



Universitetet  
i Stavanger

**HANDELSHØGSKOLEN VED UIS**

MASTEROPPGAVE

**STUDIEPROGRAM:**

Master's in economy and administration  
specialized in finance

**ER OPPGAVEN KONFIDENSIELL?**

**(NB! Bruk rødt skjema ved konfidensiell  
oppgave)**

**TITTEL:** Verdsettelse av Norwegian Air Shuttle ASA

**ENGELSK TITTEL:** Valuation of Norwegian Air Shuttle ASA

**FORFATTER(E)**

**VEILEDER:**

**Kandidatnummer:**

244034

221226

**Navn:**

Magnus Aarrestad Iversen

Einar Øglænd Torjusen

Bernt Arne Ødegård

## Executive summary

The purpose of this thesis is to estimate the share price of Norwegian Air Shuttle per 31.12.2018. In order to do so, we will analyze the strategic environment in which Norwegian Air Shuttle ASA operates and its financial position. This will be used as a basis for our financial analysis, forecasting and finally a valuation.

We will at first give a proper presentation about Norwegian Air shuttle followed by a strategic analysis where we will analyze the external and internal environment that Norwegian operates in. Furthermore, we will perform a financial statement analysis, in this section we will introduce the peer group. We will under financial analysis reformulate Norwegian's and make adjustments in order to make both Norwegian and the peer group comparable. Based upon this information we will conduct a forecasting section that will be used in the valuation. The valuation methods will be a discounted cash flow, multiple valuation and liquidation method.

Norwegian faces both challenges and opportunities in the foreseeing future. The intense competition in the industry keeps putting pressure on ticket prices resulting in a lower revenue growth. However, Norwegian is in a situation where they are able to obtain market shares from competitors. In addition, the expansion in the long-haul market seems to be growing rapidly, especially in the US where they are one of the biggest carriers in New York and Los Angeles.

Our valuation conclusion was that Norwegian's share price the 31.12.2018 was overpriced according to both our DCF and multiple valuation. The share price per 31.12.2018 was 173,5 NOK. The liquidation method basically told us that if the choice was to liquidate the company, there would be nothing left to the shareholders. The observable share price from the discounted cash flow was 595 NOK and 132 NOK from the multiple approach. We arrived at a weighted share price of 502 NOK in section 7.0 Conclusion. In terms of the valuation we do believe that the sensitivity analysis would give a better understanding of both the potential and the risk that comes along with Norwegian Air Shuttle.

Due to the concluded share price, as stated above, we believe the share price is undervalued and propose a buy recommendation on Norwegian Air Shuttle ASA with an upside potential of 140%, although we do want of high risk and volatility.

## Preface

In our master's program we've had a lot of different subjects over the past two years. We both developed a genuine interest in the financial part of the subjects. Under discussion we concluded that our common interest in valuing a company matched perfectly. After discussing different industries and companies we both agreed on that our common interest was the airline industry. Finding a suitable company in this industry with challenges did not show itself to be any problem. After reading numerous topics regarding Norwegian Air Shuttle and all the different analyses done by analytics regarding the share price, we found it interesting to take a deeper look ourselves.

This master thesis marks the end of our two years master's degree in economy and administration at Handelshøgskolen at the University of Stavanger. Writing this thesis has been educational and rewarding, but at the same time proved itself to be quite demanding.

We want to thank our supervisor Bernt Ødegaard at Handelshøgskolen at the University of Stavanger for his good advice and constructive feedbacks. At the same time, we would like to thank family, classmates and the people that has been helpful throughout our period of study.

Stavanger, 17th of June 2019.

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## 1.0 Introduction

### 1.1 Historical Overview

*Norwegian Air Shuttle ASA is a low-cost carrier with headquarter in Oslo, Norway. It is a public traded company that mainly competes in the European market but are expanding long-haul operations to USA and Asia. Norwegian's vision is that everyone should afford to fly.<sup>1</sup>*

Norwegian was founded in 1993 as a continuation of BusyBee. Bjørn Kjos, who is the CEO of Norwegian Air Shuttle was just supposed to help out BusyBee after being announced as being bankrupt. Bjørn Kjos basically needed to teach the pilots that the revenue had to be larger than the cost. They started commercial flights on the west coast of Norway with three Fokker 50 planes. This was a collaboration with Braathens SAFE which lasted until 2002. In 2002 SAS purchased Braathens SAFE and resulted in Norwegian launching their first domestic flight in Norway. The launch came with a great amount of stress and pressure, and Norwegian barely avoided bankruptcy. Norwegian managed the deadline 23:00 the 26<sup>th</sup> of January 2002, and the start of the adventure was real. In 2003 Norwegian went public with the ticker NAS. The issue of new shares was a stunning success and was oversubscribed seven times the amount. This gave Norwegian the fresh capital they needed in the price war they had started, and it was vital to the future existence of Norwegian as an airline company.<sup>2</sup>

In 2004 Norwegian went into a collaboration with Sterling and FlyNordic which led to an increase in routes offered in Scandinavia. Year 2005 was the first year Norwegian profited on their operations with a positive EBITDA and this was considered as a milestone. During the summer of 2007 Norwegian strengthened their positioning in Scandinavia and Europe by buying FlyNordic from Finnair. The same year they ordered 42 Boeing 737-800 from Boeing which was the largest order ever made in Scandinavia. Bank Norwegian was also established the same year introducing the frequent flyer reward program called Norwegian Reward. Bank Norwegian and Norwegian Air Shuttle exploited the natural synergy between the two companies and ended up as a great success. Over the next years Norwegian received their first Boeing 737-800 Next Gen plane and they expanded their network of destinations with adding 39 routes in Denmark. In 2010 they won gold and silver in the prestigious research by Sky

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<sup>1</sup> Norwegian Air Shuttle. (2018). *Visjon og verdier*

<sup>2</sup> Norwegian Air Shuttle (2018) *Om oss*

Trax Awards. The same year they expanded their fleet with an additional 15 Boeing 737-800 NG.<sup>1</sup>

In 2011 Norwegian launched their long-haul project where they went into an agreement with Boeing of buying three Boeing 787-8 Dreamliner planes and introduced free Wifi onboard as the first ever airline to do so. The next year Norwegian agreed to rent an additional two Dreamliner´s for the long-haul project. They also made the largest order ever made by an airline company by ordering 220 planes from Boeing and Airbus.<sup>3</sup> In the next two years they ordered another 19 Dreamliner´s, totaling 30 in order. With the ongoing orders they established bases in both Europe and the rest of the world. During this period, they received awards every year. Among these awards were “World´s best low-cost airline” by Airlineratings.com and Air Transport New Awards. The long-haul project received an award for “World´s best long-haul low-cost airline” by SkyTrac World Airline Awards.<sup>4</sup>

Today Norwegian houses around 10.000 employees and operates with a fleet of approximately 164 planes, with 181 planes in order. The huge fleet and number of employees are some of the main reasons that Norwegian is the third largest European low-cost company and rated 2<sup>nd</sup> best in the world. Norwegian has experienced incredible growth throughout the years reaching a gross revenue of 40bNOK in 2018, transported over 33 million passengers and built up a network of over 500 routes spread over 150 destinations worldwide.<sup>5</sup>

As we can see from the stock chart in Figure 1, Norwegian investors have been on a decent journey from the start. It topped out in 2015/2016 and started trading lower from there. As shown in section 3.7 it was due the start of negative results.

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<sup>3</sup> Six News/E24 (2012)

<sup>4</sup> Skytrax (2018). World´s best low-cost airlines. Collected from <https://www.worldairlineawards.com/worlds-best-low-cost-airlines-2018/>

<sup>5</sup> Norwegian Air Shuttle ASA (2017). Annual report. Collected from <https://www.norwegian.no/globalassets/ip/documents/investor-relations/annual-report-2017-interactive.pdf>

**Figure 1: Norwegian historical stock price**



Figure 1: Stock price development. Creation: Hengnar.no <sup>6</sup>

## Strategy

Norwegians vision is that «everyone should afford flying». They plan to accomplish this by “offering quality flights at a low fare based on operational excellence and helpful and friendly service”. Their strategy is to maintain their position in the short-haul segment in Europe and to expand their long-haul commitment. To achieve this, they will enter new and unserved markets. With an order of 164 planes and launching new destinations it highlights their goal to be a global competitive low-cost airline.<sup>7</sup>

## Key elements in Norwegians strategy<sup>8</sup>

- “Attract customers by offering competitive fares and a quality travel experience whilst maintaining low operating cost.”
- “Offer customers the freedom of choice to select additional products and services. Norwegian provides a core, low-cost product to the price sensitive customer and a

<sup>6</sup> Proff.no (2017). Hengnar.no. Collected from <https://www.hegnar.no/Marked/?s=nas>

<sup>7</sup> Norwegian Air Shuttle ASA (2017). Annual report. Collected from <https://www.norwegian.no/globalassets/ip/documents/investor-relations/annual-report-2017-interactive.pdf>

<sup>8</sup> Norwegian Air Shuttle ASA (2018). Vision and values. Collected from <https://www.norwegian.com/us/about/our-story/vision-and-values/>

*more comprehensive package for those who may want a little extra. Thereby ensuring a broad market reach.”*

- *“Bypass the traditional hub and spoke model with focus on point-to-point leisure travelers.”*
- *“Utilize the strong brand awareness and efficient distribution channels to further increase the Norwegians Group’s revenue and profitability.”*
- *“Secure an optimal operating model to handle fleet growth, international expansion, market access and efficiency in all parts of the operations.”*
- *“Maintain an innovative, “out-of-the-box” approach to the way business is done and explore new opportunities across the global marketplace.”*
- *“Have a positive, effective and entrepreneurial organization in which everyone has the possibility to make a difference.”*<sup>8</sup>

## Corporate structure

Norwegian Air Shuttle ASA is a mother company which is split between institutional and private ownership where HBK Holding own 15,64 % of the company. NAS ASA owns directly or indirectly subsidiaries such as Norwegian Cabin Services Norway AS, NAS Eire Invest, Norwegian Cargo AS, Norwegian Air Norway AS, Norwegian pilot services AS, Norwegian Holidays AS, Norwegian ground handling AS, Norwegian Reward AS, Norwegian Brand Ltd and 16,4% of the shares in Norwegian Finans Holding AS which is also known as Bank Norwegian. Figure 2 on the next page shows the corporate structure summarized.



Figure 2: Corporate structure Norwegian Air Shuttle ASA<sup>9</sup>. Own Creation

## 1.2 The airline industry and competitors

The worldwide airline industry has throughout the years experienced massive changes. The industry contains price-sensitive customers, has low-profit margins, got strict safety measures and is very competitive. In the last two decades the industry has gone from being a few state-owned airline carriers in a regulated market to a dynamic and free-market industry.<sup>10</sup>

In the 1990's there was a deregulation of the European market. This meant that within the EU airlines could now operate between two other member States via their home country. This led to the rise of international airline alliances. The carriers were now able to compete freely on routes, frequency of routes and prices. The deregulation caused two main effects. One of them concerning the low-cost carriers (LCCs) where analysts saw an increase in the point-to-point (PP) systems and how they adopted this. Before the deregulation the traditional system was a hub-and-spoke network. The hub-and-spoke model reduced overall cost for airlines which made it the dominant model. Figure 3 is shown below.

