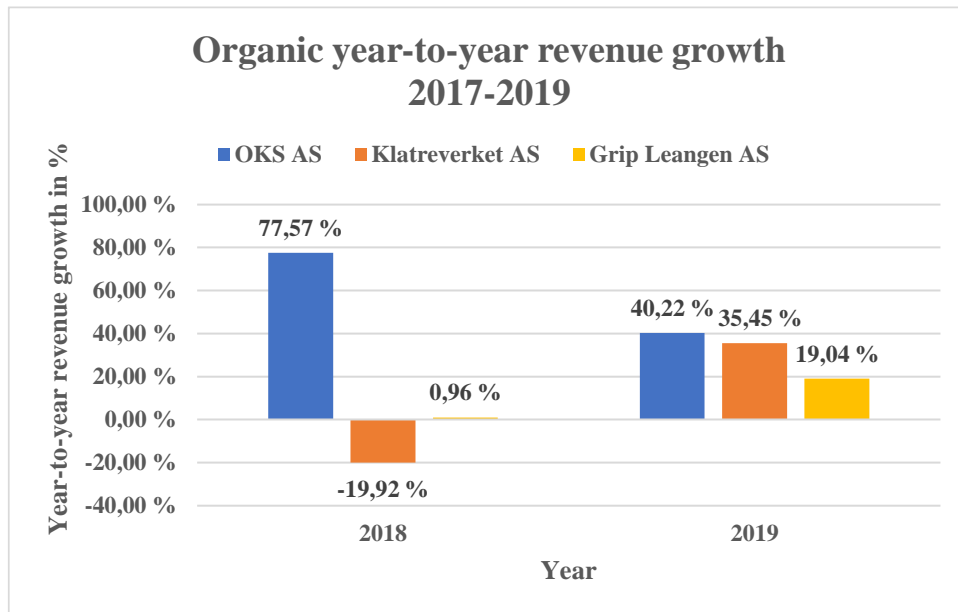
the first few years when the company establishes itself in the market. OKS AS' growth in revenue also stays the same when taking the potential downfalls that can cloud the reported revenue into consideration. OKS AS is a company that only operates in Norway without debt in foreign currency. Thus, changes in currency value have not affected its reported revenue in the period. Furthermore, OKS AS has not completed any M&A, nor have the Norwegian accounting standards changed since before the period the relevant annual reports were written.

Oslo Klatresenter AS' revenue growth in comparison with its peers



Graph 15: Oslo Klatresenter AS', Klatreverket AS' and Grip Leangen AS' non-adjusted year-to-year revenue growth from 2017 to 2019. Source: OKS AS', Klatreverket AS' and Grip Leangen AS' annual reports 2017 to 2019 with own calculations.

Like with OKS AS, it was not necessary to do any special calculations to find the organic revenue growth of Grip Leangen AS. For Klatreverket AS, on the other hand, it was necessary to adjust the revenue growth for the mergers with two of its own daughter companies at the beginning of 2018. These two mergers caused large parts of what was reported under financial income in 2017 instead to be reported as revenue in 2018 and 2019.



Graph 16: Oslo Klatresenter AS', Klatreverket AS' and Grip Leangen AS' organic year-to-year revenue growth from 2017 to 2019. Source: OKS AS', Klatreverket AS' and Grip Leangen AS' annual reports 2017 to 2019 with own calculations.

After adjusting Klatreverket AS' revenue growth to find the organic revenue growth, it is clear that OKS AS has outperformed its peers from 2017 to 2019. From 2017 to 2018 OKS AS' revenue grew with an 77,57%, compared to Klatreverket AS' -19,92% and Grip Leangen AS' 0,96%. From 2018 to 2019, the three companies' revenue growth converted towards each other, with OKS AS' 40,22%, Klatreverket AS' 35,45% and Grip Leangen AS' 19,04%. However, 2017 to 2019 has been a start-up period for OKS AS. It is therefore not a surprise that the company has outperformed its peers regarding revenue growth. In 2018 OKS AS likely took a large market share from Klatreverket AS, which would be the reason for Klatreverket AS' negative revenue growth that year. Then, in 2019, it seems OKS AS and Klatreverket AS market shares were more established, resulting in more similar trends in revenue growth.

5.4.3 Summary of historical performance analysis

Exhibit 14: Summary of the historical performance analysis. Source: OKS AS', Klatreverket AS' and Grip Leangen AS' annual reports 2017 to 2019 with own calculations.

In %	2017	2018	2019
Operating margin			
Oslo Klatresenter AS	13,91 %	7,12 %	24,34 %
Klatreverket AS	-4,55 %	17,90 %	35,59 %
Grip Leangen AS	31,69 %	28,20 %	41,18 %
Revenue/invested capital*			
Oslo Klatresenter AS	0,25	0,43	0,57
Klatreverket AS	0,25	0,51	0,47
Grip Leangen AS	0,66	0,66	0,74
ROIC without goodwill and acquired intangibles*			
Oslo Klatresenter AS	2,69 %	2,34 %	10,78 %
Klatreverket AS	-0,88 %	7,09 %	13,16 %
Grip Leangen AS	15,79 %	14,29 %	23,85 %
Organic year-to-year revenue growth			
Oslo Klatresenter AS		77,57 %	40,22 %
Klatreverket AS		-19,92 %	35,45 %
Grip Leangen AS		0,96 %	19,04 %

**Calculated using the year's average invested capital*

6. Performance forecasting

The next step is to use the insight gained from the strategic analysis and financial statement analysis to forecast OKS AS future performance. This chapter will start by presenting the framework for the forecast process. After that, it will forecast OKS AS' (1) revenue, (2) income statement, and (3) balance sheet. It is important to notice that revenue is a part of the income statement. However, revenue is forecasted by itself because the revenue forecasts are used in many of the remaining income statement line-items forecasts. Lastly, the information gained from these three forecasts will be used to forecast OKS AS' FCF and ROIC.

6.1 Framework

6.1.1 Timeframe and details of the forecast

Before the forecasting process starts, it is essential to decide the length of the forecast period and how detailed the forecasting shall be in the different years of that period. Usually, the forecast is divided into two specific periods: (1) the year-by-year period where each year is forecasted individually, and (2) the steady-state (continuing value) period where the forecast is calculated with a perpetuity formula. Based on this division, the year-by-year period must be long enough for the company to achieve a steady-state. By definition, a steady-state is when the company has reached a constant growth rate with a constant proportion of its operating profits being reinvested into the company each year, and the rate of return from both existing- and new capital is constant (Koller et al., 2020).

It becomes increasingly difficult to forecast on a highly detailed lever for each year. Thus, the year-by-year forecast period often gets split into two different forecast periods. The first period is a highly detailed forecast of the first five- to seven years, where complete balance sheets and income statements should be developed. The second period is a simplified forecast of the remaining years before the steady-state period, and it only focuses on a few critical variables. Examples of these variables are revenue growth, capital turnover and operating margins (Koller et al., 2020).

This thesis will use three different periods in the forecasting of OKS AS: (1) a detailed 5-year period from 2020 to 2024, (2) a simplified 10-year period from 2025 to 2034, and (3) a steady-state period after 2034. Again, it is important to specify that the year 2020 must be forecasted

in this thesis because that year's financial statements were not publicly available on the 2nd of May 2021.

6.1.2 Forecast of revenue

It is possible to use a top-down or a bottom-up approach when forecasting a company's revenue. The top-down approach estimates revenue by forecasting prices and market size and then combining this with estimations of the company's market share. On the other hand, the bottom-up approach uses the company's own demand forecasts that are based on existing customers, the potential for new customers and customer turnover (Koller et al., 2020). Which method to use depends on the available information for the forecast. This thesis has chosen to use the top-down approach because of the limited information about OKS AS' customers and the fact that the climbing gym market in Oslo has few players. The fact that there are few players makes it easier to calculate the market size. Then the market size can be combined with assumptions about growth trends in the sport of climbing.

6.1.3 Forecast of the income statement

As discussed, the first years of the income statement forecast should be done at the line-item level. To forecast on this level, it is possible to follow a three-step process: (1) figure out which economic relationships that drive the line-item, (2) estimate the forecast ratio, and (3) multiply the forecast ratio with an estimate of its driver. The most typical forecast drivers and ratios for the most common income statement line-items are presented in exhibit 15 (Koller et al., 2020).

Exhibit 15: The most typical forecast drivers and ratios for the most common income statement line-items. Source: Koller et al., 2020.

	Line-item	Typical forecast driver	Typical forecast ratio
Operating	Cost of goods sold (COGS)	Revenue	COGS/revenue
	Selling, general and administrative (SG&A)	Revenue	SG&A/revenue
	Depreciation	Prior-year net PP&E	Depreciation _t /net PP&E _{t-1}
Non-operating	Non-operating income	Appropriate non-operating assets	Non-operating income/non-operating assets or growth in non-operating income
	Interest expense	Prior-year total debt	Interest expense _t /total debt _{t-1}
	Interest income	Prior-year excess cash	Interest income _t /excess cash _{t-1}

6.1.4 Forecast of the balance sheet

Like the income statement, the balance sheet forecast should be done at the line-item level for the first five years. However, one of the first decisions to make is whether the balance sheet line-items should be forecasted directly or indirectly. Directly forecasting is done in stocks, while forecasting indirectly is done by forecasting the yearly changes in the accounts (Koller et al., 2020). This thesis will use the direct approach because that is the method Koller et al. (2020) recommends. The most typical forecast drivers and ratios for the most common balance sheet line-items are presented in exhibit 16.

Exhibit 16: The most typical forecast drivers and ratios for the most common balance sheet line-items. Source: Koller et al., 2020.

	Line-item	Typical forecast driver	Typical forecast ratio
Operating	Accounts receivable	Revenue	Accounts receivable/revenue
	Inventories	Cost of goods sold	Inventories/COGS
	Accounts payable	Cost of goods sold	Accounts payable/COGS
	Accrued expenses	Revenue	Accrued expenses/revenue
	Net PP&E	Revenue or units sold	Net PP&E/revenue
	Goodwill and acquired intangibles	Acquired revenue	Goodwill and acquired intangibles/acquired revenue
Non-operating	Non-operating assets	None	Growth in non-operating assets
	Pension assets or liabilities	None	Trend toward zero
	Deferred taxes	Operating taxes or corresponding balance sheet item	Change in operating deferred taxes/operating taxes, or deferred taxes/corresponding balance sheet item

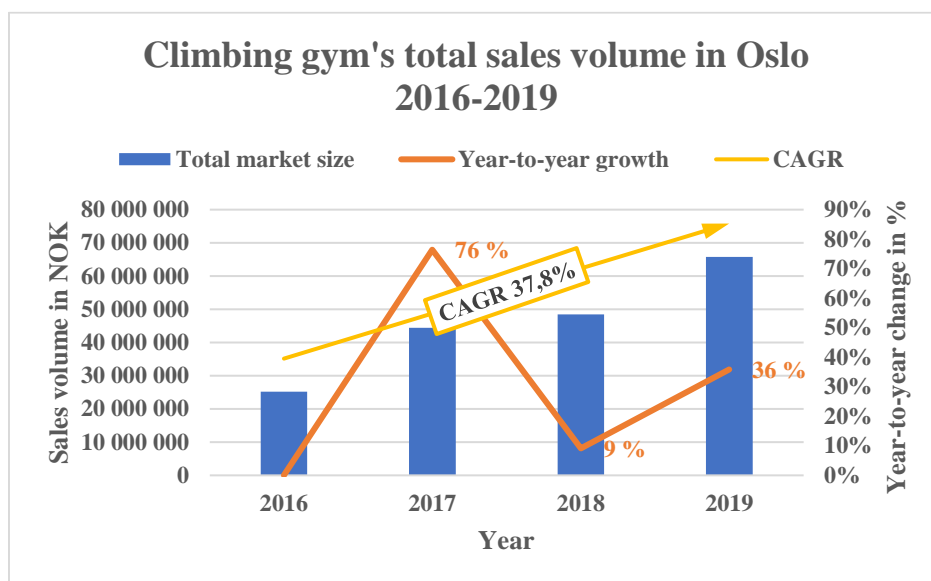
6.2 Forecasting of Oslo Klatresenter AS' revenue

As discussed, this thesis will use the top-down approach to forecast OKS AS' revenue. With this approach, the market size for climbing gyms in Oslo must be forecasted first. Thereafter,

follows a forecast of OKS AS' market share, before both these forecasts will be used to forecast OKS AS' revenue.

6.2.1 Forecast of market size for climbing gyms in Oslo

Graph 17 shows that the climbing gym market in Oslo had a growing trend from 2016 to 2019, with a CAGR of 37,77%. The growth was largest from 2016 to 2017, with 76%. Parts of this was because Kolsås Klatreklubb's revenue was not included in 2016. Adjusting for Kolsås Klatreklubb's revenue, the market growth was still an impressive 66%. The immense growth from 2016 to 2017 corresponds with the opening of OKS, which can indicate that the market supply was not large enough for the demand. Thus, OKS might have made the other gyms less crowded in peak training hours, resulting in more room for market growth. Given that the gyms are in different locations, the opening of OKS might also have attracted new customers in the local area that did not bother travelling to the old gyms.



Graph 17: Climbing gyms' total sales volume in Oslo from 2016 to 2019. Source: OKS AS', Klatreverket AS' and Kolsås Klatreklubb's annual reports 2016 to 2019 with own calculations.

Combining the information about climbing gyms' historical sales volume in Oslo with the trends in the sport of climbing presented in chapter two and social factors presented in chapter four, it seems likely that the climbing gym market in Oslo will continue to grow in the long term. However, the Covid-19 pandemic has negatively affected the market in 2020 and 2021.

Exhibit 17: Historical and forecast of climbing gyms' total sales volume in Oslo. Source: OKS AS', Klatreverket AS' and Kolsås Klatreklubb's annual reports 2016 to 2019 with own calculations.

In NOK	Historical					Short-term forecast				
Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Sales volume in Oslo	25 147 866	44 351 444	48 402 518	65 764 963	21 702 438	23 221 608	78 917 956	88 388 110	101 646 327	
Growth rate	0	76,4 %	9,1 %	35,9 %	-67,0 %	7,0 %	239,8 %	12,0 %	15,0 %	

In NOK	Long-term forecast										CV
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Sales volume in Oslo	111 810 959	120 755 836	128 001 186	134 401 246	140 449 302	146 769 520	152 640 301	158 745 913	164 302 020	170 052 591	
Growth rate	10,0 %	8,0 %	6,0 %	5,0 %	4,5 %	4,5 %	4,0 %	4,0 %	3,5 %	3,5 %	

The short-term forecast expects that the size of the climbing gym market in Oslo was reduced by 67% in 2020. This reduction is expected because of the Covid-19 pandemic that forced the gyms to close in March 2020 and for large parts of the remainder of the year. Thus, the gyms only operated as normal for around 20% of the year. However, the period before March 2020 likely experienced growth from the previous year. Based on this assumption and short periods of open gyms for the rest of the year, a negative 67% forecast seems reasonable. Next, 2021 is forecasted to grow by 7% from 2020. This is based on vaccination forecasts, the fact that gyms in Oslo have been closed the entire year until the 2nd of May and are expected to stay closed even further, and that the gyms likely will be able to operate close to normal by the end of summer 2021. The forecast for 2022 is based on expectations of society getting more or less back to normal and that the climbing gym market in Oslo therefore continues to grow 20% past its size in 2019. Then the growth is forecasted to slow down to 12% in 2023, before it gets a slight boost again, up to 15%, from climbing being in the 2024 Paris Olympics. From there, this thesis forecasts a gradual decrease in the growth rate before reaching a steady-state level in 2033 of 3,5%, just above the consumer price index of 3,3% in February 2021 (Statistisk sentralbyrå, 2021). Under these assumptions, the sales volume in Oslo will have a CAGR of 6,76% from 2019 to 2033.

6.2.2 Forecast of Oslo Klatresenter AS' market share

Exhibit 18: Historical and forecast of Oslo Klatresenter AS' market share. Source: OKS AS', Klatreverket AS' and Kolsås Klatreklubb's annual reports 2016 to 2019 with own calculations.

In %	Historical					Short-term forecast				
Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	
OKS AS	0,0 %	28,5 %	46,4 %	47,9 %	47,9 %	47,9 %	47,9 %	47,9 %	47,9 %	

In %	Long-term forecast										CV
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
OKS AS	47,9 %	40,0 %	36,0 %	36,0 %	36,0 %	36,0 %	36,0 %	36,0 %	36,0 %	36,0 %	

After opening OKS in 2017, OKS AS enjoyed rapid growth to a market share of 46,4% in 2018. After that, the company only had a small growth in 2019, summing up to a market share

of 47,9%. Based on all the competitors' small changes in market share in 2019, this thesis considers all the current players in Oslo's climbing gym market to have established their market share. Therefore, OKS AS' market share is forecast to stay unchanged until 2026.

As a result of the historical growth rates in Norwegian climbing and the expected new publicity for the sport in the 2024 Paris Olympics, this thesis considers it highly likely that a new climbing gym will be opened by the beginning of 2026. In this thesis's forecast, the new climbing gym is assumed to open at the beginning of 2026, be around the same size as OKS, be opened by a competitor of OKS AS, and located on the west side of Oslo. As a result of these assumptions, OKS AS' market share is assumed to fall to 40% in 2026 and 36% in 2028. By 2028 the new climbing gym should have established itself in the market, and OKS AS' market share is forecasted to stay at 36% after that. Thus, OKS AS is forecasted to still be the market leader by a few percent, with Klatreverket AS and the new climbing gym almost having a third of the market each. Kolsås Klatreklubb, on the other hand, is forecasted to stay at around 1% market share, like its current position.

6.2.3 Forecast of Oslo Klatresenter AS' revenue

Exhibit 19: Historical and forecast of Oslo Klatresenter AS' revenue and revenue growth. Source: OKS AS', Klatreverket AS' and Kolsås Klatreklubb's annual reports 2016 to 2019 with own calculations.

In NOK	Historical				Short-term forecast					
Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Sales volume in Oslo	25 147 866	44 351 444	48 402 518	65 764 963	21 702 438	23 221 608	78 917 956	88 388 110	101 646 327	
OKS AS' market share	0,0 %	28,5 %	46,4 %	47,9 %	47,9 %	47,9 %	47,9 %	47,9 %	47,9 %	
Revenue	0	12 650 279	22 463 345	31 498 585	10 394 533	11 122 150	37 798 302	42 334 098	48 684 213	
OKS AS' revenue growth rate	0,0 %	Non definable	77,6 %	40,2 %	-67,0 %	7,0 %	239,8 %	12,0 %	15,0 %	

In NOK	Long-term forecast										CV
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Sales volume in Oslo	111 810 959	120 755 836	128 001 186	134 401 246	140 449 302	146 769 520	152 640 301	158 745 913	164 302 020	170 052 591	
OKS AS' market share	47,9 %	40,0 %	36,0 %	36,0 %	36,0 %	36,0 %	36,0 %	36,0 %	36,0 %	36,0 %	
Revenue	53 552 634	48 302 335	46 080 427	48 384 448	50 561 749	52 837 027	54 950 508	57 148 529	59 148 727	61 218 933	
OKS AS' revenue growth rate	10,0 %	-9,8 %	-4,6 %	5,0 %	4,5 %	4,5 %	4,0 %	4,0 %	3,5 %	3,5 %	

OKS AS is forecasted to have negative revenue growth in 2020, consistent with Oslo's overall climbing gym market. Thereafter, this thesis forecasts that OKS AS' revenue growth will stay positive and consistent with the overall growth in Oslo's climbing gym market size until 2026. In 2026 this thesis has assumed that another company than OKS AS opens a new climbing gym on the west side of Oslo. This new gym will cause OKS AS to gradually lose market share in 2026 and 2027, resulting in negative revenue growth of 9,8% and 4,6% in 2026 and 2027, respectively. In 2028 the different companies' market shares are assumed to have stabilized, causing OKS AS' revenue growth to turn positive and again consistent with the overall market growth. Under these assumptions, OKS AS' revenue is expected to have a

CAGR of 4,60% from 2019 to 2033. Then, the revenue growth rate is assumed to stabilize at a steady-state of 3,50%.

6.3 Forecasting Oslo Klatresenter AS' income statement

6.3.1 Assumptions about the income statement

Exhibit 20: Forecasting assumptions about Oslo Klatresenter AS' income statement.

In %		Historical			Forecast				
Year	Note	2017	2018	2019	2020	2021	2022	2023	2024
Revenue growth		Non definable	77,6 %	40,2 %	-67,0 %	7,0 %	239,8 %	12,0 %	15,0 %
Government compensation for Covid-19	1	0,0 %	0,0 %	0,0 %	15,8 %	15,8 %	0,0 %	0,0 %	0,0 %
Operating expenses									
Cost of services and goods sold/revenue	2	8,4 %	8,6 %	9,9 %	8,0 %	8,3 %	10,5 %	10,5 %	10,5 %
SG&A/revenue	3	33,6 %	34,2 %	26,7 %	53,0 %	40,0 %	28,0 %	25,5 %	25,5 %
Other costs/revenue	4	47,5 %	47,6 %	36,6 %	71,5 %	60,9 %	31,2 %	30,0 %	25,0 %
Depreciation/revenue	5	6,4 %	7,9 %	6,4 %	6,9 %	6,9 %	6,9 %	6,9 %	6,9 %
Non-operating items									
Amortization(t)/ net acquired intangibles (t-1)	5	13,9 %	38,7 %	63,2 %	100,0 %	0,0 %	0,0 %	0,0 %	0,0 %
Interest expense(t)/total debt(t-1)	6	0,1 %	2,3 %	0,2 %	0,2 %	0,2 %	0,2 %	0,2 %	0,2 %
Interest income(t)/excess cash(t-1)	6	0,3 %	0,3 %	0,2 %	0,2 %	0,2 %	0,2 %	0,2 %	0,2 %
Other financial expenses in NOK	6	0	3	2 075	0	0	0	0	0
Other financial income in NOK	6	0	0	44	0	0	0	0	0
Taxes									
Statutory tax rate	7	24,0 %	23,0 %	22,0 %	22,0 %	22,0 %	22,0 %	22,0 %	22,0 %
Operating tax rate	7	24,0 %	23,0 %	22,0 %	22,0 %	22,0 %	22,0 %	22,0 %	22,0 %

Note 1: Government compensation for Covid-19

The Norwegian government gave out compensations in 2020 to companies that had been hardly affected by the Covid-19 pandemic. OKS AS are among these companies and has received a total of NOK 3 332 558. This amount was decided based on how large revenue OKS AS had in the different months affected by Covid-19 compared to the same months in 2019 (Brønnøysundregistrene, n.d.-a; Skatteetaten, n.d.). Consequently, this thesis has decided to estimate the government compensation in 2021 using the same ratio as received in 2020:

$$\begin{aligned}
 \text{Government compensation for Covid} - 19 &= \frac{\text{Government compensation}_t}{\text{Revenue}_{2019} - \text{Revenue}_t} \\
 &= \frac{3\,332\,558}{31\,498\,585 - 10\,394\,533} = 15,8\%
 \end{aligned}$$

Formula 21: Government compensation for Covid-19

Note 2: Cost of services and goods sold

From 2017 to 2019, OKS AS' cost of services and goods sold gradually increased from 8,4% to 9,9% of revenue. As a result of reduced wear and tear on the gym's equipment during the

Covid-19 pandemic and the gym's cafeteria being closed during the periods the gym has been open after March 2020, this thesis believes that the cost of services and goods sold will fall to 8,0% of revenue in 2020. Then, based on the assumption that the gym can operate close to normal again from September 2021, it is forecasted that the cost of services and goods sold will increase to 8,3% of revenue in 2021. After that, this thesis forecast a cost of services and goods sold of 10,5% of revenue for the reminding forecast period. It seems like OKS had established itself in the market by 2019. Therefore, it is no specific reason to believe that the relative cost of services and goods sold should increase much more than the 2019 level.

Note 3: Selling, general and administrative (SG&A)

In the period 2017 to 2019, OKS AS' SG&A costs gradually decreased from 33,6% of revenue to 26,7% of revenue. Since OKS AS' SG&A cost only consists of wages, the SG&A/revenue ratio will likely increase in 2020. The reason is that though wages are variable costs in the long run, it is hard to change them in the short-term. Therefore, this thesis forecasts that the SG&A costs will be 53,0% of revenue in 2020. Following this increase, it will decrease to 40% in 2021 due to less fixed wages in the first half of the year and assumed increased revenue in the second half of the year. Then SG&A costs are forecasted to fall to 28,0% in 2022, almost equal to the 2019 level, before stabilising itself at 25,5% in 2023.

Note 4: Other costs

From 2017 to 2019, other costs averaged 37,5% of revenue. OKS AS does not detail what other costs include, but this thesis assumed in chapter 5 that 38,1% of it in 2019 were premises lease costs. The rest of it is from numerous things like electricity, washing and other unknowns. The individual costs that make up other costs are therefore impossible to split up. Therefore, this thesis has assumed that only 25,0% of total other costs in 2019 could be cut down in 2020 due to the closed gym. Thus, other costs are forecasted to increase to 71,5% and 60,9% of revenue in 2020 and 2021, respectively. After that, it falls to 31,2% in 2022. From there, other costs are assumed to gradually decrease to 25,0% by 2024, which is close to the historical level of OKS AS' peers.

Note 5: Depreciation and amortization

This thesis assumes that OKS AS only will invest in new property, plant and equipment (PP&E) when it is necessary to replace old assets after wear and tear. Combining this with the fact that most of the current PP&E lifespan depends on the customer usage volume and that OKS do not own any property or plant, this thesis believes it is best to forecast depreciation

as a percentage of revenue. By using the average depreciation ratio of 2017, 2018 and 2019, the forecast depreciation is 6,9% of revenue.

The amortization ratios are calculated based on the periods starting intangible assets. It is expected to be 100% in 2020 and 0,0% for the reminding forecast period. This is because the last value of the acquired intangible is to be amortized in 2020, and it is not expected that OKS AS will acquire any new intangibles.

Note 6: Other non-operating items

Other non-operating items do not affect the valuation of a company because they do not run through the FCF. Nevertheless, they are good to include since they can be helpful in checking for mistakes in the forecast of operating items. As other non-operating items do not affect the valuation, using historical ratios are a straightforward estimation method (Koller et al., 2020). Thus, this thesis uses the historical interest- expense and income ratios in the forecasts. Furthermore, other financial- expenses and income are forecasted to be zero because they have been zero or close to it the entire historical period. This last statement is based on the fact that OKS AS switched from only reporting financial- expenses and income in 2017 to mainly reporting interest- expenses and income in 2018. Thus, this thesis assumes that the financial- expenses and income reported in 2016 and 2017 solely consisted of interest- expenses and income.

Note 7: Taxes

The statutory tax rate and the operating tax rate of OKS AS is equal because the company only operates in Norway and do not have any operating related tax credits (Koller et al., 2020).

6.3.2 Oslo Klatresenter AS' income statement forecast

Exhibit 21: Oslo Klatresenter AS' income statement forecast.