<sup>9</sup> Proff.no 2017

<sup>10</sup> Cento. A 2009: p.16

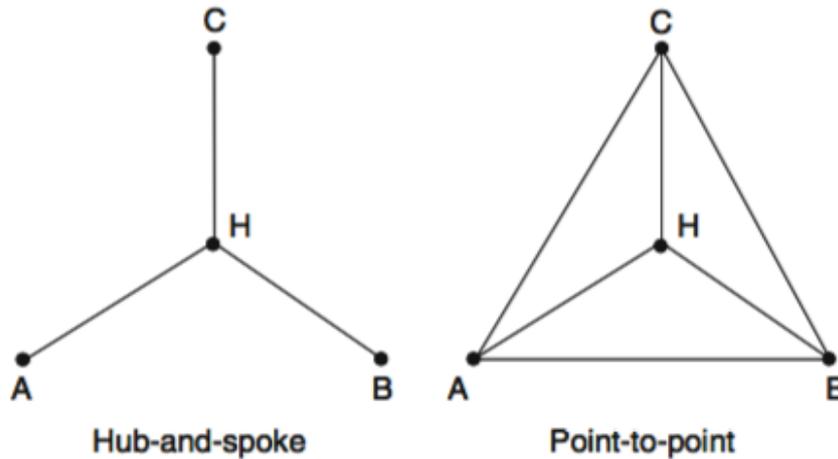


Figure 3: Airline business models Source<sup>11</sup>

Figure 3 shows in a simple way the difference between the two business models. A typical airline using Hub-and-spoke is the Emirates, who's hub is in Dubai. Norwegian uses the Point-to-point model and flies to all the different places directly instead of through a hub.

The second effect was the growth of the low-cost carriers (LCCs) such as Ryanair and Easyjet. The LCC's experienced fast growth after deregulations in 1990 which made them able to compete with the full-service carriers.

From 1997 to 2000, three of the biggest airline alliances were founded. Star alliance, Oneworld and Skyteam. The main goal of an alliance is to take advantage by accessing the connection system of the partners giving access to more destinations. The creation of airline alliances comes down to the economical aspect, as the airlines have insufficient resources to develop new markets by themselves, resulting in alliances being used as an alternative.

In March 2008 the Open-Skies agreement between the EU and the US took place. European airlines could now fly from any point in EU to anywhere in the US without any restrictions. The agreement was expected to increase competition and reduce airfares in the air transport market. With the agreement came security standards and a regulation that limited foreign countries from owning more than 25 percent of a US carrier and 49 percent in an EU carrier, making sure the control stays inland. What is said to be the most important outcome of this

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<sup>11</sup> Cento. A 2009: p.32

agreement is the fact that US carriers would now be able to enter London Heathrow, which is a key getaway airport for the US due to the location.<sup>12</sup>

The Scandinavian market differs a bit from the global market. In Scandinavia it is more common to fly, rather than taking a bus or a train. This is most likely due to the distance between cities and lack of alternatives north of Trondheim. Another factor is that every Nordic country is surrounded by ocean, which makes boat transportation the only substitute to travel overseas. As a result, Scandinavians fly 8 times per year on average compared to other average Europeans who fly 3,25 times a year. The market share is shown in the figure below, which backs the assertion on who flies the most of Europeans and Scandinavians.<sup>13</sup>

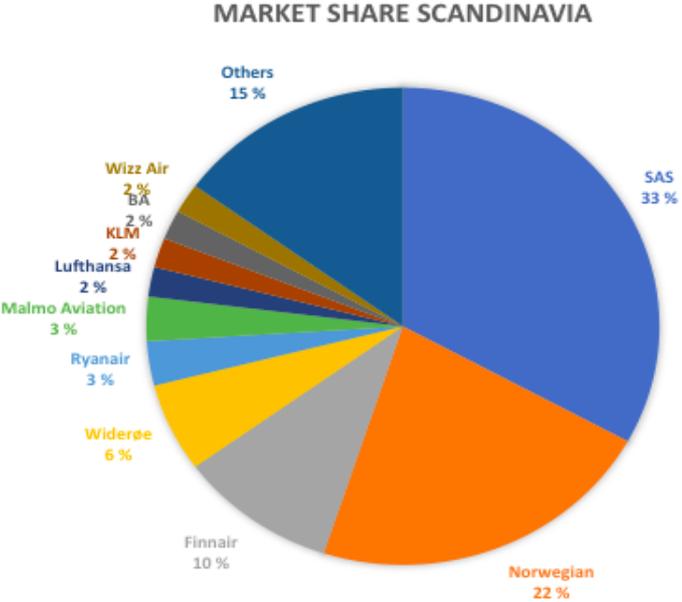


Figure 4: Market share Scandinavia. Own creation. Source: CAPA <sup>13</sup>

<sup>12</sup> Cento, 2009, p.17

<sup>13</sup> Capa 2016

### 1.3 Valuation

There are several methods in existence to use when figuring out the true value of a company. Choice of method will depend on which industry the company is operating in and where in its lifecycle it currently is. For airlines it is normal to use the multiple approach and the DCF approach. In this thesis we will assess both methods, where we will mainly base it on the DCF model and carefully choose our forecasting. From Figure 5, we will use the P/B ratio, P/S ratio and the DCF model. Other models we will assess is the EV/EBITDAR and also the EV/Invested Capital as an addition to EV/EBITDAR.

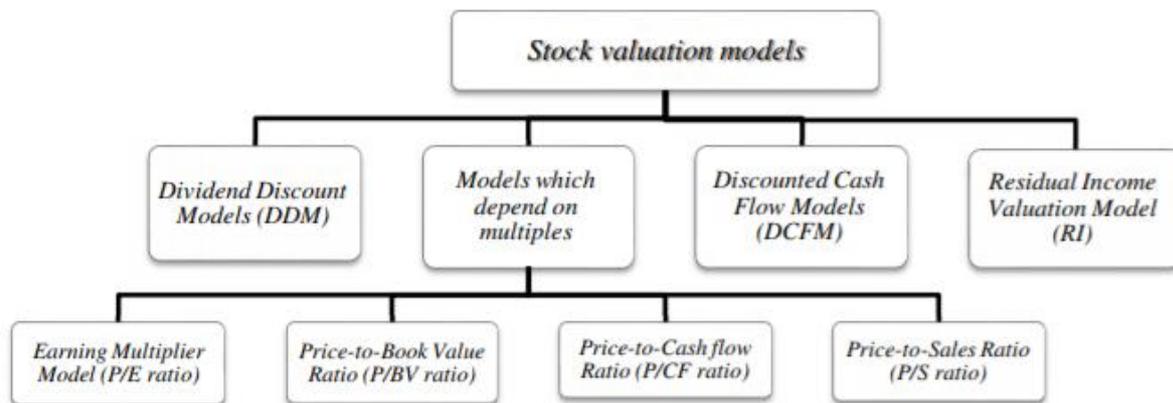


Figure 5: Stock valuation models. <sup>14</sup>

Throughout this assignment we will assess Norwegian Air Shuttle from an investor's perspective. The thesis will be constructed as a real-life investment case, where we will apply various models and framework, among the models mentioned above. We will base our thesis on four major compilations.

- Company overview
- Strategic and financial analysis
- Forecasting
- Valuation

In the company overview we provided a proper presentation of Norwegian Air Shuttle ASA. The strategic analysis will analyze factors that affects the company on both an internal and external level. Under the financial analysis we will present the historical financial statement,

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<sup>14</sup> Ahmed, S. Wafia, H, Hassana, Mabrouka, A. (2015)

make the adjustment needed for analysis purposes and use this as a basis to assess Norwegians financial state along with the belonging key figures. In the forecasting section we will use our findings in the previous chapter to forecast the future value drivers. Finally, we will use the present and forecasted values in chosen valuation models in order to obtain a fair share price estimate.

Based on the information given above and the challenges Norwegian got ahead our research question is:

*“Are Norwegian Air Shuttle’s ASA common shares fair priced on 31. of December 2018?”*

Based on the insights obtained in this thesis we will be able to conclude if Norwegian Air Shuttle’s common shares are fair valued.

## 2.0 Strategic analysis

In the strategic analysis we will identify the non-financial drivers of the company stock. This part is structured into five parts. Firstly, we will analyze the macro-environment which Norwegian operates in. Secondly, we will continue with an analysis of the supply and demand in the airline industry. Thirdly, we will take to see how attractive the industry is for investors. Fourthly, we will analyze the strategic positioning in the industry. Lastly, we will do an internal analysis of Norwegian.

From this analysis we will get a better picture of Norwegian as a company in the industry and their positioning compared to competitors and macro environment.

### 2.1 PESTEL analysis

The framework of the Pestel analysis is used to analyze the macro-environment that affects all firms across industries. The issues analyzed in the Pestel analysis is affecting the economic factors increasingly and we find it necessary to take these into account not only on a domestic/national basis, but also on a global level due to the internalization.

### Political factors

Historically, political factors have been one of the most important drivers for changes in the airline industry. Airlines such as Norwegian that operates in several countries and different parts of the world operates under regulations that leads to great impacts on the airlines. Throughout the last few decades the airline industry has been deregulated and liberalized. Prior to the deregulation the market consisted of a few long-established state-owned carriers in a regulated market.<sup>15</sup> These were operating in Europe controlled by state-bilateral agreements. The deregulation and the privatization of the airline industry made it possible for EU airline to now operate between two other member States as long as it was via their home country, this led to the emergence of the low-cost carriers. The breakthrough came with the Open-Skies agreement, this were signed the 30<sup>th</sup> of March 2008. This deal made it possible for European airlines to fly to the US without any restrictions. Due to the agreement it was expected to increase the competition which resulted in reduced airfares. In the aftermath of the open-skies agreement international alliances were established, considering it made it possible for an airline to have international routes from their home country this was quite the benefit. Over time, one thing is for sure and that is the fact that; growth of the airlines has benefited businesses, governments and individual passengers.<sup>16</sup>

Another political factor that is concerning is Brexit in the UK. It is hard to say how big of an impact this will have on the aviation industry. The outcome of the UK referendum has led to some uncertainty over how the UK and EU will collaborate in a mutual and beneficial way. Short-term, the foreign exchange currency could experience high volatility. In the medium term when the terms of the exit become a bit clearer, airlines will need to make strategic decisions based on the outcome whether it be regulatory or operational issues. In the long-term strategies for operations, consumer protection and regulatory matters will have to be considered.<sup>17 18</sup>

Tax and regulations are also major political factors that the airlines deem to impact the aviation industry. Such fees and regulations impact Norwegian on a large scale. In 2016 the Norwegian government decided to introduce the seating fee. The fee was 80 NOK for each

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<sup>15</sup> Cento. A 2009: p.13

<sup>16</sup> Cento. A 2009: p.16

<sup>17</sup> Deloitte. 2016

<sup>18</sup> Warner. J 2018

passenger flying from a Norwegian airport. This was a hot topic in Norway and was criticized by organizations and institutions as they saw a risk of airlines and airports shutting down routes and airports from and to Norway.<sup>19</sup> A significant part of Norwegians expenses is due to government fees and if these fees were to increase it would heavily affect Norwegians operations.<sup>20</sup>

### *Conflicts, plane crashes and terrorist attacks*

Conflicts, terrorists attack, plane crashes and war are events that will make a major impact on the aviation industry. Terrorist attacks and political conflicts in countries will affect the tourism and directly impact the aviation industry. Plane crashes, such as the recent events with the Boeing 737 MAX affects the demand of air transports directly.