In NOK	Historical				Forecast				
Year	2017	2018	2019	2020	2021	2022	2023	2024	
Revenue	12 650 279	22 463 345	31 498 585	10 394 533	11 122 150	37 798 302	42 334 098	48 684 213	
Government compensation for Covid-19	0	0	0	3 332 558	3 217 659	0	0	0	
Cost of services and goods sold	-1 060 163	-1 941 915	-3 127 116	-831 563	-923 138	-3 968 822	-4 445 080	-5 111 842	
SG&A	-4 245 330	-7 693 600	-8 402 074	-5 509 103	-4 448 860	-10 583 525	-10 795 195	-12 414 474	
Other costs	-6 007 529	-10 696 134	-11 541 575	-7 435 394	-6 777 634	-11 780 200	-12 700 229	-12 171 053	
Depreciation	-813 041	-1 783 254	-2 023 448	-720 324	-770 746	-2 619 359	-2 933 682	-3 373 735	
Operating lease interest	1 234 945	1 251 040	1 263 894	1 273 377	1 279 356	1 285 364	1 291 400	1 297 464	
EBITA, adjusted	1 759 162	1 599 482	7 668 266	504 085	2 698 787	10 131 760	12 751 311	16 910 572	
Operating taxes	-422 199	-367 881	-1 687 018	-110 899	-593 733	-2 228 987	-2 805 288	-3 720 326	
NOPAT	1 336 963	1 231 601	5 981 247	393 186	2 105 054	7 902 773	9 946 022	13 190 246	
Reconciliation to net income									
Net income	400 504	182 232	4 992 567	-870 800	833 517	6 626 625	8 688 326	11 944 722	
Amortization	7 885	18 923	18 926	11 041	0	0	0	0	
Financial income	-19 830	-18 193	-19 454	-25 001	-10 536	-12 382	-45 647	-69 320	
Financial expenses	8 025	107 879	3 996	1 921	511	567	2 438	2 731	
Operating lease interest	1 234 945	1 251 040	1 263 894	1 273 377	1 279 356	1 285 364	1 291 400	1 297 464	
Non-operating tax expense	-294 566	-310 280	-278 681	2 649	2 205	2 599	9 506	14 650	
NOPAT	1 336 963	1 231 601	5 981 247	393 186	2 105 054	7 902 773	9 946 022	13 190 246	

6.4 Forecasting Oslo Klatresenter AS' balance sheet

6.4.1 Assumptions about the balance sheet

Exhibit 22: Forecasting assumptions about Oslo Klatresenter AS' balance sheet.

In %		Historical				Forecast				
Year	Note	2017	2018	2019	2020	2021	2022	2023	2024	
Operating items										
Operating cash	1	2,0 %	2,0 %	2,0 %	2,0 %	2,0 %	2,0 %	2,0 %	2,0 %	
Receivables	1	1,3 %	1,4 %	1,1 %	1,3 %	1,3 %	1,3 %	1,3 %	1,3 %	
Merchandise inventories	1	17,2 %	21,8 %	20,5 %	19,8 %	19,8 %	19,8 %	19,8 %	19,8 %	
Accounts payable	1	574,8 %	244,1 %	24,7 %	24,7 %	24,7 %	24,7 %	24,7 %	24,7 %	
Other current liabilities	1	-4,9 %	3,4 %	4,5 %	3,9 %	3,9 %	3,9 %	3,9 %	3,9 %	
Fixed assets										
PP&E, including capitalized operating leased assets	2	451,4 %	256,0 %	185,3 %	564,1 %	532,8 %	158,4 %	143,0 %	125,7 %	
Non-operating assets										
Excess cash	3	48,9 %	34,9 %	32,1 %	41,0 %	45,0 %	48,8 %	66,2 %	85,0 %	
Goodwill and acquired intangibles										
Goodwill	4	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	
Acquired intangibles	4	0,4 %	0,1 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	

Note 1: Operating items

Operating cash is assumed to stay at 2% of revenue for the entire forecast period. The ratios of receivables, merchandise inventories and account payable are calculated using the methods presented in exhibit 16. For receivables and merchandise inventories, this thesis assumes that the historical average is a reasonable estimate for the future. The historical accounts payable ratio, on the other hand, has significantly changed with a downward trend. As discussed earlier, this is likely a result of start-up investments being paid down. Therefore, this thesis finds it most reasonable to use the accounts payable ratio of 2019 in the forecast period. Lastly, other current liabilities are calculated as a ratio of revenue. The average other current liabilities

ratio of 2018 and 2019 has been used for the forecast period, excluding the anomaly 2017 ratio.

Note 2: Fixed assets

Property plant and equipment (PP&E), including capitalized operating leased assets, are calculated as a ratio of revenue. This is done by multiplying OKS AS' average fixed assets from 2017 to 2019 with the February 2021 inflation rate of the Norwegian consumer price index, summing this number together with the assumed value of capitalized operating leases and then dividing it with forecasted revenue.

Note 3: Excess cash

Excess cash is forecasted through using the accounting principle that total assets must equal total liabilities plus equity. Consequently, the percentage of excess cash relative to revenue is calculated based on the specific year's forecasted excess cash and revenue. This is explained further in subchapter 6.4.2.

Note 4: Goodwill and acquired intangibles

Both goodwill and acquired intangibles are calculated as ratios of revenue. OKS AS, however, has never had any goodwill. Thus, the goodwill is forecasted to stay at 0%. The acquired intangibles are to be amortized to a value of zero in 2020, and it is not expected that OKS AS will acquire any new intangibles.

6.4.2 Oslo Klatrsenter AS' balance sheet forecast

Exhibit 23: Oslo Klatrsenter AS' balance sheet forecast.

In NOK Year	Historical			Forecast				
	2017	2018	2019	2020	2021	2022	2023	2024
Operating cash	253 006	449 267	629 972	207 891	222 443	755 966	846 682	973 684
Receivables	163 550	318 802	334 220	130 733	139 884	475 393	532 440	612 306
Merchandise inventories	182 353	424 139	640 339	164 979	183 147	787 397	881 885	1 014 168
Operating current assets	598 909	1 192 208	1 604 531	503 602	545 474	2 018 757	2 261 007	2 600 158
Accounts payable	-6 093 482	-4 740 807	-770 916	-205 002	-227 578	-978 419	-1 095 829	-1 260 203
Other current liabilities	625 429	-773 706	-1 402 018	-410 343	-439 067	-1 492 155	-1 671 214	-1 921 896
Operating current liabilities	-5 468 053	-5 514 513	-2 172 934	-615 345	-666 644	-2 470 574	-2 767 042	-3 182 099
Operating working capital	-4 869 144	-4 322 305	-568 403	-111 742	-121 170	-451 817	-506 035	-581 940
PP&E, including capitalized operating leased assets	57 098 195	57 496 525	58 366 109	58 640 654	59 254 221	59 881 829	60 523 914	61 180 923
Invested capital, excluding intangibles	52 229 051	53 174 220	57 797 705	58 528 912	59 133 050	59 430 012	60 017 879	60 598 982
Intangibles	48 890	29 967	11 041	0	0	0	0	0
Invested capital, including intangibles	52 277 941	53 204 187	57 808 746	58 528 912	59 133 050	59 430 012	60 017 879	60 598 982
Excess cash	6 184 960	7 845 973	10 106 087	4 258 818	5 005 124	18 451 766	28 020 767	41 379 908
Total funds invested	58 462 901	61 050 160	67 914 833	62 787 730	64 138 175	77 881 778	88 038 645	101 978 891
Reconciliation of total funds invested								
Deferred tax	9 724	67 325	532 782	27 725	148 433	557 247	701 322	930 081
Other short-term debt	3 558 649	5 436 967	6 497 520	2 528 044	2 705 007	9 192 887	10 296 033	11 840 438
Capitalized operating leases	45 658 401	46 127 509	46 473 604	46 691 835	46 911 090	47 131 376	47 352 695	47 575 054
Debt and debt equivalents	49 226 774	51 631 801	53 503 907	49 247 603	49 764 531	56 881 509	58 350 050	60 345 573
Paid-up equity	9 209 000	9 209 000	9 209 000	9 209 000	9 209 000	9 209 000	9 209 000	9 209 000
Retained earnings	27 127	209 359	5 201 926	4 331 127	5 164 644	11 791 269	20 479 595	22 424 317
Dividend payable	0	0	0	0	0	0	0	10 000 000
Total equity and its equivalents	9 236 127	9 418 359	14 410 926	13 540 127	14 373 644	21 000 269	29 688 595	41 633 317
Total funds invested	58 462 901	61 050 160	67 914 833	62 787 730	64 138 175	77 881 778	88 038 645	101 978 891

When forecasting the balance sheet, there will ultimately be up to four different line items left to forecast: (1) excess cash, (2) short-term debt, (3) long-term debt, and (4) newly issued debt. These line-items must be combined in such a way that makes the balance sheet balance (Koller et al., 2020). This thesis assumes other short-term debt will stay at 24,3% of revenue for the entire forecast period, which was the average of the period 2017 to 2019. Next, OKS AS has never reported any long-term debt. Thus, excluding capitalized operating leases, this thesis has chosen to forecast that long-term debt stays at zero. The forecasts of capitalized operating leases are calculated the same way as their historical values presented in chapter five. Newly issued debt is also assumed to be zero for the short-term forecast period. That leaves excess cash to balance the balance sheet. Consequently, excess cash is forecasted using the accounting principle that total assets must equal total liabilities plus equity. Lastly, this thesis assumes that OKS AS, until 2025, will build up its equity for potential new investments and safety. Then, from 2026 it is assumed that OKS AS will start paying out dividends.

6.5 Forecasting Oslo Klatrsenter AS' FCF and ROIC

After having completed the forecasts of the income statement and the balance sheet, it is now time to forecast FCF and ROIC. For the first five years, the FCF and ROIC forecasts are based on the specific numbers forecasted in the income statement and balance sheet. From year six,

however, the forecasts will only be based on the variables (1) revenue growth and (2) operating margin (EBITA margin).

6.5.1 Short-term forecast

Exhibit 24: Short-term forecast of Oslo Klatresenter AS' free cash flow (FCF).

In NOK	Historical				Forecast			
Year	2017	2018	2019	2020	2021	2022	2023	2024
NOPAT	1 336 963	1 231 601	5 981 247	393 186	2 105 054	7 902 773	9 946 022	13 190 246
Depreciation	813 041	1 783 254	2 023 448	720 324	770 746	2 619 359	2 933 682	3 373 735
Gross cash flow	2 150 004	3 014 855	8 004 695	1 113 510	2 875 801	10 522 132	12 879 705	16 563 981
Decrease (increase) in working capital	4 869 144	-546 839	-3 753 902	-456 661	9 428	330 647	54 218	75 905
Less: Capital expenditures	-10 155 911	-1 712 476	-2 546 936	-776 639	-1 165 057	-3 026 682	-3 354 447	-3 808 385
Decrease (increase) in capitalized operating leases	-587 433	-469 108	-346 095	-218 231	-219 256	-220 285	-221 320	-222 359
Investments in acquired intangibles	-56 775	0	0	0	0	0	0	0
Free cash flow to investors (FCF)	-3 780 971	286 432	1 357 762	-338 020	1 500 916	7 605 812	9 358 156	12 609 143

As a result of the Covid-19 pandemic, this thesis expects a significant reduction in FCF from NOK 1,36 million in 2019 to negative NOK 0,34 million in 2020. Then it is expected that FCF will have a strong growth from 2021, ending on NOK 12,61 million in 2024.

Exhibit 25: Short-term forecast of Oslo Klatresenter AS' ROIC.

In %	Historical				Forecast			
Year	2017	2018	2019	2020	2021	2022	2023	2024
Operating margin (% of revenue)								
EBITA/Revenue (operating margin)	13,91 %	7,12 %	24,34 %	4,85 %	24,26 %	26,80 %	30,12 %	34,74 %
Cost of services and goods sold	8,38 %	8,64 %	9,93 %	8,00 %	8,30 %	10,50 %	10,50 %	10,50 %
Selling and general expenses	33,56 %	34,25 %	26,67 %	53,00 %	40,00 %	28,00 %	25,50 %	25,50 %
Other operating expenses, adjusted	37,73 %	42,05 %	32,63 %	59,28 %	49,44 %	27,77 %	26,95 %	22,33 %
Depreciation	6,43 %	7,94 %	6,42 %	6,93 %	6,93 %	6,93 %	6,93 %	6,93 %
Revenue/invested capital (% of revenue)*								
Invested capital/revenue	393,08 %	234,61 %	176,15 %	559,56 %	528,95 %	156,84 %	141,08 %	123,88 %
Operating working capital	-19,03 %	-20,46 %	-7,76 %	-3,27 %	-1,05 %	-0,76 %	-1,13 %	-1,12 %
Fixed assets	53,50 %	50,77 %	36,92 %	114,68 %	109,21 %	33,19 %	30,62 %	27,50 %
Capitalized operating leases	359 %	204 %	147 %	448 %	421 %	124 %	112 %	97 %
Revenue/invested capital without goodwill and acquired intangibles	0,25	0,43	0,57	0,18	0,19	0,64	0,71	0,81
Pre-tax ROIC	3,54 %	3,03 %	13,82 %	0,87 %	4,59 %	17,09 %	21,35 %	28,04 %
Operating cash tax rate	24,00 %	23,00 %	22,00 %	22,00 %	22,00 %	22,00 %	22,00 %	22,00 %
ROIC without goodwill and acquired intangibles	2,69 %	2,34 %	10,78 %	0,68 %	3,58 %	13,33 %	16,65 %	21,87 %
Goodwill and acquired intangibles as a % of capital	0,00 %	0,09 %	0,06 %	0,02 %	0,00 %	0,00 %	0,00 %	0,00 %
ROIC with goodwill and acquired intangibles	2,69 %	2,33 %	10,77 %	0,68 %	3,58 %	13,33 %	16,65 %	21,87 %

*Calculated using the year's average invested capital

ROIC is estimated to be 0,68% in 2020 and 3,58% in 2021. These poor performances are expected because of the negative impacts from the Covid-19 pandemic. From 2022, it is assumed that OKS AS can operate as normal again, resulting in a ROIC of 13,33%. Then the ROIC is expected to continue to grow, reaching 21,87% in 2024.

6.5.2 Long-term forecast

Exhibit 26: Long-term forecast of Oslo Klatresenter AS' free cash flow (FCF) and ROIC.