### Economic factors

*“Economics refers to macro-economic factors such as exchange rates, business cycles and differential economic growth rates.”<sup>21</sup>*

Typical behavior in business cycles is that managers are over-confidential at the top of the cycles and excessive caution at the bottom.

Norwegian’s main market is the Nordic countries, but as Norwegian is expanding and focusing more on long haul it is important to look at the world market. An important part of the world to mention is Asia. China and India have a real GDP growth of 6,3% and 7,3% respectively, while according to the IMF the global economy is estimated to grow 3,3% in 2019.<sup>22</sup>

As a country’s economy is growing it normally means that people also increase their purchasing power around the world. As shown in Figure 5, China and India is expected to have an increase in demand of 850 million and 250 million passengers a year by 2034.

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<sup>19</sup> Strønen. A. 2015

<sup>20</sup> Devold K. 2016

<sup>21</sup> Johnson, G. Scholes, K. Whittington, R 2009: P.55

<sup>22</sup> IMF.org (2019)

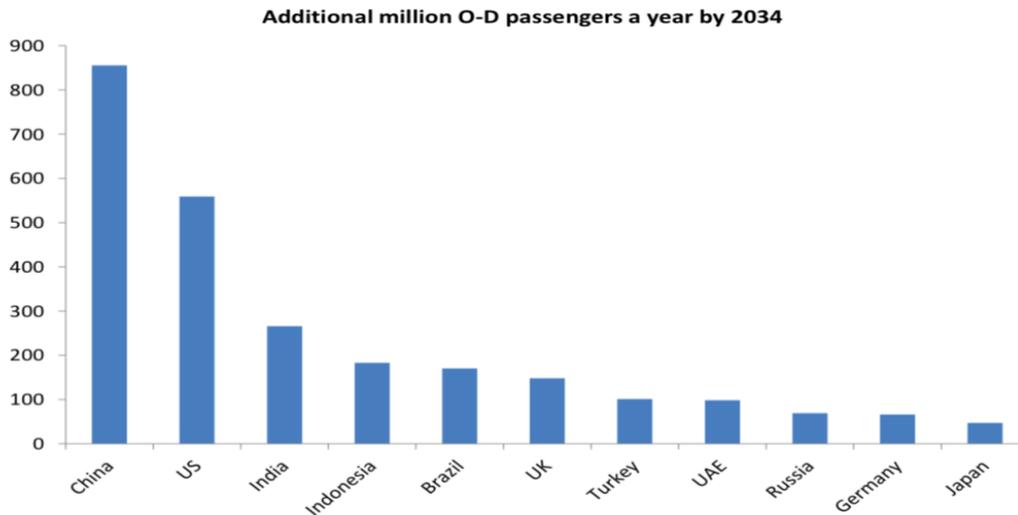


Figure 5: Growth differs by market. Source: Iata.org. Creation: Iata.org<sup>23</sup>

In the case of the long-haul expansion it seems like Norwegian have been pushing their routes into up and coming markets. As Asia and China are both new emerging markets, Norwegian is ready to meet the coming demand. An effect of flying from these countries is the workforce recruited. As Bjørn Kjos stated in a presentation for Build2Grow TV, the salaries in Asia is significant lower, which he plans to take an advantage off. Through Norwegian Air International it is possible for Norwegian to fly with foreign employees, which reduces Norwegians salary significantly.<sup>24</sup>

According to Iata, GDP is a crucial economic factor in the airline industry. The basis for this is that the growth in the airline industry previously have correlated with the GDP growth.<sup>25</sup> It is important to take notice that the Nordic countries only represent a small part, and these economies are open and very sensitive to the rest of the world. Especially US and China, considering that the GDP from these countries represent 39,4 % of world GDP.

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<sup>23</sup> Iata 2014.

<sup>24</sup> Build2Grow 2014: 36:10

<sup>25</sup> Iata.org 2018

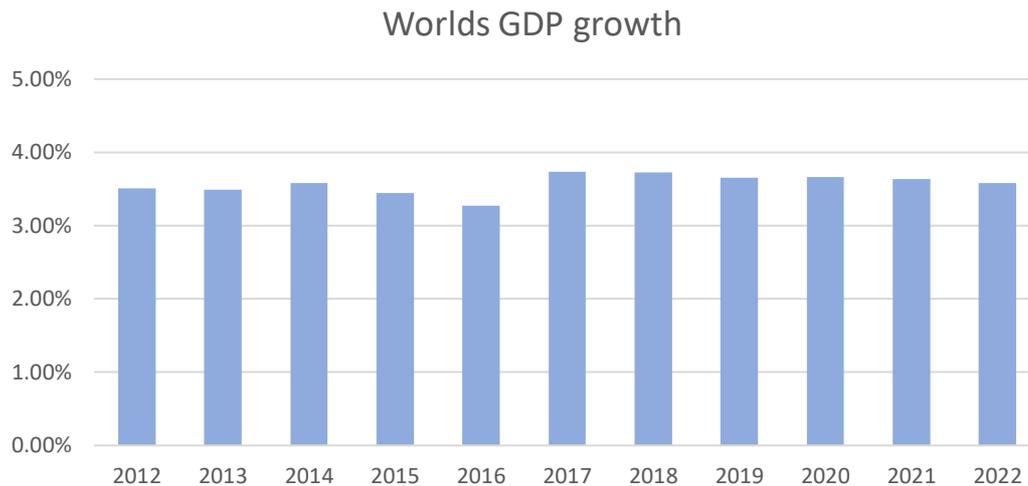


Figure 6: Worlds GDP growth. Own Creation<sup>26</sup>

According to the IMF, global economy growth is expected to be stable at 3,6% for years to come and increase to 3.7% in 2024. With this said, it is important to take Brexit and the trade war into consideration. These political events could impact the industry significantly. <sup>27</sup>

#### Oil prices

Norwegian jet fuel expenses constituted of 30,55% of the total Norwegian total expenses. In order to minimize the risk regarding the fuel price, Norwegian hedges approximately 25% of its fuel consumption.<sup>28</sup> The jet fuel price depends largely on the oil price, and this again is affected by OPEC.

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<sup>26</sup> Statista.com 2019

<sup>27</sup> IMF 2019

<sup>28</sup> Norwegian Air Shuttle. Annual report 2017

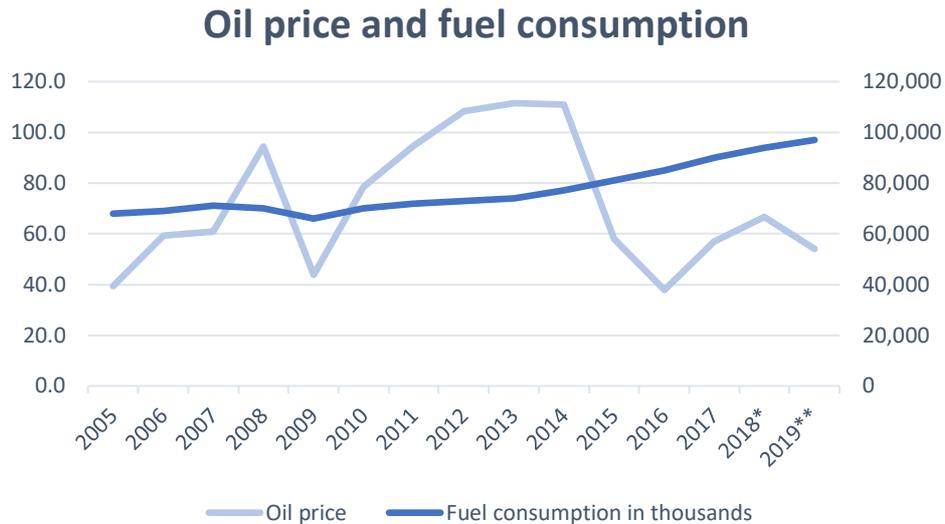


Figure 7: Oil price and fuel consumption. Source: Statista.com Own Creation<sup>29</sup>

Yet, the fuel consumption is stable in the long term. In the start of 2015, the oil price started a drop what lasted for a couple of years. Still, it is difficult to say whether this is a sustainable level for the oil price. As Boeing and Airbus continues to make aircrafts with a sufficiently lower jet fuel consumption, the demand of jet fuel will decrease in correlation with this. However, due to growth in the airline industry the demand will be satisfied over this factor.

#### *Interest and currency risk*

Both interest and currency risk are two factors that impact Norwegian greatly. Considering the debt Norwegian has acquired through unsecured bonds, aircraft and prepayment financing, loan facility and financial lease liabilities they are highly exposed to interest rate changes. A substantial part of Norwegian revenue and expenses are denominated in foreign currencies. Due to Norwegian global expansion, the revenue in foreign currencies will increase. Norwegian uses derivatives for hedging in both interest in the interest-bearing assets and liabilities as well as for its currency risk.<sup>30</sup> We believe that these risks are mainly affected by the oil price and GDP, and of course the political outcomes of the trade war and Brexit.

*As a result of the topics discussed one can conclude that the outlook is positive but is also uncertain due to a lot of political risks. As the oil price is a substantial cost for Norwegian in line with the interest rates due to being highly leveraged, we believe that these economic*

<sup>29</sup> Statista.com 2019

<sup>30</sup> Norwegian Air Shuttle. Annual report 2017

*factors are key drivers for change. As OPEC follows the oil market carefully, we believe that oil prices will stay relatively stable in the short and mid-term. The increase in political risk and production in WTI from the US on the other hand, might affect the prices both ways long-term. The period of historically low interest rates is also over and increases interest expenses. These are all factors that will be taken into account when conducting the analysis.*

### Socio-cultural factors

*“Socio-cultural factors include changing in cultures and demographic.”<sup>31</sup>*

According to Iata.org the demand for air travel is likely to double over the next 20 years. As a result of this, fares will most likely keep the ticket prices down or even become cheaper. A bigger amount of the world’s population will be able to afford these which is what Norwegian plans to take advantage of. This backs up the assertion that the fastest growing market will be Asia. Iata expects some low-income countries to become middle- or high-income countries. Between these countries there is a significant difference. Low-income have 0,04 trips per year per person, while middle- and high-income countries have 0,29 and 1,48 trips respectively per year per person.<sup>32</sup>

It is important not to forget the emerging substitute amongst travelers which is Skype, Facetime, WebEx and etc. Especially in the business world real-life meetings has been substituted by virtual meetings due to lower cost and time not being wasted travelling.