In %	Long-term forecast										CV
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Revenue growth	10,00 %	-9,80 %	-4,60 %	5,00 %	4,50 %	4,50 %	4,00 %	4,00 %	3,50 %	3,50 %	
EBITA margin	37,00 %	32,00 %	30,00 %	31,50 %	32,50 %	33,30 %	33,80 %	34,60 %	35,00 %	35,00 %	
Operating tax rate	22,00 %	22,00 %	22,00 %	22,00 %	22,00 %	22,00 %	22,00 %	22,00 %	22,00 %	22,00 %	
Revenue/invested capital	0,87	0,78	0,74	0,77	0,79	0,82	0,85	0,87	0,89	0,91	
After tax ROIC, excluding goodwill and acquired intangibles	25,25 %	19,50 %	17,27 %	18,85 %	20,12 %	21,33 %	22,30 %	23,50 %	24,36 %	24,97 %	

In NOK	Long-term forecast										CV
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Net revenue	53 552 634	48 302 335	46 080 427	48 384 448	50 561 749	52 837 027	54 950 508	57 148 529	59 148 727	61 218 933	
Operating EBITA	19 814 475	15 456 747	13 824 128	15 241 101	16 432 568	17 594 730	18 573 272	19 773 391	20 702 055	21 426 626	
Operating tax	-4 359 184	-3 400 484	-3 041 308	-3 353 042	-3 615 165	-3 870 841	-4 086 120	-4 350 146	-4 554 452	-4 713 858	
NOPAT	15 455 290	12 056 263	10 782 820	11 888 059	12 817 403	13 723 889	14 487 152	15 423 245	16 147 603	16 712 769	
FCF	13 870 057	9 645 010	8 626 256	9 510 447	10 253 923	10 979 112	11 589 722	12 338 596	12 918 082	13 370 215	
Invested capital	61 204 972	61 817 022	62 435 192	63 059 544	63 690 139	64 327 041	64 970 311	65 620 014	66 276 214	66 938 977	
Decrease (increase) in invested capital	-605 990	-612 050	-618 170	-624 352	-630 595	-636 901	-643 270	-649 703	-656 200	-662 762	

The revenue growth rates from 2025 to 2034 are taken from exhibit 19, and the operating tax rate is assumed to equal the 2019 level for the entire forecast period. Furthermore, it is expected that the EBITA margin will grow to 37,00% in 2025, before falling to 30,00% by 2027 because of the assumed decrease in revenue. From there, the EBITA margin is forecasted to grow until it reaches a steady-state of 35,0% in 2033. Revenue/invested capital is expected to follow the same pattern, decreasing from 0,87 in 2025 to 0,74 by 2027, and then growing till it reaches a steady-state of 0,91 in 2034.

Based on these assumptions, ROIC is expected to increase to 25,25% in 2025 before falling to 17,27% by 2027. After that, ROIC is expected to grow until it stabilizes at 24,97% in 2034. This thesis believes that 24,97% is a reasonable ROIC level based on (1) the historical ROIC levels of the climbing gym companies presented in this thesis, (2) expectations of growing interest for climbing, and (3) the assumption of a competitor establishing a new climbing gym on the west side of Oslo. Furthermore, FCF is expected to grow by 10% from 2024 to 2025. After that, FCF is expected to be at a constant 80% of NOPAT.

7. Estimation of capital cost

The last step before performing the valuation is to estimate OKS AS' cost of capital, which is defined as the expected return one could get from other investments with similar risk and term (Berk & DeMarzo, 2017). This chapter will, therefore, first present the framework for how to estimate the cost of capital. Thereafter comes the estimation of the cost of debt and the cost of equity. Then, this chapter ends with calculating the unlevered cost of equity.

7.1 Framework for estimating the cost of capital

Since this thesis finds it most suitable to use the APV model to value Oslo Klatresenter AS, the goal of chapter 7 becomes to find the unlevered cost of equity. To find this unlevered cost of equity, the cost of equity and the cost of debt must be estimated first. Then they can be used in the following formula to find the unlevered cost of equity (as described in chapter three):

$$k_u = \frac{E}{E + D} \times k_e + \frac{D}{E + D} \times k_d$$

Formula 22: The unlevered cost of equity.

Where:

- k_u = the unlevered cost of equity
- k_e = the cost of equity
- k_d = the cost of debt
- E = equity
- D = debt

7.1.1 Framework for the cost of equity

The cost of equity has historically proven to be challenging to calculate precisely. Though multiple models have been created for this purpose, none has proven to be reliable. Nevertheless, the cost of equity is an essential factor in the valuation process and a general method that can be used consists of two steps. **Firstly**, estimating the market return to find a reasonable benchmark for the expected return of individual companies. **Secondly**, adjusting the expected return for individual company risk, which can be done through the use of the

capital asset pricing model (CAPM), arbitrage pricing theory (APT) or the Fama-French three factor model (Koller et al., 2020).

The capital asset pricing model

According to the CAMP, “the expected rate of return on any security equals the risk-free rate plus the security’s beta times the market risk premium” (Koller et al., 2020, p. 331):

$$E(R_i) = r_f + \beta_i[E(R_m) - r_f]$$

Formula 23: Capital asset pricing model (CAPM).

Where:

- $E(R_i)$ = *expected return on security i*
- r_f = *risk – free rate*
- β_i = *security i’s sensitivity (beta) to the market portfolio*
- $E(R_m)$ = *expected return on the market portfolio*

Furthermore, CAPM claims that the market risk premium and risk-free rate are equal among all companies. This means that the beta is the only factor that varies, and it represents the share’s incremental risk (Koller et al., 2020).

Arbitrage pricing theory

According to APT, the expected return of a security is a function of different economical factors and how sensitive the company are to those factors (Kaldestad & Møller, 2017):

$$E(R_i) = r_f + \beta_1 F_1 + \beta_2 F_2 + \dots + \beta_k F_k$$

Formula 24: Arbitrage pricing theory (APT).

Where:

- $E(R_i)$ = *expected return on security i*
- r_f = *risk – free rate*
- β_1, β_2 and β_k = *beta coefficients for the economical factors*
- F_1, F_2 and F_k = *economical factors*

Fama-French three factor model

The Fama-French three factor model is equal to the CAPM in regressing a share's excess return on the excess market return. However, the Fama-French three factor model also takes the size and value risk factors into consideration when calculating the share's excess return. These factors are included by regressing excess return of small stocks over big stocks (SMB) and regressing excess return of high-book-to-market stocks over low-book-to-market stocks (HML). Thus, the model is as followed (Kaldestad & Møller, 2017; Koller et al., 2020):

$$E(R_i) = r_f + b_1[E(R_m) - r_f] + b_2 \times SMB_t + b_3 \times HML_t$$

Formula 25: Fama-French three factor model.

Where:

- $E(R_i)$ = expected return on security i
- r_f = risk – free rate
- $E(R_m)$ = expected return on the market portfolio
- b_1, b_2 and b_3 = beta coefficients for the factor regressions
- SMB_t = size premium (small – minus – big)
- HML_t = value premium (high – minus – low)

Choice of model

The Fama-French three factor model theoretically outperforms the CAPM model in predicting future returns, but unfortunately, regression results for a single company can be quite imprecise. Furthermore, the Fama-French three factor model has three different beta coefficients that rely on each other's estimations, making it impossible to create industry betas for them. Consequently, the Fama-French three factor model might not be the best choice to measure a single company's cost of equity. On the other hand, APT is theoretically extremely good but is highly difficult to implement in practice. One of the problems with this model is which factors to use. Therefore, in practice, CAPM has historically been the most used model to adjust the expected return for individual company risk (Koller et al., 2020). CAPM is also the model that Koller et al., (2020) recommend using. Based on this information, this thesis has chosen to use the CAPM model.

To use the CAPM model, it is first important to understand what the different parts of the model mean:

-
- The risk-free rate is a hypothetical rate of return of a security or portfolio that do not have any bankruptcy or default risk. The closest one gets to this risk-free rate in the real world are government bonds from financially strong and trustworthy governments. However, this raises the question of which type of government bonds to use. While there are many options, there seems to be a preference towards 10-year government bonds (Kaldestad & Møller, 2017).
 - The expected return on the market benchmark portfolio consists of the risk-free rate added together with the market risk premium. Consequently, the market risk premium is the expected return from the volatility of the market benchmark portfolio (Boyte-White, 2020).
 - Beta is a measure of an individual security's risk relative to the market benchmark portfolio and how exposed said security is to the general market risk (Kaldestad & Møller, 2017). When the beta is one, it means the security is highly correlated with the benchmark. If the beta is higher than one, it means that the security is more volatile than the benchmark. In the same way, a beta value of less than one indicates that the security is less volatile than the benchmark. Lastly, a negative beta value means that the security is inversely correlated to the benchmark (Kenton, 2021).

7.1.2 Framework for the cost of debt

Kaldestad and Møller (2017) recommend three different methods for estimating a company's cost of debt: (1) using the interest rate the company is currently paying, (2) using the interest rate of the company's publicly traded bonds, or (3) creating a synthetic credit rating.

The interest rate the company is currently paying

It is normally possible to find the interest rate of a company's loans from its financial statements. This interest rate can be a usable estimate for the future if there are few indications that important factors for loan agreements have changed since the original loans were taken (Kaldestad & Møller, 2017).

The interest rate of the company's publicly traded bonds

Some companies have publicly traded bonds to finance their debt. If this is the case, it is easy to calculate the cost of debt by looking at (or calculating) the bond's yield to maturity. However, to do this the bonds ought to have a long time to maturity and not contain any bond-like elements (e.g. convertible bonds) (Kaldestad & Møller, 2017).

Creating a synthetic credit rating

It is possible to estimate the market-interest rate a company faces by (1) estimating the company's credit rating and (2) see which yield to maturity it is on company long-term option free bonds with the same credit rating (Kaldestad & Møller, 2017; Koller et al., 2020). To estimate the credit rating, one can use key corporate rating criteria like EBIT divided by gross interest expenses. Credit rating agencies publish these criteria. The company's estimated credit rating should be further adjusted if there are any qualitative factors that are not reflected through the key criteria. Governmental ownership, for example, is positive for the credit rating (Kaldestad & Møller, 2017).

7.2 Estimating the cost of debt

Using the interest rate the company currently is paying is generally an imprecise estimate, and important loan factors for OKS AS has clearly changed during the first few years of operations. Furthermore, OKS AS does not have any publicly traded bonds to finance its debt. Thus, creating a synthetic credit rating might seem like the best option. However, the forecasted long-term debt of OKS AS only consists of capitalized operating leases. Therefore, this thesis has concluded that the best option is to continue using the yield to maturity on 10-year high-quality market corporate bonds of 2,72% as of the 2nd of May 2021, as discussed in subchapter 5.3.1 (FRED Economic Data, 2021).

7.3 Estimating the cost of equity

7.3.1 Estimating the market return

While there are different methods to estimate the risk-free rate and market risk premium, this thesis finds it most reliable to use the numbers presented in PWC's yearly examination of the risk premium in the Norwegian market. This is a comprehensive examination based on individual responses from 151 members of the Norwegian Financial Analysts Association (NFF). Furthermore, the examination was released in December 2020, indicating that aspects of Covid-19 have been taken into consideration when estimating the factors.

According to PWC (2020), the weighted average market risk premium stated by the examination's respondents was 4,8% in 2020, and the majority of the respondents use the yield

to maturity on 10-year government treasury bonds as the risk-free rate. Thus, this thesis has chosen to use the yield to maturity on 10-year U.S treasury bonds as the risk-free rate, which was 1,65% on the 2nd of May 2021, and the stated weighted market risk premium (YCharts, 2021). By using these two numbers, the expected market return is estimated to be 6,45%.

7.3.2 Estimating Oslo Klatresenter AS' risk

Estimating a company's beta is generally an imprecise process, which is why Koller et al., (2020) recommends using the industry beta instead of the company beta in the valuation process. To estimate the industry beta, it is necessary to adjust the peer companies' equity betas for the individual companies' capital structure. In other words, the equity betas must be recalculated to unlevered betas that will be used to create the unlevered industry beta. Then, this unlevered industry beta is used to calculate OKS AS equity beta based on OKS AS capital structure. To change between equity- and unlevered betas, one can use the following formula when assuming that the tax shields have the same risk as the operating assets (Koller et al., 2020):

$$\beta_u = \frac{\beta_e + \frac{D}{E} \times \beta_d}{1 + \frac{D}{E}}$$

Formula 26: Unlevered beta when tax shields have the same risk as operating assets.

Where:

- β_u = the unlevered beta
- β_e = the equity beta
- β_d = the debt beta
- D = debt
- E = equity

In the calculations of betas, this thesis adopts the method of using a debt beta of 0,15, which is the implied debt "beta based on the spread between investment-grade corporate debt and government debt" (Koller et al., 2020, p. 336). Furthermore, Koller et al., (2020) recommend following a few guidelines to make the equity- and unlevered betas as precise as possible:

- “The measurement for raw regression should include at least 60 data points” (Koller et al., 2020, p. 333).
- “Raw regression should be based on monthly returns” (Koller et al., 2020, p. 333).
- “Company stock return should be regressed against a value-weighted, well-diversified market portfolio” (Koller et al., 2020, p. 333).

Unfortunately, neither OKS AS nor any of the peers presented in this thesis are publicly traded. Furthermore, this thesis has not managed to find any other climbing gym companies that are publicly traded on any stock exchange. Thus, it is impossible to create a beta for the climbing gym industry. However, climbing gyms are a part of the fitness industry. Therefore, this thesis has concluded that the most reasonable peer group to calculate an industry beta from is the regular fitness gym industry. It is worth noticing that the regular fitness gym industry beta is likely to be a little lower than that of the climbing gym industry. This is because climbing gyms likely have more one-time customers and children birthday parties, causing the climbing gyms’ revenue to most likely be more volatile than the revenue of regular fitness gyms. Nevertheless, this thesis concludes that the unlevered industry beta of regular fitness gyms will be the best proxy to use for further calculations.