Another factor is the popular search tools such as Momondo, Expedia, Finn.no etc. With these search engines you can put in specific requests, and the search-engine will provide you with the cheapest and fastest flight customized to your needs. This way of booking flights has completely changed from 5-10 years ago where you physically had to pick up the phone and call the airline just to book a ticket. Considering how many people that are price aware, this has done a significant impact on the LCC’s and their demand.

*We consider these socio-cultural factors key drivers for change. This is due to the trend changes in airfares, change in market, increased globalization and technological substitutes*

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<sup>31</sup> Johnson et al 2009: p.55

<sup>32</sup> Iata.org 2019: p10-14

*such as Skype, Facetime etc. The outlook is positive because of an increased willingness of air travels.*

### Technological factors

*“Technological influence refers to such as the internet, Nano technology, new materials and better engines.”<sup>33</sup>*

The technological factors have impacted the airline industry significantly in the past. For instance, the auto-pilot and online booking of tickets. The online booking can be done together with booking hotels which makes it even easier. Future technological trends don't seem to be that substantial, but the suppliers of the engines do a great job of improving the aircraft engines to become both more powerful and fuel saving.<sup>34</sup> Onboard entertainment such as Wifi and TV screens have also been improved throughout the years. These improvements are all technological factors that are affecting the airline industry.

### *Computer and internet*

As stated under socio-cultural factors, there are emerging substitutes such as Skype, facetime, webex and etc.

### *Engine technology*

Aircraft manufacturers have in recent years developed new planes that is 20% more fuel efficient than its respective predecessor, which for instance is the case for the 737-800 and 737-Max. This means the planes can fly for a longer time (narrow-body), which opens new routes for airlines and affects the product range.

*Considering the impact technological factors have had on multiple areas of the aviation industry we assume it to be a key driver for change. The outlook for the technological factor is positive as the area is constantly under improvement/development.*

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<sup>33</sup> Johnson et al 2009: p55

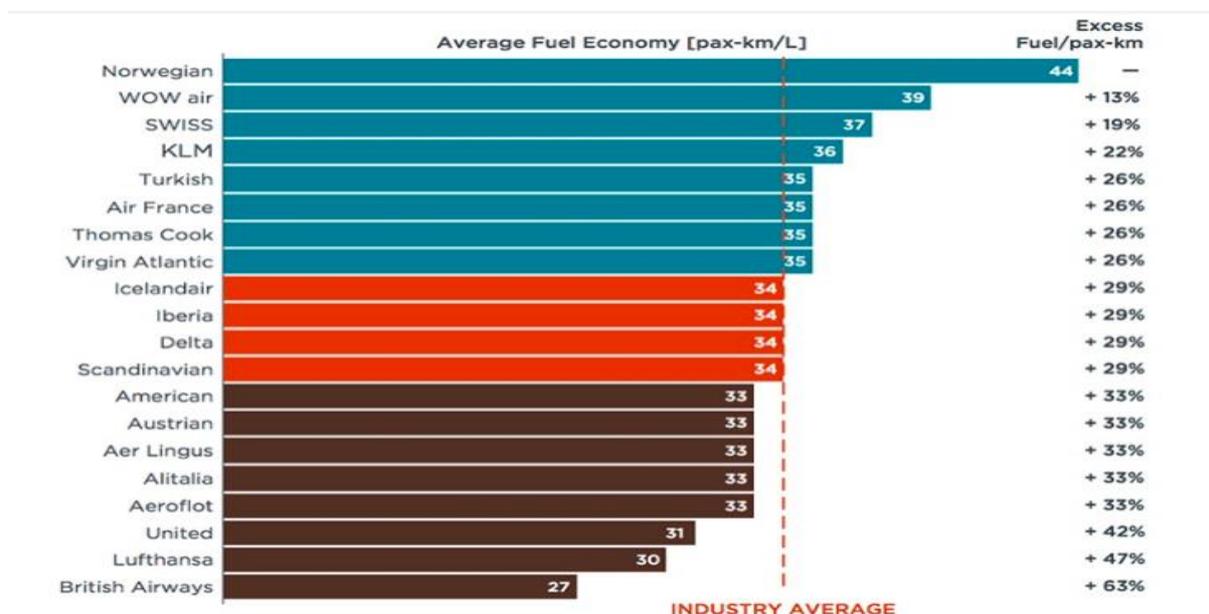
<sup>34</sup> GE Aviation

## Environmental factors

*“Ecological or environmental stands for “green” environmental issues. This is pollution, waste and climate change.”*<sup>35</sup>

The aviation industry has a high degree of pollution.<sup>36</sup> With that said, organizations like the European Economic Area (EEA) are fully aware of this. They make the airlines pay for every flight the emission of CO<sub>2</sub> it lets out to the atmosphere. As stated in the European aviation environmental report it is predicted that the CO<sub>2</sub> emissions will almost double between 2014 and 2035.<sup>37</sup> The airlines have reduced their emission of CO<sub>2</sub> due to the tightened standards by the Committee on Aviation Environmental Protection (CAEP).

Norwegians ambition is to continue to reduce their emissions per passenger and contribute that by 2050 the aviation industry is carbon neutral. Norwegian is reducing their emissions by flying the most modern and fuel-efficient aircrafts, they do this by buying new fuel-efficient planes and fleet renewal. Norwegian has also taken an initiative called the “Plant a tree” initiative. This means that they will plant a tree for every employee working at the airline, in other words they will plant thousands of trees.



<sup>35</sup> Johnson et al 2009: p.55

<sup>36</sup> Wilkes, W. 2019

<sup>37</sup> EAE (2016): p6

Figure 8: Average Fuel Economy. Creation: Norwegian.<sup>38</sup>

According to an analysis done by the International Council on Clean Transportation (ICCT) Norwegian is by far the most fuel-efficient airline on transatlantic routes. This is the second year Norwegian has been awarded with the title.<sup>39</sup>

In the presentation of the airline industry we mentioned the new point-to-point flying instead of the traditional hub-and-spoke which is how the traditional airlines operate. The point-to-point flying is more environmentally friendly and gives significant reduction in the CO<sub>2</sub> emissions due to fewer take-offs and landings.

Norwegian has also made a deal with AVTECH Sweden. The company delivers exact wind- and temperature information regarding the routes they are flying. This helps the pilots to optimize the route, to both give the passengers a more comfortable flight and to reduce the amount of fuel used. All of Norwegian's aircrafts have winglets which decrease the air resistance and results in less engine thrust and by that reducing the use of fuel.<sup>40</sup>

As shown in figure below, Norwegian has from 2008 to 2017 reduced their CO<sub>2</sub> emissions per RPK with 30% and have a plan to reduce this even more.<sup>40</sup>

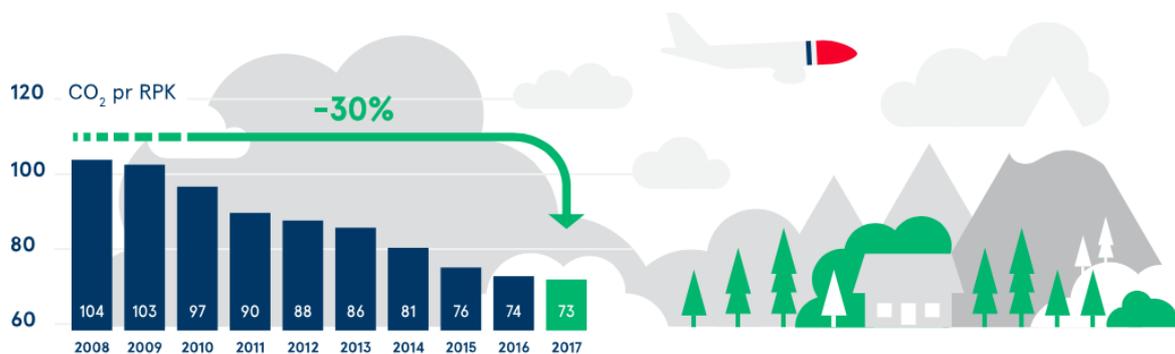


Figure 9: Co2 reductions. Creation: Norwegian<sup>40</sup>

<sup>38</sup> Samfunnsansvar. Norwegian Air Shuttle.

<sup>39</sup> ICCT 2018

<sup>40</sup> Samfunnsansvar. Norwegian Air Shuttle.

## Natural disaster

In terms of the climate change we are facing, what comes along with this is the fact that there will be more incidents of extreme weather and natural disasters.<sup>41</sup> As NASA predicts, hurricanes will become stronger and more intense than ever before. The effects of the climate change will at times impact the airlines with delays and cancellations. The weather will make the flying conditions more difficult and result in an increase in the use of fuel.

*We believe that the effects of the environmental factors are of such meaning that they are considered key drivers for change. The overall trend here is a bit split due to climate change negatively affecting the industry, but at the same time new regulations and increased focus on the environment is positive. Therefore, we consider the overall picture to be positive.*

## Legal factors

*“Regulatory constraints or changes are considered legal factors.”<sup>42</sup>*

In recent years there has been a heated discussion around Norwegians use of employees from Thailand. Norwegian has been accused for social dumping because of the use of hired workforce from Thailand on the long-haul routes. This reduces the employees job security and gives the airlines an increased flexibility. This type of manpower has created a fuss in Norway. Norges Landsforbund which is an organization consisting of employees who are working for their rights took legal actions against Norwegian due to the use of employees from Thailand. Norwegian won this case and the leader of Norsk Flygerforbund stated that the result would negatively impact the airline industry in Norway and how airlines would operate in the future.<sup>43</sup>

Norwegian established a subsidiary in Ireland called Norwegian Air International. Considering NAI have an EU AOC, they can operate under the open-skies agreement. However, the American department of transportation did not approve the NAI’s application because of the new structure had raised some concerns regarding its legitimacy as well as it

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<sup>41</sup> NASA Climate

<sup>42</sup> Johnson et al 2009: p.55

<sup>43</sup> LO Norge 2019

drew a lot of negative attention from US airlines. They claimed that they were undermining the labor rights and the standards given. Norwegian were able to bypass the strict Norwegian labor laws which included a high social charge. Due to the more flexible Irish law, Norwegian were now able to hire staff based in Bangkok and other low-cost countries. It was not just because of the labor cost Norwegian based their subsidiary in Ireland. The low corporate tax in Ireland made it even more beneficial to register the aircraft fleet. It wasn't before 2016 that Norwegian were granted the license to fly to and from the US, and Bjørn Kjos said at this point that they were now ready for even more expansion. All in all, this puts an even more pressure on the low-fare tickets and the need to cut cost for the traditional carriers.

*Due to the trend of using hired staff from outside countries to exploit the cheap labor cost, we consider legal factors a key driver for change. In the future, such legalities will impact the future aviation industry in terms of salary and job security.*

*The PESTEL analysis tells us that the macro-environment consists of both possibilities and threats. All in all, the outlook from the political picture, economic condition, social trends and the technological picture are good. These factors yield possibilities for the airline industry. Considering the legal and environmental factors there are some threats in the horizon that consists of some challenges. To conclude, all these factors are key drivers for change which means that the airline industry is quite sensitive and yields uncertainty.*

## 2.2 Supply and demand

To really understand the key drivers in the PESTEL analysis, it is important to understand the supply and demand picture in the airline industry. The aviation industry has been on quite a rollercoaster over the last decades due to happenings such as the deregulation in the 1990s, the open-skies agreement and so on.

### Supply

We have chosen to show the supply with a graph consisting of growth in ASK (Available seat kilometers) and the YoY growth for the demand in airline industry (year on year). This graph will show how the growth is compared to ASK and YoY in the worldwide aviation industry.

As the LCC's and the new competitors ULCC (Ultra low-cost carriers) have entered the market they have increased the supply side and made it possible to follow the year on year growth in the worldwide market. The compounded annual growth rate also known as CAGR is 5,2 %.

**Development in the worldwide ASK and YoY growth**

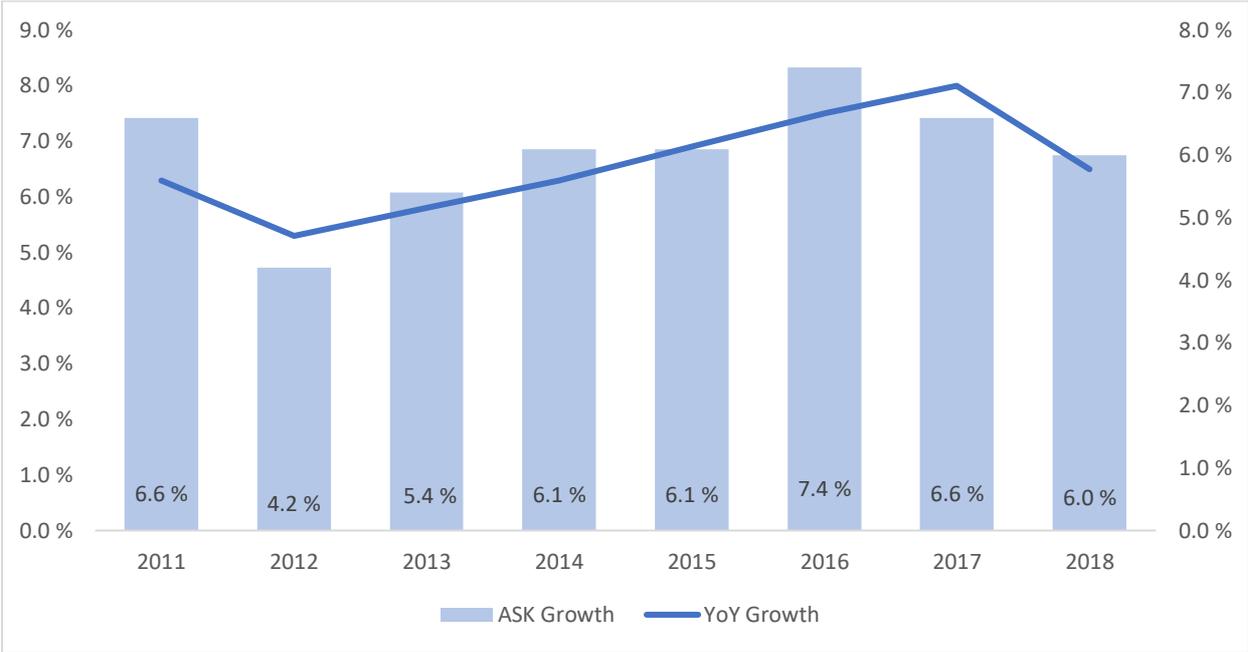


Figure 10: Development in the worldwide ASK and YoY growth. Own creation.<sup>44 45</sup>

Demand

Demand in the airline industry is described as an intermediate good in that sense transportation is used to fulfill another purpose. Very few people fly merely for the sake of flying.<sup>46</sup> Our demand is characterized by revenue-per-kilometers, which describes how many paying customers that's carried. As shown in the graph below you can see the development between revenue-per-kilometers and the year-on-year growth. Over the years the demand for world-wide air travels has been growing steadily with 5,02%.

**Development in the worldwide RPK and YoY growth**

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<sup>44</sup> Statista.com 2019.  
<sup>45</sup> Statista.com. 2019  
<sup>46</sup> O'Connor, W. E. 2001: p. 103

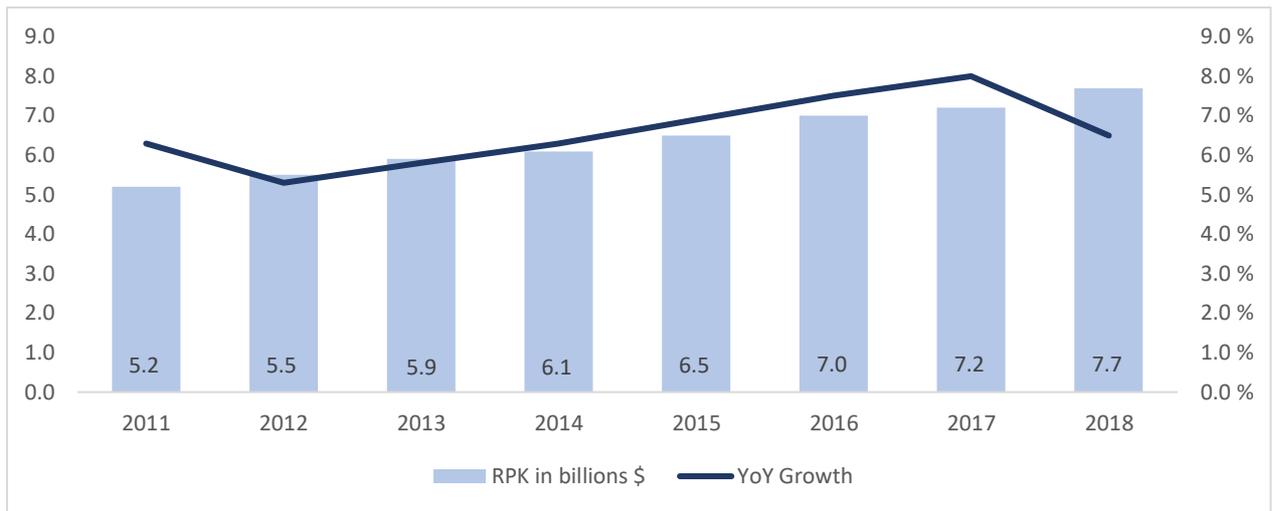


Figure 11: Economic development in ASK and RPK. Source: Icao.int Own creation (Icao.int)<sup>47</sup>

### Supply-Demand equilibrium

Regarding the equilibrium there are some factors that plays a significant part. There are two certain factors that affects the low fares today. Firstly, a continuation of unprofitable companies where the stakeholders are better off with keeping the company alive than with a liquidation, will keep the fares lower. This means that the airlines are offering a higher capacity than they actual can handle. It is both harmful and are keeping the business unprofitable.<sup>48</sup> As seen in figure 12 we have illustrated the CAGR in both ASK and RPK, this is seen from a micro perspective view.

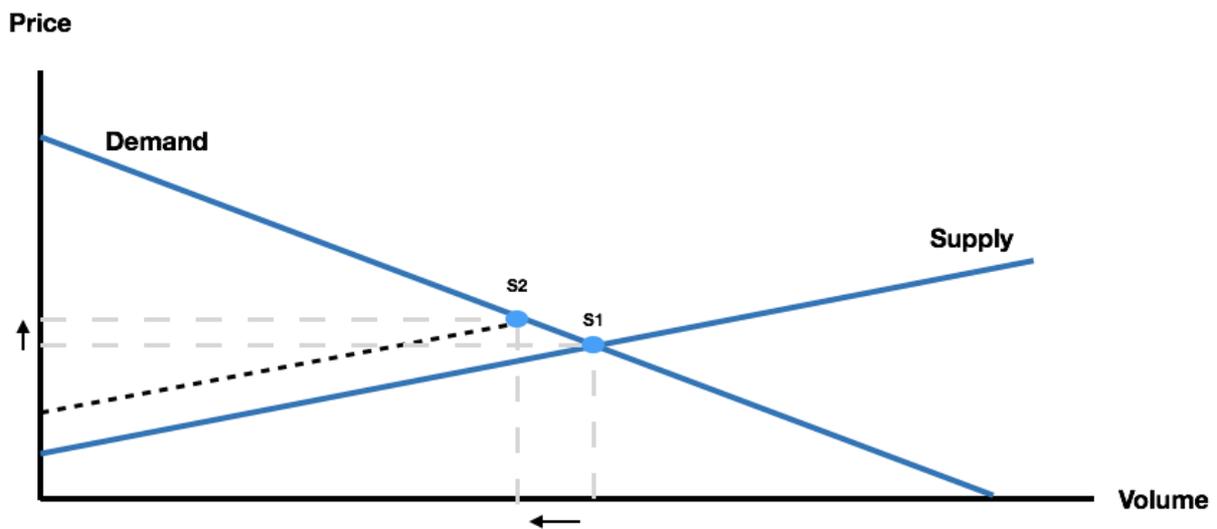


Figure 12: Supply and demand curve due to low fares and high available-seat-kilometers. Own creation.

<sup>47</sup> Icao 2018

<sup>48</sup> Investopedia Staff 2017

As the airlines continues to fly with low fares and high volume, we will be at point S1 which is today's equilibrium. Anyway, if the unprofitable airlines did not fly and investor realized their losses, we would move to point S2. This would give a lower volume, but a higher fare price. This equilibrium and the increased load factor would've been healthier for the industry compared to today's scenario.

Secondly, we have the exogenous negative shift in the supply and demand curve. A negative demand shift could for example be terrorist's attacks and diseases. An example of negative supply curve could be such as bad weather, staff strikes and economic changes. Such negative demand and supply shifts are usually temporarily but affects the financial results for the airlines. Below you can see a graph from a microeconomic perspective.

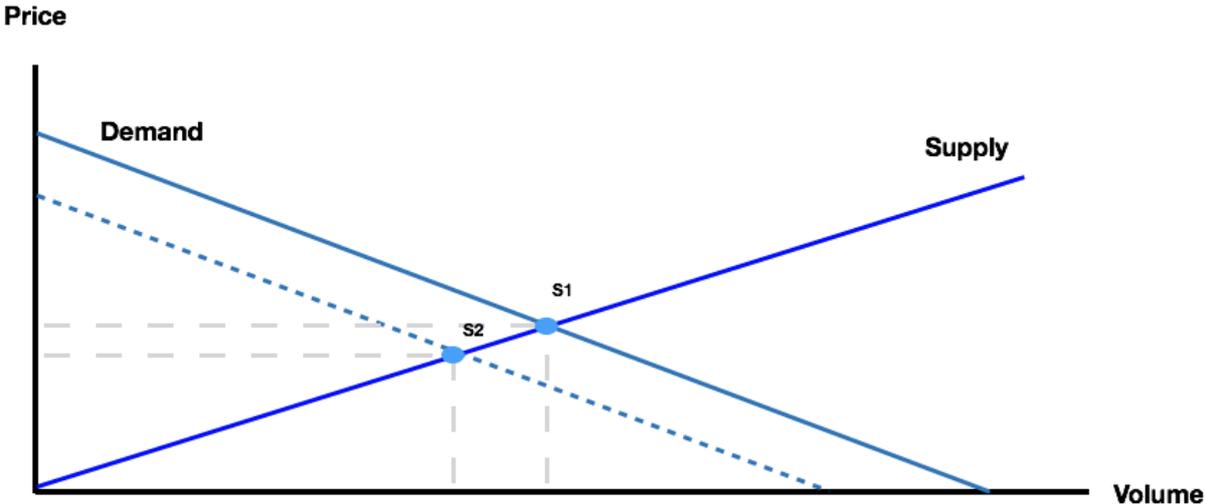


Figure 13: Negative demand and supply shift due to exogenous demand shifts.