The unlevered industry beta calculations for the regular fitness gym industry still run into the problem of it being a limited number of fitness gym companies that have been publicly traded for at least five years. Therefore, this thesis has been forced to use fitness gym companies from Europe and the USA to estimate an unlevered industry beta, instead of only using Norwegian or Scandinavian peer companies. Furthermore, it has been decided to use only 58 months of data points instead of 60. By only using 58 months, the industry beta can be calculated based on four companies instead of three. Since the industry beta will consist of cross-continental companies, this thesis has chosen to use the MSCI World Index as the benchmark portfolio. Based on all these criteria, the peer betas and the unlevered industry beta are as follows:

Exhibit 27: Unlevered industry beta. Source: Bloomberg LP.

	Equity beta	Adjustment	Unlevered beta
Basic-Fit NV	1,602	-0,636	0,966
Gym Group Plc	1,404	-0,589	0,815
Planet Fitness Inc.	1,620	-0,327	1,293
Town Sports International Holdings Inc.	2,125	-1,931	0,194
Average unlevered industry beta			0,817
Median unlevered industry beta			0,891

Statistically, the average unlevered industry beta should have the least estimation errors. However, small sample averages can be heavily influenced by outliers, which is why Koller et al., (2020) recommends using the median beta instead. With only four companies in the sample of betas from peer companies, this thesis has chosen to follow the recommendation. Thus, by using the median unlevered industry beta and assuming a constant capital structure equal to the 2024 forecast, OKS AS equity beta is calculated to be 1,965:

Exhibit 28: Oslo Klatresenter AS' equity beta.

Forecast year	2024
Unlevered beta	0,891
Debt beta	0,150
Debt and debt equivalents	60 345 573
Total equity and its equivalents	41 633 317
Adjustment	1,074
Equity beta	1,965

7.3.3 Estimating Oslo Klatresenter AS' cost of equity

Based on the information from subchapter 7.3.1 and 7.3.2, Oslo Klatresenter AS' cost of equity is calculated to be 11,08% in exhibit 29 by using the CAPM model.

Exhibit 29: Oslo Klatresenter AS' cost of equity.

Forecast year	2024
Risk-free rate	1,65 %
Market risk premium	4,80 %
Equity beta	1,965
Cost of equity	11,08 %

7.4 Estimating the unlevered cost of equity

Having estimated the cost of debt and the cost of equity, it is now possible to calculate the unlevered cost of equity. Using the 2024 forecasted capital structure of OKS AS in the calculation, this thesis estimates OKS AS' unlevered cost of equity to be 6,14% (as seen in exhibit 30).

Exhibit 30: Oslo Klatresenter AS' unlevered cost of equity.

Forecast year	2024
Debt	60 345 573
Equity	41 633 317
Cost of debt	2,74 %
Cost of equity	11,08 %
Unlevered cost of equity	6,14 %
Small stock premium	4,50 %
Adjusted unlevered cost of equity	10,64 %

Though this thesis does not use the Fama-French three factor model, there is a general agreement in the Norwegian Financial Analysts Association that one ought to use a small stock premium. For the size of OKS AS, the median recommendation is 4% to 5%, with an average recommendation of 4,8% (PWC, 2020). This thesis has decided to follow the recommendation and uses 4,5% as the small stock premium (as seen in exhibit 30). Since the small stock premium recommendation is unaffected by capital structure, this thesis has added it on top of the unlevered cost of equity. Consequently, the adjusted unlevered cost of equity is 10,64%.

8. Valuation of Oslo Klatresenter AS

Having built the foundation for the valuation of OKS AS in the previous chapters, it is now time to do the actual valuation. As discussed, this will be done by using the adjusted present value (APV) model (presented in chapter 3.1.3) because OKS AS capital structure is forecasted to change throughout the forecast period. Thus, this chapter will start by using the APV model to find OKS AS' fair market value as of the 2nd of May 2021. Following this, the chapter ends with a sensitivity analysis of the most important factors used in the valuation model.

8.1 Adjusted present value valuation

The first step in the APV valuation model is to estimate the value of operation. Exhibit 31 shows the forecasted value of FCF-s and interest tax shields generated by OKS AS. From 2020 to 2033, these forecasts are done for each year and discounted by the adjusted unlevered cost of equity rate of 10,64%. The discount factor is not used for 2020 because this valuation is done in 2021. After 2033, the continued value is calculated with the adjusted unlevered cost of equity and an assumed constant growth rate of 3,5%. These calculations give a present value of operations of NOK 98,08 million. However, this value assumes that the FCF only occurs at the end of the year, which is not the case. A mid-year adjustment factor of 1,052 ($1,052 = (1+10,64\%)^{1/2}$) is used to adjust for the assumption that FCF comes throughout the entire year. This leads to an estimated value of OKS AS operations, as of the 2nd of May 2021, of NOK 103,06 million:

Exhibit 31: Oslo Klatresenter AS' value of operations.

In NOK Forecast year	FCF	Interest tax shield (ITS)	Discount factor at 10,64%	Present value FCF	Present value of ITS
2020	-338 020	313 920	100,00 %	-338 020	313 920
2021	1 500 916	281 241	89,36 %	1 341 145	251 304
2022	7 605 812	276 614	79,84 %	6 072 736	220 858
2023	9 358 156	307 742	71,34 %	6 676 496	219 556
2024	12 609 143	307 268	63,75 %	8 038 283	195 882
2025	13 870 057	309 301	56,96 %	7 900 879	176 189
2026	9 645 010	311 348	50,90 %	4 909 297	158 476
2027	8 626 256	73 403	45,48 %	3 923 362	33 385
2028	9 510 447	63 899	40,64 %	3 865 061	25 969
2029	10 253 923	68 569	36,31 %	3 723 616	24 900
2030	10 979 112	71 958	32,45 %	3 562 555	23 349
2031	11 589 722	74 993	28,99 %	3 360 367	21 744
2032	12 338 596	77 052	25,91 %	3 196 678	19 963
2033	12 918 082	79 843	23,15 %	2 990 547	18 484
Continuing value	177 960 656	1 624 460	20,69 %	36 812 564	336 032
Present value				96 035 567	2 040 009
Present value of free cash flow					96 035 567
Mid-year adjustment factor					1,052
Adjusted present value of free cash flow					101 017 768
Present value of interest tax shield					2 040 009
Present value of operations, adjusted					103 057 777

The next step is to calculate OKS AS' gross enterprise value. This is done by adding back the value of non-operating assets. In the case of OKS AS this is only the excess cash, giving a gross enterprise value of NOK 113,16 million:

Exhibit 32: Oslo Klatresenter AS' gross enterprise value.

In NOK	Estimated value
Value of the core operations	103 057 777
Excess cash	10 106 087
Gross enterprise value	113 163 864

Then OKS AS equity value is estimated by removing non-equity claims from the gross enterprise value, which gives an equity value of NOK 59 659 958. Finally, this equity value is divided by OKS AS' number of shares outstanding, giving a value per share of NOK 5 638,94 as of the 2nd of May 2021:

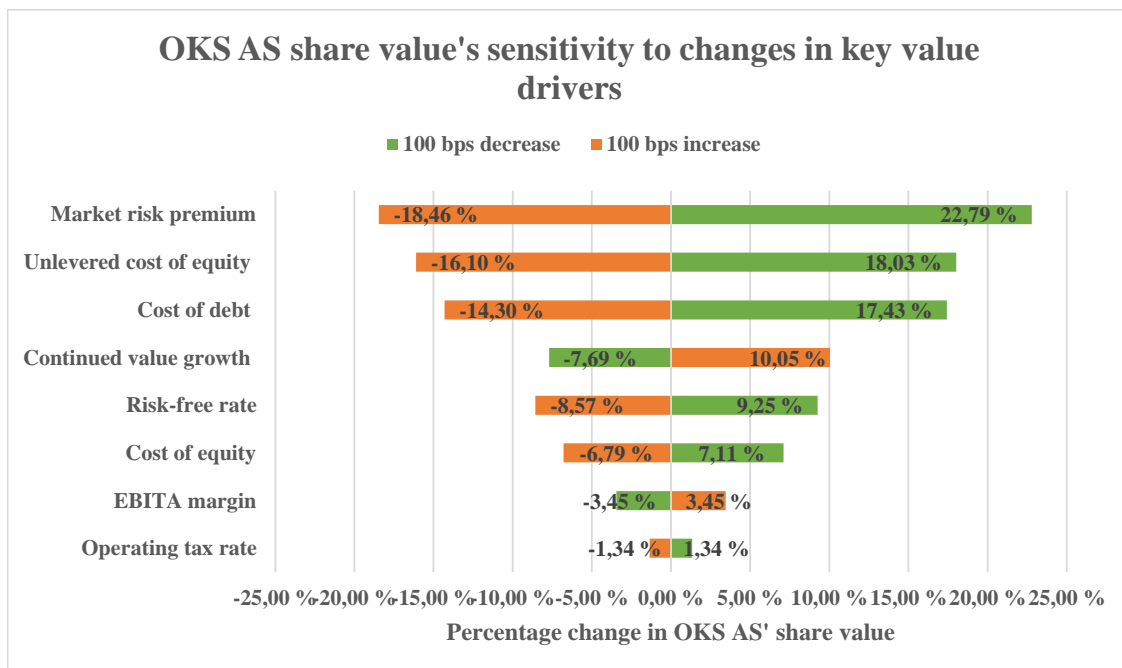
Exhibit 33: Oslo Klatresenter AS' equity value and value per share.

In NOK	Estimated value
Deferred tax	-532 782
Other short-term debt	-6 497 520
Capitalized operating leases	-46 473 604
Equity value	59 659 958
Shares outstanding	10 580
Value per share	5 638,94

8.2 Sensitivity analysis

There has been taken many assumptions in the estimation process of OKS AS' value per share. Therefore, it is important to do a sensitivity analysis to assess how changes in some of the most important assumptions affect the value per share. The sensitivity analysis can be done by measuring the change in the estimated share value that occurs because of a specific change in the assumptions. In this valuation, it is the unlevered cost of equity, EBITA margin, revenue growth and the marginal tax rate that are the most critical assumption factors in the long-term. Thus, these are the factors that will be looked at in this sensitivity analysis. It is essential to notice that the unlevered cost of equity consists of both the cost of debt and the cost of equity. The cost of equity further consists of the risk-free rate, the market risk premium, and the equity beta. However, the equity beta will not be analysed because it also is dependent on the company's capital structure.

Graph 18 shows how a 100 bps decrease or increase in the individual key value drivers in the long-term and continuing value period changes OKS AS' value per share. It is important to notice that the different drivers do not have the same probability of a 100 bps change. However, to better understand which drivers OKS AS' estimated share value is most sensitive to, a 100 bps change is used on all the key value drivers.



Graph 18: OKS AS share value's sensitivity to a 100 bps decrease or increase in key value drivers in the long-term and the continuing value period.

Each driver in the sensitivity analysis explained in detail:

- Change in the market risk premium has the greatest negative and positive effect on OKS AS' estimated share value. A 100 bps decrease from 4,8% to 3,8% will increase the value per share by 22,79% to NOK 6 924,00. A 100 bps increase to 5,8% will reduce the value per share by 18,46% to NOK 4 597,77.
- The unlevered cost of equity is forecasted to be 6,14%. A 100 bps reduction in this factor to 5,14% will increase OKS AS' value per share by 18,03% to NOK 6 655,36. A 100 bps increase to 7,14% will decrease the value per share by 16,10% to NOK 4 731,33. It is important to notice that this also will be the case for a 100 bps decrease or increase in the small stock premium, as this premium is added directly to the unlevered cost of equity.
- The cost of debt is forecasted to be 2,74% for the entire forecast period and the continued value period. A 100 bps reduction in this factor to 1,74% will increase OKS AS' value per share by 17,43% to NOK 6 621,85, while a 100 bps increase to 3,74% will reduce the value per share by 14,30% to NOK 4 832,36.
- The continued value growth rate of revenue is forecasted to be 3,5%. A 100 bps reduction of this factor to 2,5% will reduce OKS AS' value per share by 7,69% to NOK 5 205,28. A 100 bps increase to 4,5% will increase the value per share by 10,05% to NOK 6 205,76.
- The risk-free rate is forecasted to be 1,65% for the entire long-term forecast period and the continued value period. A 100 bps reduction in this factor to 0,65% will increase OKS AS' value per share by 9,25% to NOK 6 160,80. A 100 bps increase to 2,65% will reduce the value per share by 8,57% to NOK 5 155,49.
- The cost of equity is forecasted to be 11,08%. A 100 bps decrease in this factor to 10,08% will increase OKS AS' value per share by 7,11% to NOK 6 040,03. A 100 bps increase to 12,08% will reduce the value per share by 6,79% to NOK 5 255,96.
- The EBITA margin is forecasted to change throughout the long-term forecast period, ending up at 35% in the continuing value period. A 100 bps decrease of this factor in each year of the long-term forecast and the continuing value period will reduce OKS AS' value per share by 3,45% to NOK 5 444,41, while a 100 bps increase will increase the value per share by 3,45% to NOK 5 833,47.
- The operating tax rate is forecasted to be 22% in the entire long-term forecast period and the continuing value period. A 100 bps decrease of this factor to 21% will increase

OKS AS' value per share by 1,34% to NOK 5 714,74. A 100 bps increase to 23% will reduce the value per share by 1,34% to NOK 5 563,14.

9. Market-based valuation of Oslo Klatresenter AS

This chapter will do several market-based valuations of OKS AS to supplement the primary APV valuation. The chapter starts by selecting companies that will be used to create industry average multiples. After that comes the selection of which average multiples to use in the valuations. Following this, the market-based valuations are done with the selected average multiples. Then this chapter ends with a final weighted market-based valuation of OKS AS, which will be computed by using the estimated stock values of the different average multiples of the most reliable year.