The graph simply explains how demand can shift negatively temporarily. The equilibrium today is at point S1 where the supply curve meets the demand curve. With a negative demand shift, for example with a terrorist attack the demand will shift southwest creating a new equilibrium at point S2. Such negative happenings will harm the airline industry significantly.

## Price elasticity

Price elasticity is an important aspect of the supply and demand curve.

*“Price elasticity is defined as an economic measure of the change in the quantity demanded or purchased of a product in relation to its price change.”*<sup>49</sup>

Passengers demand shows a little bit of difference regarding the business and leisure part, and long-haul/short haul. We can see that with the long-haul international business the price elasticity is -0,27 which is very low, and the passengers do not respond much to changes in the price. The long-haul international leisure price elasticity is -1,04 which is a significant larger number than with business. This is because companies pay for flex tickets and are less sensitive to price changes, while leisure travelers are normally people paying out of their own pocket and is a lot more aware when it comes to prices. There's also a study that shows business travelers to be less sensitive to changes in the fares compared to leisure travelers.<sup>50</sup> The major difference is between short-haul leisure and short-haul business, where the numbers are -0,70 and -1,52 respectively. This means that leisure travelers are way more sensitive for a price change in the airfare.

*To summarize the price elasticity, we can say that this is driven by competition and overcapacity in the market. These factors can be explained by airlines running their operations unprofitable which creates a supply-and-demand equilibrium that is only favorable for the end consumer.*

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<sup>49</sup> Kenton W. (2018)

<sup>50</sup> Department of Finance Canada. (2008)

## 2.3 Porters five forces

Porters five forces model is designed to reveal insights in the competition. Porter wrote in an article for the Harvard Business review article:

“Understanding the competitive forces, and their underlying causes, reveals the roots of an industry’s current profitability while providing a framework for anticipating and influencing competition (and profitability) over time.”<sup>51</sup>

The model identifies and analyses five competitive forces that shapes every industry and helps determine an industry’s weaknesses and strengths. Porters model can be applied to any segment or industry to search for profitability and how to see how attractive the industry is. The framework of Porters model tells us how attractive an industry is in terms of the five forces:

1. Threat of new entrants
2. Threat of substitute products
3. Power of buyers
4. Power of suppliers
5. Competition in the industry

If the five forces are high the industry is not attractive to operate in.<sup>52</sup>

It is important to mention the fact that this strategy was developed in the 1980’s and at a time where the market was static. The corporations were quite predictable at that time. As Dagmar states in an article for the Themanager.org, the business environment has changed since then, the market is now more dynamic than before and is constantly changing.<sup>53</sup> The term VUCA-world describes a new external environment of volatility, uncertainty, complexity and ambiguity. Start-ups with a technological breakthrough or market entrants from other industries may completely change the business models. With this said, we still believe that the framework of Porters five forces will give us good insights and a good understanding of the forces at hand of the industry.<sup>53</sup>

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<sup>51</sup> Marci, M. (2018)

<sup>52</sup> Chappelow J. (2019)

<sup>53</sup> Recklies, D. (2015)

### Competition in the industry

Competition in the industry is when organizations offer the same products or services to the same customer group. As the competition increases, firms must eventually compete on prices. As the airline industry already is highly competitive, falling prices are not good for the profitability.

The Scandinavian market mainly consists of two carriers. This is as mentioned earlier Scandinavian Airlines and Norwegian Air shuttle. These two carriers together make up for a bit over 50% of the market share in Scandinavia. However, as stated in 1.2 there are smaller competitors that is increasing the total capacity in Scandinavia which puts pressure on fares.<sup>54</sup>

Airbus is forecasting an annual growth of 4,4 % every year until 2037 in the airline industry. This means that the industry is a mature industry. A mature industry is a low growth industry which is characterized by price competition and low profitability. The low growth rate indicates a high level of competition in the industry.<sup>55</sup>

High fixed cost industries such as the airline industry are often more rivalrous than industries with low fixed cost. The reason for this is the fact that by increasing the volume, the cost for each passenger will drop. Every airline seeks to reduce their unit cost to generate more profit.<sup>55</sup> Another important factor that comes with high fixed cost is the high exit barriers. All the airlines have investors that have made huge investments into the firms. This means that for an investor to exit the market is expensive, in other words the exit barriers are high. As mentioned earlier airlines are running unprofitable just because it is more costly to liquidate the airline instead of continuing to run with losses. *In terms of high fixed cost and high exit barriers we can for sure say that this indicates a highly competitive industry.*

*After looking at the competitive rivalry, including forecasted growth, the high fixed cost required to operate in the industry together with the high exit barriers tells us it's a highly rivalrous industry. This indicates that the conditions are very tough.*

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<sup>54</sup> Warner, A.G 2010: p.74

<sup>55</sup> Airbus/Schulz, E. 2018: p.5

## Threat of entry

The easier it is to enter a new industry, the higher the competition will be in that industry. As the airline industry is an economy of scale it is considered to be a capital-intensive industry with low profit margins. We consider a threat of entry could be from already existing airlines who want to enter a new market. These airlines usually have fully working systems and aircrafts ready to be put into the new market. On the other hand, setting up a base and leasing aircrafts does take away a lot of the entry barrier.<sup>56</sup> It still requires a lot of cash and in addition to this the industry is highly labor-intensive and unionized, which means that it is difficult to negotiate on payroll expenses. *Considering the scale and experience needed in the airline industry it indicates a moderate threat of entry.*

Differentiation in the airline industry reduces the threat of entry. In other words it tells us that the easier it is to differentiate a product, the higher the threat of entry is.<sup>56</sup> An airline has different attributes to differentiate themselves on. These attributes include price, availability, destinations, connectivity, reward programs, comfort and at last service. For example, you have the LCC's who offer low fare prices, more inconvenient airports, point-to-point destinations, low comfort and service. In contrast to the LCC's you have the full-service carriers such as SAS. Full-service carriers usually get higher fares, more convenient airports, hub-to-spoke network, good connectivity, decent comfort and service. Such full-service carriers usually belong to an airline alliance. These alliances usually include perks like fast-track, lounge access, frequent flyer discount, additional luggage etc. *Differentiation is possible to a certain level in the airline industry and indicates a moderate level threat of entry.*

*When evaluating the scale and experience, the possibility to access and the opportunities for differentiation in the industry we find the threat of entry moderate to high.*

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<sup>56</sup> Warner, A.G. 2010: p.44

### Threat of substitutes

Substitutes can reduce demand for a product as a customer always will switch to the more suiting alternative. A substitute is a product or service that offer a similar benefit to an industry's product or service, but in a different way or process.<sup>57</sup> Regarding substitutes there are two points bearing in mind.

#### *The price/performance ratio*

In today's market the price is usually the crucial factor. This of course depends on the distance. In the case of the airline industry substitutes are trains, high speed trains, cars, busses and ships. Comparing flying to busses and ships, this is usually more time consuming. In other words, the performance of airplanes is better. What is important to bear in mind is the fact that busses, ships and trains are usually cheaper than flying. In other parts of the world, for instance Japan, high-speed trains are a significant substitute for air travel.<sup>58</sup> These trains can travel at a speed of 320 km/h, making it a reasonable substitute for air travels. However, in Scandinavia such high-speed trains are not in place. Due to cities where the population is not large enough and the fact that Scandinavian countries are surrounded by sea, such high-speed trains will not be a lucrative investment. This means that the price/performance ratio works in Norwegian's favor in Scandinavia.

*In the Scandinavian market, the price/performance ratio works in favor for air travels which indicates a low to a moderate threat.*

#### *Extra-industry effects*

Extra-industry effects are the core of the substitution concept. It forces managers to look outside their industry to consider more distant threats and constraints.<sup>59</sup> As we discovered in the PESTEL analysis in chapter 2.1 video-communication software like Skype and WebEx are examples of possible substitutes. These are to some degree substitutes, especially in terms of business travelers. Video-communication does not impact the demand for leisure travelers significantly. For a tourist traveler wanting to see new cities and experience new countries video-communication is not an option. It is expected that the leisure and business travels will

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<sup>57</sup> Johnson, G. et al 2009: p.62

<sup>58</sup> Hornyak, T.

<sup>59</sup> Johnson et al 2009: p.62

continue to grow in a rapid speed, and this is especially in the BRIC countries such as India, China, Russia and Brazil.<sup>60</sup> Therefore, we don't find this as a concerning factor.

*All in all, considering price/performance ratio we find the threat of substitutes to be a moderate threat in the Scandinavian market.*

### The power of buyers

The buyers in an organization is the immediate customers, and not necessarily the ultimate customers.<sup>59</sup> The power of buyers is affected by factors such as price sensitivity, concentration of buyers, switching cost and the buyer competition threat.

The factor that probably affects the buyer the most is the price. When buyers are price sensitive, you lose buyers quickly when increasing the price. The airline industry is under massive competition, especially with the up and coming LCC's and the newest airlines utilizing the ULCC model.<sup>61</sup> This means that it is more important than ever to have a fuel-efficient fleet and a cost-efficient business model. In fact, Norwegian owns the most fuel-efficient fleet in Europe.<sup>62</sup> A high concentration of buyers means that there are large portion of customers that account for most of the sales. In the airline industry there exists big customers such as travel agencies, the government and companies that have a deal with an airline. Such organizations are still not able to bring the prices down. This means that the concentration of the buyers is low.

The switching cost means that when a customer easily can switch between suppliers of the good of another, the switching cost is low.<sup>58</sup> Looking past the price of fares, what the airlines do to retain customers is to offer loyalty programs which includes extra baggage, lounge access, fast-track and deals with partners such as car rentals and hotels. What the passenger's value is, is individual and dependent on if it's business or leisure. A business traveler would most likely prefer fast track and lounge access, while a leisure traveler would value low ticket prices more. It is important to state that the products airlines provide are undifferentiated, which means that paying more for almost the same product makes no sense.<sup>63</sup>

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<sup>60</sup> Rosen, E. (2017)

<sup>61</sup> Boyd, M. (2018)

<sup>62</sup> Norwegian Air Shuttle. 2017. Om oss

<sup>63</sup> Warner, A.G. 2010: p.63, 69

The buyer's competition threat is when the buyer can produce or provide the service themselves, then the buying power of the customer increases.<sup>64</sup> In the airline industry no customers are able to provide air travels themselves. The only exception is if they use private jets, which is in very few cases.

*As the buyers are price sensitive, the concentration of buyers is low, switching cost is moderate and the buyer's competition threat indicates that the overall power of buyers is low to moderate.*

### The power of suppliers

The suppliers are those who supply the organization with what it needs to deliver a product or service. The power of buyers is affected by factors such as concentration of the suppliers, high switching cost and the supplier competition threat.<sup>63</sup>

The supplier has more power the more concentrated the suppliers are.<sup>63</sup> The industry is characterized by having few, but very good aircraft manufacturers. The two main manufacturers of aircrafts are American Boeing and the French manufacturer Airbus.<sup>65</sup> Two other important cost items are jet fuel and staffing, so we assume staff as a supplier. The amount of jet fuel providers is few, but due to hedging it is possible to take away a lot of their power. Regarding staffing there are unions that work as a "dealer" for the employees, meaning that the staff has an increased power over the airlines due to strong unions.

High switching cost means that the power of supplier is high. In other words, it is costly to move from one supplier to another.<sup>66</sup> It is common that an airline uses the same manufacturer on airplanes. This is probably due to a better deal with the aircraft manufacturer and the time saving cost on educating new pilots on different types of aircraft. This implies a moderate switching cost.

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<sup>64</sup> Johnson, G et al: p 62-63

<sup>65</sup> Team Dretloh (2018)

<sup>66</sup> Johnson, G et al: p 55

The supplier competition threat is basically about cutting the middleman in transactions, such that you move towards the ultimate customer. An example for this was when online booking entered the market. Then you were able to skip the middleman called travel agencies. At this moment there are no immediate threats.

*Due to moderate concentrated suppliers and a high switching cost along with a low supplier competition threat we conclude that the power of suppliers is low to moderate.*

### Conclusion of Porter's five forces

*We have concluded with the fact that there is an intensive competition in the airline industry. The airline industry gets a mixed score on the 5 factors in the analysis. Due to a capital-intensive industry along with an intense competition we find it difficult for new competitor's to enter the market. We consider the threat of substitutes to be low because the Scandinavian countries are surrounded by sea and consists of mountain landscape. All in all, the rivalry together with an intense competition puts pressures on margins of the company and leads to reduced profitability.*

## 2.4 Strategic groups

In the airline industry we have two strategic groups. These groups are divided into point-to-point network which is mostly used by the low-cost carriers and the hub-and-spoke network which is mostly adopted by the full-service carriers. This has been described in section 1.1.

As Norwegian Air Shuttle's biggest competitor in Scandinavia SAS is included in Star Alliance giving the frequent flyers perks affects negatively on Norwegian. Norwegian do have their own reward program as mentioned earlier, but this can only be used on Norwegians flights. The Star Alliance perks works in several airports and on every star alliance flight. Graphics have conducted a research to see whether customers are willing to pay more to fly with the preferred airline. The answer was negative. Around 52% answered that they were not willing to pay more to fly with a preferred airline. The rest answered either don't know or a bit more. In this case, this is giving the LCC's a significant advantage in terms of fare prices. As companies in Scandinavia, and especially Norway, has become more conscious about their

costs, it is to believe that fare prices are and will be a significant factor when buying airline tickets in the future.<sup>67</sup>

Are you willing to pay more for a plane ticket to fly with your preferred airline?

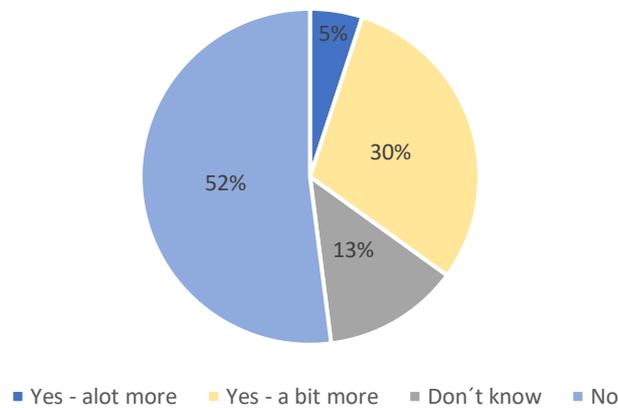


Figure 14: Preferred airline Source: Thomson Reuters. Own creation.<sup>68</sup>

The research amongst the willingness to pay more to fly with a preferred airline was done with a population of roughly 2.316 people all over 18 years old. As a demarcation this research has been done in America, but we do believe that it is possible to draw lines to Norway as well. Such outcome in a research we find to be positive for Norwegian due to the low fares that they are supplying.

*There are two strategic groups, LCC's and FSC's. Having in mind that FSC's are in alliances, there is reason to believe that LCC's will experience a high demand due to the sensitivity of fare prices.*

## 2.5 Internal analysis

To be able to assess how Norwegian is positioned in the market compared to other competitors, we find it important to conduct an internal analysis of Norwegians strengths and weaknesses. In this assessment we will use VRIO's framework. The reason is that it is structured in a way that enables you to look at how a company can utilize its resources and capabilities, and to find out if they can be a source of sustained competitive advantage. The

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<sup>67</sup> Micaelsen, T. (2013)

<sup>68</sup> Huang, H.

aspects of VRIO (Valuable, Rarity, Inimitability and Organizational support) are considered as capabilities necessary to gain a competitive advantage over time.

#### *Valuable*

*“Strategic capabilities are valuable when they create a product or service that is of value to the customer and if, and only if, they generate a higher revenue or a lower cost or both.”*<sup>69</sup>

#### *Rarity*

*“Rare capabilities are those who are possessed uniquely by one organization or by a few others. Competitive advantage here is longer lasting.”*<sup>62</sup>

#### *Inimitability*

*“Inimitability is when competitors find it difficult and costly to imitate, obtain or substitute. Often do barriers to imitation lie deeply in the organization, and is usually activities, skills and people.”*<sup>68</sup>

#### *Organizational support*

*“As providing value valuable products with rarity that is difficult to imitate requires an organization that is suitably organized to handle and support these capabilities.”*<sup>70</sup>

#### Aircraft fleet

Norwegians fleet mainly consists of two types of planes. The Boeing 737-8 and the 787-8/9 Dreamliner. As a disclaimer, they are in possession of different generations of these planes such as 737MAX and the 737NG. NAS is now phasing out some of the 737NG and are selling these off to replace them with the 737MAX and the Airbus A320NEO. These planes are more fuel efficient and requires less maintenance compared to the older 737.<sup>71</sup>

Norwegian has over the 10 last years reduced their Co2 emissions per passenger kilometer with 30% and are in possession of the greenest fleet on earth with an average age of just 3,5 years. Norwegian was in 2017 named the most fuel-efficient airline on transatlantic routes by

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<sup>69</sup> Johnson, G. 2009: p. 76-77

<sup>70</sup> Johnson, G. 2009: p. 80

<sup>71</sup> Norwegian Air Shuttle (2019). Investor presentation.

the international Council on Clean Transportation.<sup>72</sup> As a result of this Norwegian is 33% more fuel efficient on the transatlantic long-haul routes than the industry average.

By comparing the fleet of NAS with Easyjet, Ryanair and SAS we will find that the common strategy of the LCC's is that they are flying with a uniform fleet just as NAS do. Ryanair only operates Boeing 737-800 and Easyjet operates Airbus A320 and A319 for their routes. SAS on the other hand operates multiple aircraft due to that they are a full-service carrier and not a low-cost carrier. By comparing Norwegians fleet to Ryanair's we quickly see that Norwegians own fleet of 163 airplanes compared to Ryanair with over 300 have a disadvantage. In terms of aircraft fleet Ryanair can maintain a higher market share in Europe. Norwegian has in the fiscal years experienced a massive growth which has resulted in massive investments along with losses. Due to this Norwegian has started a program called #focus2019. They are now focusing on becoming profitable and are putting delivery on airplanes on delays, cutting cost and cutting routes. This will have a significant impact on NAS' future and evidently the way we conduct our forecasting.<sup>73</sup>

*As Norwegian's fleet has an average age of 3,7 years we believe that this gives them an edge in the airline industry due to fuel-efficiency. In terms of investments and financing this could be hard to imitate. As Norwegian have gotten an accept on the financing part, we believe that the structure of the organization is supporting the new fleet in an effective way. We don't believe that this is a sustainable competitive advantage.*

### The Norwegian brand name

Norwegian has over the years been known for having a good reputation. In 2015 Norwegian experienced a massive strike from the pilots. The strike came close to all pilots working for Norwegian striking and resulted in a loss of about 350M NOK.<sup>74</sup> Norwegians reputation dropped after the strike. A couple of years after the strike when things got back to normal Norwegian received awards for being the 2<sup>nd</sup> best low-cost carrier in the world and the best in Europe. This is just some of the awards they received. We have listed more of them in section 1.2. It is only in the later years Norwegian has been growing internationally and have gotten a reputation around the world. Norwegians peers have also received awards. EasyJet for

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<sup>72</sup> Norwegian Air shuttle (2017). *Sustainability Report*.

<sup>73</sup> Norwegian Air Shuttle. (2018) *En av de yngste og grønneste flåtene I verden*

<sup>74</sup> Framstad, A. Aarø, J. (2015)

example has been rewarded with being the 3<sup>rd</sup> best LCC in the world, Ryanair has been rated as the 11<sup>th</sup> best and Norwegian as the 2<sup>nd</sup> best just behind Air Asia in 2018. Ryanair has been given a lot of negative PR due to poor passenger experiences and small hidden costs. From a customer's point of view, it is more likely for them to fly with an airline with a good reputation instead of a bad one. Because of Norwegian's strong brand name, we assume that the organizational structure is supporting the brand name in an effective way.

*This leads us to believe that Norwegian's brand name is rare and valuable along with their reputation. As the brand name and reputation is built on their strategy and vision it is hard to imitate.*

### Financing

The winter of 2012 Norwegian Air Shuttle made the largest aircraft order ever made in Europe with an order of 222 planes, whereas 122 planes were from Boeing and 100 planes from Airbus. A huge order like this comes with a large discount and is even speculated to be up to 50% of the retail price.<sup>75</sup> In the airline industry it is normal to start selling of planes after using them around 8 years. After depreciation it is speculated that Norwegian have been flying for "free". And not enough with that, the demand for new planes is so high that the price with discount is almost the same as the selling price after 8 years. In other words, Norwegian could profit from selling or leasing the new planes that they ordered as an option to using it themselves.<sup>75</sup>

*It is to be believed that this is a temporarily competitive advantage for Norwegian, but due to the high risk it can also affect the company in a negatively manner. Whether the organization is able to support the investment or the expansion with these planes depends heavily on future results and therefore involves high risk. Considering this, we still find this valuable and rare.*

### Management

Norwegian's management consist of people with long and heavy experience in the airline industry.<sup>76</sup> We believe that experienced management in an intense competitive industry is highly important. In terms of management it is natural to mention the charismatic founder and CEO of Norwegian, Bjørn Kjos. We can for sure say that Bjørn Kjos is one of the main

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<sup>75</sup> Eikeland, E. (2012)

<sup>76</sup> Norwegian Air Shuttle. (2017) *Annual report*

reasons for the fantastic adventure Norwegian Air Shuttle has been. The management with Bjørn Kjos as the CEO has taken numerous of important decisions regarding the future path. As mentioned under “Financing” where Norwegian made an order of 222 planes just shows the effort and the ability to be able to think ahead, but at the same time a high risk. Norwegian has always been an organization that has been investing in the future, both with short-haul and now the long-haul projects.<sup>77</sup> A majority of the management have worked for Norwegian in the past and climbed the latter, which means that they are experienced in terms of the operational part of Norwegian as they have been a part of it.