9.1 Selecting comparable companies

In chapter 3.2.1, this thesis discussed the factors that should be considered when selecting comparable companies for a multiple analysis. The most important of these was that the companies operate within the same industry as the company that is to be valued. Unfortunately, there are no climbing gym companies that are publicly traded, and this thesis was not able to find any reason transaction of non-publicly traded climbing gym companies. Consequently, the multiple analysis of OKS AS fails to meet the demand of the most essential factor. Nevertheless, by using companies from the regular gym industry, a multiple analysis can still give some insight into whether the APV valuation of OKS AS seems reasonable.

All the publicly traded gym companies are much bigger than OKS AS, and they operate in multiple geographical locations. Both these factors further decrease the reliability of the multiple analysis. That being said, it is possible to limit the comparable gym companies to those that operate in Europe. This leaves SATS ASA, Actic Group AB, Basic-Fit NV and Gym Group Plc as the possible candidates. It is reasonable to exclude Basic-Fit NV from these four companies because of its drastically larger market capitalization of NOK 24 233 million. That leaves SATS ASA with a market capitalization of NOK 3 942 million, Actic Group AB with a market capitalization of NOK 289 million, and Gym Group Plc with a market capitalization of NOK 4 708 million (Bloomberg LP, 2021). Out of these three companies, only SATS ASA and Actic Group AB operate gyms in Norway (Actic, n.d.; SATS, n.d.-b; The Gym Group Plc, n.d.). Therefore, this thesis has concluded that SATS ASA and Actic Group AB are the most suitable companies to use in a market-based valuation of OKS AS.

9.2 Selection of multiples

As discussed in chapter 3.2.2, all multiples have different advantages and disadvantages in a valuation process. It is, therefore, crucial to consider which multiples one ought to use and why. Based on OKS AS and its peers, this thesis believes it is most suitable to use the four different multiples EV/EBITDA, EV/EBITA, P/B, and EV/Sales.

The EV/EBITDA multiple makes it possible to compare the underlying operations, and by measuring earnings before depreciation it excludes differences that occur because of different accounting principles regarding depreciation (Kaldestad & Møller, 2017). This multiple is highly usable because OKS AS uses a different accounting standard than SATS ASA and Actic Group AB. However, this method also has a downside because it does not take differences in risk and capital expenditures into consideration (Kaldestad & Møller, 2017). This weakness can lead to a wrong valuation because OKS AS is a newly established and small company, making it a higher risk company than its peers.

The EV/EBITA multiple, on the other hand, is more vulnerable to differences in accounting principles regarding depreciation. However, by including depreciation, it partly takes future capital expenditure into consideration (Koller et al., 2020). This can be highly useful in the gym industry, where the fitness equipment continuously needs to be replaced. EV/EBITA is also one of the multiples Koller et al., (2020) recommends relying the most on.

Next, the P/B multiple is also vulnerable to differences in accounting principles, but it takes differences in risk into consideration (Kaldestad & Møller, 2017). This inclusion makes it a suitable multiple to use in combination with EV/EBITDA and EV/EBITA. Furthermore, the P/B multiple can be a good reasonableness check for the estimated valuation in industries with a high proportion of material assets, which is the case for the gym industry (Kaldestad & Møller, 2017).

The EV/Sales multiple is considered a highly rough comparison multiple, and it is unreliable if the comparing companies have very different margins (Kaldestad & Møller, 2017). However, neither OKS AS, SATS ASA, nor Actic Group AB operates in the high-end gym market. Thus, their margins are not too different. Furthermore, the EV/Sales multiple can give good indications about a company's potential (Kaldestad & Møller, 2017).

Lastly, it must be decided between using historical or forward multiples in the market-based valuation. The main advantage of forward multiples is that they are consistent with the valuation principle of a company's value being dependent on the present value of its future FCF-s. In addition to this advantage, empirical evidence shows that forward multiples are more accurate in predicting a company's value than historical multiples (Koller et al., 2020). Consequently, this thesis will rely more on the forward multiples than historical multiples in the market-based valuation. Furthermore, this thesis will focus more on the forward multiples after 2021 because the Covid-19 pandemic has turned 2020 and 2021 into extraordinary years.

9.3 Market-based valuation

The multiples in the following subchapters have been collected or calculated through the use of Bloomberg LP (2021), SATS ASA (2020, 2021) annual reports and Nordnet (n.d.)

9.3.1 EV/EBITDA multiple valuation

Exhibit 34: Oslo Klatresenter AS' estimated value per share using average historical and forward peer EV/EBITDA multiples. Source: Bloomberg LP, SATS ASA annual reports 2019 to 2020 and Nordnet n.d.

OKS AS' value per share using average peer EV/EBITDA multiple						
In NOK	Historical			Forward		
	EV/EBITDA 2019	EV/EBITDA 2020	EV/EBITDA 2021	EV/EBITDA 2022	EV/EBITDA 2023	
SATS ASA	5,53	9,16	7,87	5,27	6,56	
Actic Group AB	6,76	13,93	5,41	4,50	4,18	
Average peer multiple	6,15	11,55	6,64	4,89	5,37	
	Historical		Forward			
Year	2019	2020	2021	2022	2023	
Average peer multiple	6,15	11,55	6,64	4,89	5,37	
EBITDA OKS AS	9 691 714	1 224 409	3 469 534	12 751 120	15 684 993	
Enterprise value	59 573 365	14 136 178	23 046 205	62 292 407	84 277 036	
Deferred tax	-532 782	-532 782	-532 782	-532 782	-532 782	
Other short-term debt	-6 497 520	-6 497 520	-6 497 520	-6 497 520	-6 497 520	
Capitalized operating leases	-46 473 604	-46 473 604	-46 473 604	-46 473 604	-46 473 604	
Equity value*	6 069 459	-39 367 729	-30 457 702	8 788 501	30 773 130	
Share outstanding	10 580	10 580	10 580	10 580	10 580	
Value per share*	573,67	-3 720,96	-2 878,80	830,67	2 908,61	

*Negative equity- and share values are technically zero unless there are any other external guarantee for OKS AS' debt.

Exhibit 34 shows OKS AS' estimated value per share when using the average historical and forward EV/EBITDA multiples of its peers. The multiple gives the enterprise value of OKS AS. Thus, other non-equity claims must be removed to find the equity value. The years 2020 and 2021 are anomalies that technically says OKS AS' equity- and share value is zero because OKS AS is a stock company. However, if some other company or private person has guaranteed for OKS AS debt, the equity- and share value will indeed be negative these years.

Nevertheless, the anomaly values of 2020 and 2021 result from OKS AS' low forecasted EBIDTA during the Covid-19 pandemic. When operations are assumed to be normal again in 2022, the estimated value per share is NOK 830,67. The 2023 multiple, on the other hand, estimates OKS AS' value per share to be NOK 2 908,61.

9.3.2 EV/EBITA multiple valuation

Exhibit 35: Oslo Klatresenter AS' estimated value per share using average historical and forward peer EV/EBITA multiples. Source: Bloomberg LP, SATS ASA annual reports 2019 to 2020 and Nordent n.d.

OKS AS' value per share using average peer EV/EBITA multiple						
In NOK	Historical			Forward		
	EV/EBITA 2019	EV/EBITA 2020	EV/EBITA 2021	EV/EBITA 2022	EV/EBITA 2023	
SATS ASA	17,53	63,72	61,11	15,67	20,63	
Actic Group AB	24,64	29,66	6,52	5,34	4,96	
Average peer multiple	21,09	46,69	33,81	10,50	12,80	
	Historical		Forward			
Year	2019	2020	2021	2022	2023	
Average peer multiple	21,09	46,69	33,81	10,50	12,80	
EBITA OKS AS	7 668 266	504 085	2 698 787	10 131 760	12 751 311	
Enterprise value	161 710 305	23 533 489	91 257 472	106 405 775	163 195 101	
Deferred tax	-532 782	-532 782	-532 782	-532 782	-532 782	
Other short-term debt	-6 497 520	-6 497 520	-6 497 520	-6 497 520	-6 497 520	
Capitalized operating leases	-46 473 604	-46 473 604	-46 473 604	-46 473 604	-46 473 604	
Equity value*	108 206 399	-29 970 418	37 753 565	52 901 868	109 691 194	
Share outstanding	10 580	10 580	10 580	10 580	10 580	
Value per share*	10 227,45	-2 832,74	3 568,39	5 000,18	10 367,79	

*Negative equity- and share values are technically zero unless there are any other external guarantee for OKS AS' debt.

From exhibit 35, one can see OKS AS' estimated value per share when using the average historical and forward EV/EBITA multiples of OKS AS' peers. Like the valuation with the EV/EBITDA multiple, the 2020 EV/EBITA multiple estimates OKS AS' value per share to be negative. As discussed, this negative value technically means a value of zero unless there is any form of other guarantees for OKS AS' debt. The estimated value per share turns positive and gradually increases with each year's forward multiple from 2021. In 2023 the value per share is estimated to be NOK 10 367,79. This value is 1,37% higher than when using the historical multiple of 2019, which gives a value per share of NOK 10 227,45.

9.3.3 P/B multiple valuation

Exhibit 36: Oslo Klatresenter AS' estimated value per share using average historical and forward peer P/B multiples. Source: Bloomberg LP, SATS ASA annual reports 2019 to 2020 and Nordent n.d.

OKS AS' value per share using average peer P/B multiple						
In NOK	Historical			Forward		
	P/B 2019	P/B 2020	P/B 2021	P/B 2022	P/B 2023	
SATS ASA	3,15	2,32	5,07	4,05	3,15	
Actic Group AB	1,00	1,08	1,06	0,98	0,90	
Average peer multiple	2,076	1,700	3,069	2,514	2,027	
Year	Historical		Forward			
	2019	2020	2021	2022	2023	
Average peer multiple	2,08	1,70	3,07	2,51	2,03	
Equity and equity equivalents	14 410 926	13 540 127	14 373 644	21 000 269	29 688 595	
Equity value	29 921 231	23 018 215	44 107 683	52 792 576	60 174 329	
Shares outstanding	10 580	10 580	10 580	10 580	10 580	
Value per share	2 828,09	2 175,63	4 168,97	4 989,85	5 687,55	

Exhibit 36 shows OKS AS' estimated value per share when using the average historical and forward P/B multiples of OKS AS' peers. Since P/B is a balance sheet multiple, the Covid-19 pandemic does not as heavily damage the estimated value of OKS AS' value per share in 2020 and 2021 as when using income statement multiples. Nevertheless, 2020 still has the lowest estimated value per share of NOK 2 175,63. The 2023 P/B multiple estimates the value per share to be NOK 5 687,55.

9.3.4 EV/Sales multiple valuation

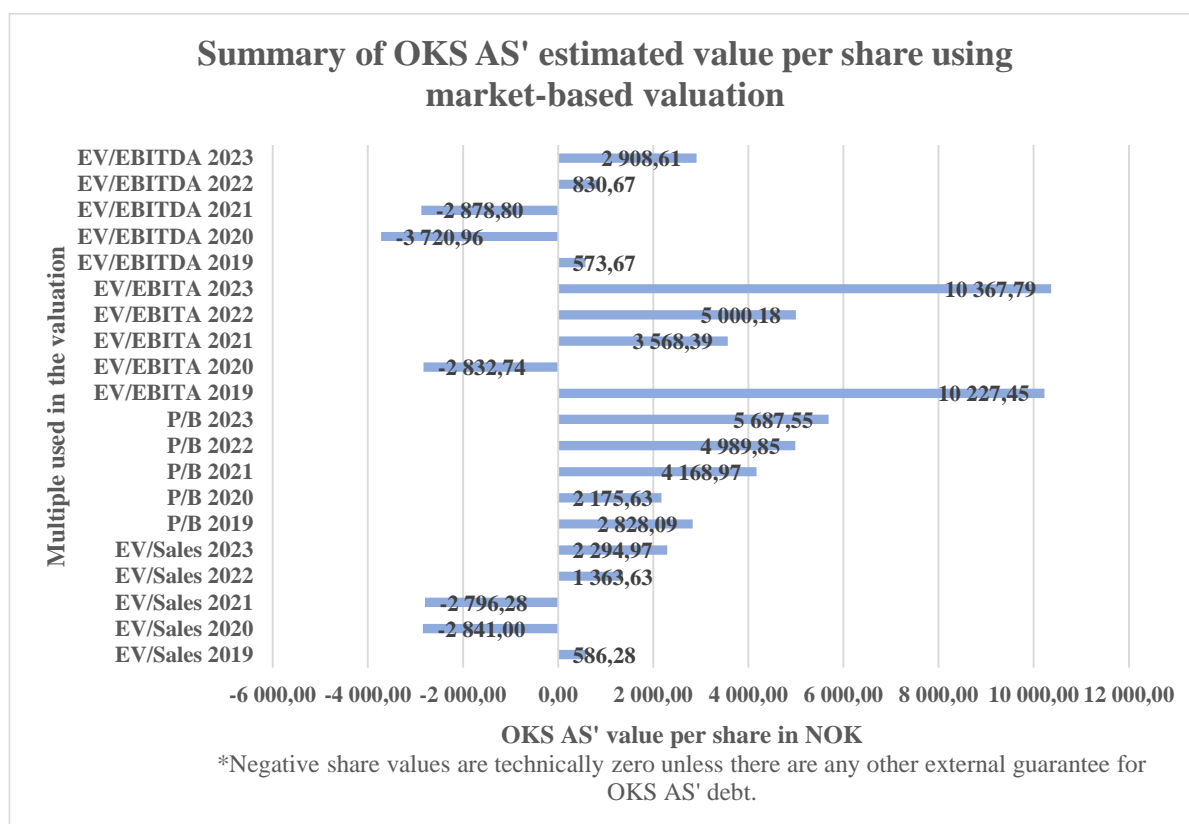
Exhibit 37: Oslo Klatresenter AS' estimated value per share using average historical and forward peer EV/Sales multiples. Source: Bloomberg LP, SATS ASA annual reports 2019 to 2020 and Nordent n.d.

OKS AS' value per share using average peer EV/Sales multiple						
In NOK	Historical			Forward		
	EV/Sales 2019	EV/Sales 2020	EV/Sales 2021	EV/Sales 2022	EV/Sales 2023	
SATS ASA	2,06	2,94	2,51	1,99	2,20	
Actic Group AB	1,73	1,57	1,79	1,60	1,47	
Average peer multiple	1,896	2,256	2,151	1,797	1,837	
Year	Historical		Forward			
	2019	2020	2021	2022	2023	
Average peer multiple	1,90	2,26	2,15	1,80	1,84	
Sales OKS AS	31 498 585	10 394 533	11 122 150	37 798 302	42 334 098	
Enterprise value	59 706 725	23 446 141	23 919 297	67 931 108	77 784 672	
Deferred tax	-532 782	-532 782	-532 782	-532 782	-532 782	
Other short-term debt	-6 497 520	-6 497 520	-6 497 520	-6 497 520	-6 497 520	
Capitalized operating leases	-46 473 604	-46 473 604	-46 473 604	-46 473 604	-46 473 604	
Equity value*	6 202 819	-30 057 765	-29 584 610	14 427 202	24 280 766	
Share outstanding	10 580	10 580	10 580	10 580	10 580	
Value per share*	586,28	-2 841,00	-2 796,28	1 363,63	2 294,97	

*Negative equity- and share values are technically zero unless there are any other external guarantee for OKS AS' debt.

Exhibit 37 shows OKS AS' estimated value per share when using the average historical and forward EV/Sales multiples of OKS AS' peers. Like the EV/EBITDA multiples, the EV/Sales multiples estimates a negative value of OKS AS' equity- and share value in 2020 and 2021, which technically means a value of zero these years unless there is any form of other external guarantees for OKS AS' debt. However, when operations are assumed to be back to normal in 2022 and 2023, OKS AS' estimated value per share using the EV/Sales multiples is NOK 1 363,63 and NOK 2 294,97, respectively.

9.3.5 Summary of the multiple valuations



Graph 19: Oslo Klatresenter AS' estimated value per share using market-based valuation multiples.

9.4 Weighted market-based valuation

The two final steps in the market-based valuation are (1) deciding which year's multiple valuations that best represent the current value of OKS AS, and (2) deciding how to weigh the different multiple valuations of the selected year to estimate OKS AS' final weighted market-based value per share.

All the different multiples analysed have estimated OKS AS' value per share to be higher the further the forward multiples have gone into the future. This trend is likely a result of forecasted higher growth in the market for climbing gyms than in the market for regular gyms. Since the multiples used in the valuations are based on regular gyms, they do not take this high expected growth of the climbing gym market into consideration. Consequently, the estimated value of OKS AS' value per share is highest using the 2023 multiples because the higher forecasted growth has partly been taken into consideration through the estimations of OKS AS forecasted EBITDA, EBITA, equity and equity equivalents, and sales. This thesis, therefore, finds it most reasonable to use the 2023 multiple valuations in the estimation of OKS AS' value.

It is essential to consider the weaknesses and strengths of the different multiples when deciding how to weigh the estimated 2023 values. This thesis believes that the combination of multiples that have been estimated largely makes up for each other's weaknesses through their different strengths. Therefore, it seems reasonable to weigh them equally. However, since Koller et al., (Koller et al., 2020) argues that the EV/EBITA multiple normally gives the most precise relative valuation, this thesis has decided to weigh it slightly heavier than the other multiples. Based on the weight ratios presented in exhibit 38, OKS AS' value per share on the 2nd of May 2021 is calculated to be NOK 5 516,85.

Exhibit 38: Oslo Klatresenter AS' weighted market-based value per share as of the 2nd of May 2021, using 2023 multiples.

OKS AS' weighted market-based value per share			
Multiple	Estimated value 2023	Weight ratio	Weighted value
EV/EBITDA	2 908,61	0,24	698,07
EV/EBITA	10 367,79	0,28	2 902,98
P/B	5 687,55	0,24	1 365,01
EV/Sales	2 294,97	0,24	550,79
OKS AS' weighted market-based value per share			5 516,85

The three most significant differences between the companies used for the multiple analysis and OKS AS are the size, the risk, and the assumed future market growth. The risk from the capital structure is partly taken into consideration by the P/B multiple. However, the risk from OKS AS being a substantially smaller company is not considered in any of the multiples. This can indicate that the estimated weighted market-based value per share should be lower than NOK 5 516,85. On the other side, it is assumed that the climbing gym market will enjoy a larger growth rate than the regular gym market beyond 2023 as well. As seen in chapter 9.3,

this will most likely continue to increase the estimated value of OKS AS when using forward multiples. Consequently, it can be concluded that the weighted market-based valuation of OKS AS, using 2023 forward multiples, has some weaknesses that reduced the reliability of the estimated value per share.

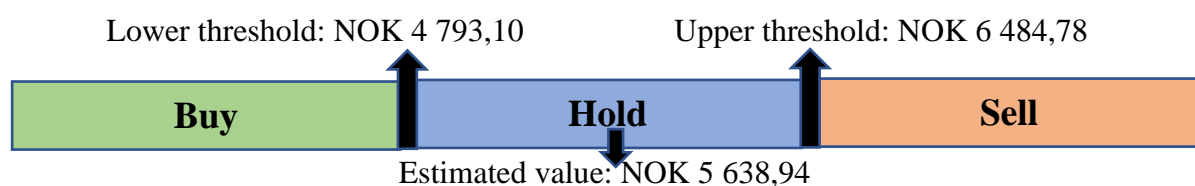
10. Conclusion

The goal of this master thesis was to find the intrinsic value of one share in Oslo Klatresenter AS (OKS AS) as of the 2nd of May 2021. An adjusted present value (APV) valuation of the company was completed to achieve this goal. This valuation was built on assumptions and insight about OKS AS from strategic analyses, historical financial statement analyses, performance forecasts and estimations of capital costs. Based on the findings, OKS AS' revenue is expected to enjoy a compound annual growth rate (CAGR) of 4,60% from 2019 to 2033 before reaching a steady-state growth rate of 3,5%. By combining this estimated growth rate with the other assumptions and findings, OKS AS equity value on the 2nd of May 2021 is estimated to be NOK 59 659 958, giving a value per share of NOK 5 638,94.

Furthermore, a weighted market-based valuation of OKS AS was completed to supplement the primary APV valuation. Consisting of forward EV/EBITDA, EV/EBITA, P/B and EV/Sales multiples, the weighted market-based valuation estimates OKS AS' value per share on the 2nd of May 2021 to be NOK 5 516,85. However, this thesis considers the APV valuation to be most reliable because the market-based valuation was forced to use regular fitness gyms as OKS AS' peers, and because discounted cash flow valuations generally are more precise than market-based valuations. Thus, this thesis concludes that OKS AS' value per share on the 2nd of May 2021 is NOK 5 638,94.

Having concluded that OKS AS' value per share is NOK 5 638,94, it is time to come with a trading recommendation. As a result of the many assumptions throughout this thesis and the illiquidity of the not publicly traded OKS AS shares, this thesis recommends a fair market value based on a margin of +/- 15% of the estimated value per share. Thus, this thesis recommends a buy strategy if the offered price per share is less than NOK 4 793,10, a hold strategy if the offered price per share is between NOK 4 793,10 and NOK 6 484,78, and a sell strategy if the offered price per share is higher than NOK 6 484,78.

Exhibit 39: Recommended investment strategy for Oslo Klatresenter AS' value per share on the 2nd of May 2021.



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12. Appendix A: Financial statement analysis of Klatreverket AS

Exhibit 40: Klatreverket AS' income statement as reported 2016 to 2019. Source: Klatreverket AS' annual reports 2016 to 2019.

In NOK	2016	2017	2018	2019
Income				
Sales	4 825 079	4 564 088	21 540 583	29 263 092
Other operating income	500 000	552 202	63 388	
Total operating income	5 325 079	5 116 290	21 603 971	29 263 092
Expenses				
Cost of materials	2 610 625	2 549 026	2 692 997	3 344 309
Wages	470	88 294	9 440 801	9 541 711
Depreciation fixed assets and intangible assets	455 410	535 208	1 011 925	1 053 043
Other operating expenses	1 191 790	2 176 738	5 943 179	6 275 123
Total operating expenses	4 258 295	5 349 266	19 088 901	20 214 186
Operating profit	1 066 784	-232 976	2 515 070	9 048 906
Financial income and expenses				
Share of profit of subsidiaries and from associated companies	4 000 000	7 813 987	0	0
Other financial income	10 333	6 740	17 752	70 473
Total financial income	4 010 333	7 820 727	17 752	70 473
Other interest expenses	470	0	0	0
Other financial expenses	0	17	43 091	6 912
Total financial expenses	470	17	43 091	6 912
Total financial income and expenses	4 009 863	7 820 710	-25 339	63 561
Ordinary result before taxes	5 076 647	7 587 734	2 489 731	9 112 467
Taxes	246 882	1 801 858	547 921	2 004 360
Ordinary result after taxes	4 829 765	5 785 876	1 941 810	7 108 107
Net income	4 829 765	5 785 876	1 941 810	7 108 107
Transfers and dispositions				
Dividend	4 000 000	0	0	10 000 000
Retained equity	829 765	5 785 876	1 941 810	-2 891 893
Total transfers and dispositions	4 829 765	5 785 876	1 941 810	7 108 107

Exhibit 41: Klatreverket AS' balance sheet as reported 2016 to 2019. Source: Klatreverket AS' annual reports 2016 to 2019.

In NOK	2016	2017	2018	2019
Balance - Assets				
Assets				
Intangible assets				
Licenses, patents, trademarks, other	0	0	0	0
Total intangible assets	0	0	0	0
Tangible assets				
Climbing wall, shock-absorbing mattress, fall floor	0	0	0	0
Operating movable property, furniture, tools, other	3 447 666	3 330 803	6 235 713	5 412 631
Total tangible assets	3 447 666	3 330 803	6 235 713	5 412 631
Fixed financial assets				
Investments in subsidiaries	308 000	1 285 214	2 693 995	3 275 195
Equities and investments	0	0	15 000	2 015 000
Total fixed financial assets	308 000	1 285 214	2 708 995	5 290 195
Total fixed assets	3 755 666	4 616 017	8 944 708	10 702 826
Current assets				
Inventories				
Inventories	1 794 822	1 631 765	1 858 761	1 555 702
Total Inventories	1 794 822	1 631 765	1 858 761	1 555 702
Debtors				
Account receivables	724 510	8 820 272	450 028	836 231
Other short-term receivables	16 007 938	8 309 494	6 960 838	4 177 629
Total receivables	16 732 448	17 129 765	7 410 866	5 013 860
Cash and deposits				
Cash and deposits	2 961 766	8 706 079	12 193 286	21 842 277
Total cash and deposits	2 961 766	8 706 079	12 193 286	21 842 277
Total current assets	21 489 037	27 467 609	21 462 913	28 411 839
Total assets	25 244 703	32 083 626	30 407 621	39 114 665
Balance - Equity and Liabilities				
Equity				
Paid-up equity				
Share capital	180 000	180 000	180 000	180 000
Share premium reserve	58 023	58 023	58 023	58 023
Total paid-up equity	238 023	238 023	238 023	238 023
Retained earnings				
Retained equity	14 281 888	18 067 764	22 227 292	19 335 399
Total retained earnings	14 281 888	18 067 764	22 227 292	19 335 399
Total equity	14 519 911	18 305 787	22 465 315	19 573 422
Liabilities				
Long-term debt				
Deferred tax	496 233	440 037	579 098	476 057
Total long-term debt	496 233	440 037	579 098	476 057
Short-term debt				
Trade creditors	506 939	228 904	211 365	1 206 668
Tax payable	287 565	1 546 334	112 075	1 943 473
Value added taxes	249 813	1 087 857	847 675	814 757
Dividend	4 000 000	0	0	10 000 000
Other short-term debt	5 184 242	10 474 708	6 192 093	5 100 288
Total short-term debt	10 228 559	13 337 802	7 363 208	19 065 186
Total liabilities	10 724 792	13 777 839	7 942 306	19 541 243
Total equity and liabilities	25 244 703	32 083 626	30 407 621	39 114 665

Exhibit 42: Klatreverket AS' total funds invested and invested capital 2016 to 2019. Source: Klatreverket AS' annual reports 2016 to 2019 with own calculations.

In NOK	2016	2017	2018	2019
Operating cash	106 502	102 326	432 079	585 262
Receivables, net	16 732 448	17 129 765	7 410 866	5 013 860
Merchandise inventories	1 794 822	1 631 765	1 858 761	1 555 702
Operating current assets	18 633 772	18 863 856	9 701 706	7 154 824
Accounts payable	-506 939	-228 904	-211 365	-1 206 668
Tax payable	-287 565	-1 546 334	-112 075	-1 943 473
Value added taxes	-249 813	-1 087 857	-847 675	-814 757
Operating current liabilities	-1 044 317	-2 863 095	-1 171 115	-3 964 898
Operating working capital	17 589 455	16 000 761	8 530 591	3 189 926
Property, plant and equipment	3 447 666	3 330 803	6 235 713	5 412 631
Capitalized operating leases	0	0	49 846 299	50 220 296
Invested capital, excluding intangibles	21 037 121	19 331 564	64 612 603	58 822 853
Intangibles	0	0	0	0
Invested capital, including intangibles	21 037 121	19 331 564	64 612 603	58 822 853
Equities and investments	0	0	15 000	2 015 000
Investments in subsidiaries	308 000	1 285 214	2 693 995	3 275 195
Non-operating investments	308 000	1 285 214	2 708 995	5 290 195
Excess cash	2 855 265	8 603 753	11 761 207	21 257 015
Total funds invested	24 200 386	29 220 532	79 082 805	85 370 063
Reconciliation of total funds invested				
Deferred tax	496 233	440 037	579 098	476 057
Other short term debt	5 184 242	10 474 708	6 192 093	5 100 288
Capitalized operating leases	0	0	49 846 299	50 220 296
Dividend	4 000 000	0	0	10 000 000
Debt and debt equivalents	9 680 475	10 914 745	56 617 490	65 796 641
Shareholders' equity	14 519 911	18 305 787	22 465 315	19 573 422
Equity and equity equivalents	14 519 911	18 305 787	22 465 315	19 573 422
Total funds invested	24 200 386	29 220 532	79 082 805	85 370 063

Exhibit 43: Klatreverket AS' NOPAT 2017 to 2019. Source: Klatreverket AS' annual reports 2017 to 2019 with own calculations.

In NOK	2017	2018	2019
Revenue	5 116 290	21 603 971	29 263 092
Merchandise costs	-2 549 026	-2 692 997	-3 344 309
Wages	-88 294	-9 440 801	-9 541 711
Depreciation	-535 208	-1 011 925	-1 053 043
Other operating expenses	-2 176 738	-5 943 179	-6 275 123
EBITA, unadjusted	-232 976	2 515 070	9 048 906
Operating lease interest	0	1 351 899	1 365 789
EBITA, adjusted	-232 976	3 866 969	10 414 695
Operating taxes	55 914	-889 403	-2 291 233
NOPAT	-177 062	2 977 566	8 123 462
Reconciliation to net income			
Net income	5 785 876	1 941 810	7 108 107
Financial income	-7 820 727	-17 752	-70 473
Financial expenses	17	43 091	6 912
Operating lease interest	0	1 351 899	1 365 789
Non-operating tax expenses	1 857 772	-341 482	-286 873
NOPAT	-177 062	2 977 566	8 123 462

Exhibit 44: Klatreverket AS' free cash flow 2017 to 2019. Source: Klatreverket AS' annual reports 2016 to 2019 with own calculations.

In NOK	2017	2018	2019
NOPAT	-177 062	2 977 566	8 123 462
Depreciation	535 208	1 011 925	1 053 043
Gross cash flow	358 146	3 989 491	9 176 505
Decrease (increase) in working capital	1 588 694	7 470 170	5 340 666
Less: Capital expenditures	-418 344	-382 438	-229 961
Decrease (increase) in capitalized operating leases	0	-49 846 299	-373 997
Free cash flow to investors	1 528 496	-38 769 076	13 913 213

Exhibit 45: Klatreverket AS' ROIC 2017 to 2019. Source: Klatreverket AS' annual reports 2016 to 2019 with own calculations.

In %	2017	2018	2019
Operating margin (% of revenue)			
EBITA/revenue (operating margin)	-4,55 %	17,90 %	35,59 %
Cost of services and goods sold	49,82 %	12,47 %	11,43 %
Selling and general expenses	1,73 %	43,70 %	32,61 %
Other operating expenses, adjusted	42,55 %	21,25 %	16,78 %
Depreciation	10,46 %	4,68 %	3,60 %
Revenue/invested capital (% of revenue)*			
Invested capital/revenue	394,51 %	194,28 %	210,91 %
Operating working capital	328,27 %	56,78 %	20,03 %
Fixed assets	66,24 %	22,14 %	19,90 %
Capitalized operating leases	0 %	115 %	171 %
Revenue/invested capital without goodwill and acquired intangibles	0,25	0,51	0,47
Pre-tax ROIC	-1,15 %	9,21 %	16,87 %
Operating cash tax rate	24,00 %	23,00 %	22,00 %
ROIC without goodwill and acquired intangibles	-0,88 %	7,09 %	13,16 %
Goodwill and acquired intangibles as a % of capital	0,00 %	0,00 %	0,00 %
ROIC with goodwill and acquired intangibles	-0,88 %	7,09 %	13,16 %

**Calculated using the year's average invested capital*

13. Appendix B: Financial statement analysis of Grip Leangen AS

Exhibit 46: Grip Leangen AS' income statement as reported 2016 to 2019. Source: Grip Leangen AS' annual reports 2016 to 2019.

In NOK	2016	2017	2018	2019
Income				
Sales	9 106 826	9 976 455	10 072 092	11 990 014
Other operating income	206	0	0	0
Total operating income	9 107 032	9 976 455	10 072 092	11 990 014
Expenses				
Cost of materials	930 550	791 463	887 024	1 311 749
Wages	3 332 425	3 627 017	3 705 803	3 012 486
Depreciation fixed assets and intangible assets	341 257	371 955	400 657	466 883
Other operating expenses	2 215 372	2 406 220	2 624 722	2 651 258
Total operating expenses	6 819 604	7 196 654	7 618 206	7 442 376
Operating profit	2 287 428	2 779 801	2 453 886	4 547 638
Financial income and expenses				
Interest income from group companies	0	0	0	3 733
Other interest income	9 900	10 836	10 559	8 631
Total financial income	9 900	10 836	10 559	12 364
Other interest expenses	8 466	3 350	1 047	3 899
Other financial expenses	0	1 274	1 589	4 045
Total financial expenses	8 466	4 624	2 636	7 944
Total financial income and expenses	1 434	6 212	7 923	4 420
Ordinary result before taxes	2 288 862	2 786 013	2 461 809	4 552 058
Taxes	569 324	668 161	566 435	1 001 551
Ordinary result after taxes	1 719 538	2 117 852	1 895 374	3 550 507
Net income	1 719 538	2 117 852	1 895 374	3 550 507
Transfers and dispositions				
Additional dividend	0	0	1 600 000	0
Dividend	300 000	1 000 000	2 800 000	0
Given intra-group contribution	0	0	0	2 271 460
Transfers other paid-up equity	0	10 000	0	0
Retained equity	1 419 538	1 107 852	-2 504 626	1 279 047
Total transfers and dispositions	1 719 538	2 117 852	1 895 374	3 550 507

Exhibit 47: Grip Leangen AS' balance sheet as reported 2016 to 2019. Source: Grip Leangen AS' annual reports 2016 to 2019.

In NOK	2016	2017	2018	2019
Balance - Assets				
Assets				
Intangible assets				
Deferred tax assets	0	0	3 206	40 443
Total intangible assets	0	0	3 206	40 443
Tangible assets				
Operating movable property, furniture, tools, other	1 357 616	1 295 863	1 147 865	1 006 654
Total tangible assets	1 357 616	1 295 863	1 147 865	1 006 654
Fixed financial assets				
Other long-term receivables	0	559 296	559 575	0
Total fixed financial assets	0	559 296	559 575	0
Total fixed assets	1 357 616	1 855 159	1 710 646	1 047 097
Current assets				
Inventories				
Inventories	511 518	706 932	887 743	770 352
Total Inventories	511 518	706 932	887 743	770 352
Debtors				
Account receivables	317	18 922	29 728	8 084
Other short-term receivables	1 175	0	0	447 150
Accounts receivables group companies		0	0	1 035 995
Total receivables	1 492	18 922	29 728	1 491 228
Cash and deposits				
Cash and deposits	2 909 228	2 452 757	3 335 011	2 383 221
Total cash and deposits	2 909 228	2 452 757	3 335 011	2 383 221
Total current assets	3 422 238	3 178 611	4 252 482	4 644 801
Total assets	4 779 854	5 033 770	5 963 128	5 691 898
Balance - Equity and Liabilities				
Equity				
Paid-up equity				
Share capital	30 000	30 000	30 000	30 000
Other paid-up equity	-10 000	0	0	0
Total paid-up equity	20 000	30 000	30 000	30 000
Retained earnings				
Retained equity	1 419 539	2 527 391	22 765	1 301 812
Total retained earnings	1 419 539	2 527 391	22 765	1 301 812
Total equity	1 439 539	2 557 391	52 765	1 331 812
Liabilities				
Long-term debt				
Deferred tax	9 417	18 942	0	0
Total long-term debt	9 417	18 942	0	0
Short-term debt				
Trade creditors	22 382	170 845	302 033	179 771
Tax payable	559 908	658 637	588 583	398 121
Value added taxes	226 966	232 942	217 317	298 955
Dividend	0	1 000 000	4 400 000	0
Trade creditors group companies	0	0	0	2 912 128
Other short-term debt	2 521 642	395 013	402 430	571 111
Total short-term debt	3 330 898	2 457 437	5 910 363	4 360 086
Total liabilities	3 340 315	2 476 379	5 910 363	4 360 086
Total equity and liabilities	4 779 854	5 033 770	5 963 128	5 691 898

*Exhibit 48: Grip Leangen AS' total funds invested and invested capital 2016-2019.
Source: Grip Leangen AS' annual reports 2016 to 2019 with own calculations.*

In NOK	2016	2017	2018	2019
Operating cash	182 141	199 529	201 442	239 800
Receivables, net	1 492	18 922	29 728	1 491 228
Merchandise inventories	511 518	706 932	887 743	770 352
Operating current assets	695 151	925 383	1 118 913	2 501 380
Accounts payable	-22 382	-170 845	-302 033	-179 771
Tax payable	-559 908	-658 637	-588 583	-398 121
Value added taxes	-226 966	-232 942	-217 317	-298 955
Operating current liabilities	-809 256	-1 062 424	-1 107 933	-876 847
Operating working capital	-114 105	-137 041	10 980	1 624 533
Property, plant and equipment	1 357 616	1 295 863	1 147 865	1 006 654
Capitalized operating leases	13 948 887	14 089 955	14 207 080	14 299 571
Invested capital, excluding intangibles	15 192 398	15 248 777	15 365 925	16 930 758
Intangibles	0	0	0	0
Invested capital, including intangibles	15 192 398	15 248 777	15 365 925	16 930 758
Other long-term receivables	0	559 296	559 575	0
Non-operating investments	0	559 296	559 575	0
Deferred tax assets	0	0	3 206	40 443
Excess cash	2 727 087	2 253 228	3 133 569	2 143 421
Total funds invested	17 919 485	18 061 301	19 062 275	19 114 622
Reconciliation of total funds invested				
Deferred tax	9 417	18 942	0	0
Other short term debt	2 521 642	395 013	402 430	571 111
Capitalized operating leases	13 948 887	14 089 955	14 207 080	14 299 571
Dividend	0	1 000 000	4 400 000	0
Trade creditors group companies	0	0	0	2 912 128
Debt and debt equivalents	16 479 946	15 503 910	19 009 510	17 782 810
Shareholders' equity	1 439 539	2 557 391	52 765	1 331 812
Equity and equity equivalents	1 439 539	2 557 391	52 765	1 331 812
Total funds invested	17 919 485	18 061 301	19 062 275	19 114 622

Exhibit 49: Grip Leangen AS' NOPAT 2017 to 2019. Source: Grip Leangen AS' annual reports 2016 to 2019 with own calculations.

In NOK	2017	2018	2019
Revenue	9 976 455	10 072 092	11 990 014
Merchandise costs	-791 463	-887 024	-1 311 749
Wages	-3 627 017	-3 705 803	-3 012 486
Depreciation	-371 955	-400 657	-466 883
Other operating expenses	-2 406 220	-2 624 722	-2 651 258
EBITA, unadjusted	2 779 801	2 453 886	4 547 638
Operating lease interest	382 200	386 065	389 274
EBITA, adjusted	3 162 000	2 839 951	4 936 912
Operating taxes	-758 880	-653 189	-1 086 121
NOPAT	2 403 120	2 186 762	3 850 791
Reconciliation to net income			
Net income	2 117 852	1 895 374	3 550 507
Financial income	-10 836	-10 559	-12 364
Financial expenses	4 624	2 636	7 944
Operating lease interest	382 200	386 065	389 274
Non-operating tax expenses	-90 719	-86 754	-84 570
NOPAT	2 403 120	2 186 762	3 850 791

Exhibit 50: Grip Leangen AS' free cash flow 2017 to 2019. Source: Grip Leangen AS' annual reports 2016 to 2019 with own calculations.

In NOK	2017	2018	2019
NOPAT	2 403 120	2 186 762	3 850 791
Depreciation	371 955	400 657	466 883
Gross cash flow	2 775 075	2 587 419	4 317 674
Decrease (increase) in working capital	22 936	-148 021	-1 613 553
Less: Capital expenditures	-310 202	-252 658	-325 672
Decrease (increase) in capitalized operating leases	-141 067	-117 125	-92 491
Free cash flow to investors	2 346 741	2 069 615	2 285 958

Exhibit 51: Grip Leangen AS' ROIC 2017 to 2019. Source: Grip Leangen AS' annual reports 2016 to 2019 with own calculations.

In %	2017	2018	2019
Operating margin (% of revenue)			
EBITA/revenue (operating margin)	31,69 %	28,20 %	41,18 %
Cost of services and goods sold	7,93 %	8,81 %	10,94 %
Selling and general expenses	36,36 %	36,79 %	25,12 %
Other operating expenses, adjusted	20,29 %	22,23 %	18,87 %
Depreciation	3,73 %	3,98 %	3,89 %
Revenue/invested capital (% of revenue)*			
Invested capital/revenue	152,57 %	151,98 %	134,68 %
Operating working capital	-1,26 %	-0,63 %	6,82 %
Fixed assets	13,30 %	12,13 %	8,98 %
Capitalized operating leases	141 %	140 %	119 %
Revenue/invested capital without goodwill and acquired intangibles	0,66	0,66	0,74
Pre-tax ROIC	20,77 %	18,55 %	30,57 %
Operating cash tax rate	24,00 %	23,00 %	22,00 %
ROIC without goodwill and acquired intangibles	15,79 %	14,29 %	23,85 %
Goodwill and acquired intangibles as a % of capital	0,00 %	0,00 %	0,00 %
ROIC with goodwill and acquired intangibles	15,79 %	14,29 %	23,85 %

**Calculated using the year's average invested capital*