If we compare Norwegians CEO Bjørn Kjos to Richard Gustafson which is the CEO of Scandinavian Airlines we can for sure say that there are some inequalities. The CEO of SAS is way less charismatic than Bjørn Kjos and Ryanair’s CEO Michael O’Leary is more similar to Bjørn Kjos in terms of being charismatic and a strong leader.

In the recent months it has been announced that Norwegian is issuing shares to raise their equity. Norwegian issued in 1Q19 new shares for 3 billion NOK, this with John Fredriksen as a guarantist in the consortium. John Fredriksen is Norway’s most wealthy man. This issue of new shares has raised questions about Bjørn’s leadership and some of the investors are not satisfied with this issuing of shares due to the dilution.<sup>78</sup> In terms of issuing new shares, this doesn’t necessarily have to be a sign of weakness. The signal to the market is given when they announce the price of the shares being issued. In this case the issued shares were given a price of 33 NOK, with a current share price at the moment of announcement was 97,34 NOK. The price before the information about the issuing of new shares was 141,05 NOK. The private placement needed to happen due to the covenant demand of at least 1500 million NOK were about to be violated. Another reason was also to get enough capital to get through a tough Q1 in 2019, which is said to be the hardest quarter in the airline industry. When issuing shares to obtain capital for further growth or investments it can be looked as a positive sign, and the share price could remain at the same level as the stock price is trading at. In this case there will be no dilution, but as the issue happened due to emergency factors, it impacted the share price negatively.

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<sup>77</sup> Pareto securities. (2016) Pareto Securities: 1:25

<sup>78</sup> Solberg, S. (2019)

*Having a highly competent management in the airline industry is vital. Bjørn Kjos has for sure been a valuable asset for Norwegian's growth. Kjos fulfills the requirements of being a leader and especially in the growth phase as Norwegian has been and are still in. We believe that this is a competitive advantage for Norwegian.*

### Norwegian Reward program

Norwegian Reward is Norwegian Air Shuttle's own loyalty program for their customers. From the start in 2007 the program has experienced a remarkable growth over the years. Today the loyalty program consists of over 7,5 million members. Customers can earn CashPoints by flying, using Bank Norwegian's credit card and by buying different products or services from partners. The reward program won the price for being "The reward program of the year" in Europe/Africa in 2017 and 2018. The reward program has not just been growing in Europe, but also in the US they have reached over 1 million members.<sup>79</sup>

As the reward programs is important for flyers, frequent flyers in particular, we find that Norwegians reward program is important.

One important aspect of the loyalty program is that this only works if you fly with Norwegian. Compared to Star Alliance where you can both earn and use points with other airlines Norwegian reward do have a disadvantage here. This including the lounge access possibilities with Star Alliance which you do not have with Norwegian loyalty program.

*We find Norwegian's loyalty program to not be a sustainable competitive advantage because it is easy to imitate by the competitors. On the other hand, we do find it to be a temporary competitive advantage as it takes time to build up a similar program.*

### Conclusion from the VRIO framework

*To conclude with Norwegian's most critical resources we have found that Norwegian have one sustainable competitive advantage; the brand name. However, Norwegian has four temporary competitive advantages; the aircraft fleet, cheap financing, management and the loyalty program Norwegian reward.*

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<sup>79</sup> Kim, M. (2018)

Resource	Valuable	Rare	Difficult to imitate	Supported by the organisation	Competitive implications
Aircraft fleet	Yes	Yes	No	Yes	Temporary competitive
Brand name	Yes	Yes	Yes	Yes	Sustainable competitive
Financing	Yes	Yes	No	Uncertain	Temporary competitive
Management	Yes	Yes	Partially	Yes	Temporary competitive
Norwegian reward	Yes	Yes	No	Yes	Temporary competitive

Figure 15: Conclusion from VRIO framework. Own creation.

## 2.6 Introduction of peer groups

In order to assess Norwegian's performance it is essential to compare them with a peer group. The emphasis here is that the peer group should be similar to the company being researched, especially in terms of the main areas of the business. So, when choosing a peer group, we must look for companies with the same characteristics as Norwegian, such as the distribution channels and the products offered.<sup>80</sup> Particularly, we put emphasis on which area the airlines serve, country of origin, whether they use a point-to-point or hub-to-spoke network and the size of the company in terms of numbers of passenger capacity. In the following, we will give a short description of the peer group and what characterizes them.

### Ryanair

Ryanair is the largest LCC in Europe.<sup>81</sup> They are using a point-to-point network model and is not a part of any alliance. It is based in Dublin and was the first airline in Europe to ever carry over 1 billion customers. Ryanair are not in possession of any long-haul aircrafts to fly transatlantic at this moment.<sup>82</sup>

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<sup>80</sup> Kenton, W. (2018)

<sup>81</sup> Casey, B. (2018)

<sup>82</sup> Ryanair.com (2018). *History of Ryanair*

### Wizz Air

Wizz Air is the 4<sup>th</sup> biggest LCC in Europe and are utilizing a point-to-point network model. The company is based in Hungary and flies all over Europe. Wizz Air are not in possession of any long-haul aircrafts to fly transatlantic at this moment.<sup>83</sup>

### SAS

SAS is the only airline in the peer group that is an FSC. They are utilizing a hub-to-spoke network model and is integrated in the Star Alliance network. Due to this they can offer up to 1300 destinations together with their partners. SAS operates in Europe and at the same time both to USA and Asia. They are a huge competitor in Scandinavia and have a strong brand name. SAS is based in Solna, close to Stockholm.

### EasyJet

EasyJet is the 2<sup>nd</sup> largest LCC in Europe, just behind Ryanair. EasyJet are utilizing a point-to-point network model. The company only operates short-haul flights. EasyJet is based in London, just by Luton Airport. London Gatwick is where their biggest base is located. EasyJet mainly operates in Europe and have a few flights to Norway.<sup>84</sup>

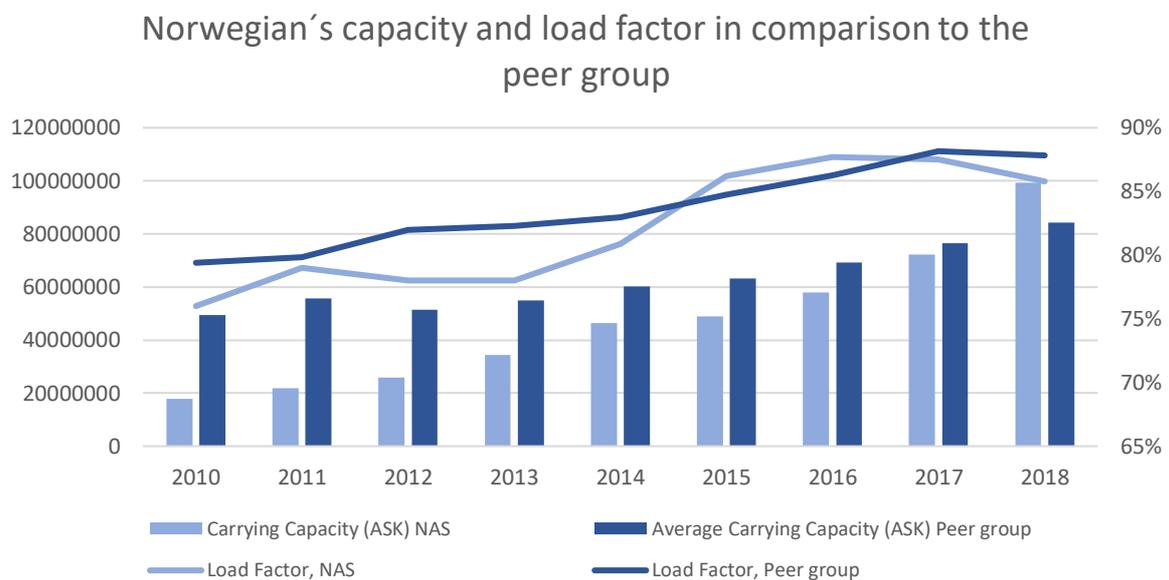


Figure 16: Norwegian Air Shuttle in comparison with the peer group. Own creation.<sup>85</sup>

<sup>83</sup> Wizzair.com. (2018). *Company information*

<sup>84</sup> Dortmund-airport.com. *The history of easyJet.*

<sup>85</sup> Numbers obtained from Reuters

*To summarize, we have chosen Ryanair, Wizzair, SAS and Easyjet as our peer group. These airlines compete with Norwegian, both on short-haul and long-haul flights. That is why we have both LCC's and FSC's in the peer group. We believe that this peer group gives a fair view on the European airline industry in which Norwegian operates.<sup>86</sup>*

*As we've gone through Norwegians strategy and positioning in the market, we move onto analyzing Norwegians historical financial statements.*

### 3.0 Financial statement Analysis

We will re-group the statement for analysis purposes, look at the company's profitability, liquidity and solvency risk. To do so we've calculated ratios and created graphs to get a better view of their financial position. We will keep in mind what we've assessed in Chapter 2 and use this information as we assess their financials.

The purpose of analyzing the financial statement of Norwegian is to reaffirm the company's position financially and how it's positioned in terms of growth, further investments and if it's being led according to guided strategies and if proposed strategies is feasible.

By looking through historical financial statements thoroughly and systematically we'll be able to make assumptions from this. According to Koller et al one should be able to document how the company has grown, created value and performed. The evaluation will also be used to forecast future cash flows reliably.<sup>87</sup>

When conducting a financial analysis of a company like Norwegian, we must use public information and to gather any information beyond this would be impossible as it would be inside-information. Therefore, there are limitations to how deep we can go into the analysis, but it will give us a good indicator of how the company has been run in the past and together with previously mentioned strategies we're able to get an understanding of how the company is positioned for any future endeavors.

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<sup>86</sup> Marci, M. (2018)

<sup>87</sup> Koller, T. M, Goedhart. Wessels, D. 2010: 335

### 3.1 Accounting Quality

When conducting a financial analysis, it is important to assess the quality of their accounting policy. Good accounting quality gives the user the necessary information to make choices in regard to the recognition of the various items in the performance measure, thus giving an objective picture of the company's financial position free from manipulation.<sup>88</sup> Changes in accounting estimates, accounting policies and impairment losses on non-current assets are all typical 'red flag' indicators.<sup>89</sup> After a thorough analysis of Norwegian's financial statement, it's clear that they show a lot of transparency and creates new definitions of cost as their company is growing, and thoroughly explains the assumptions being made when measuring certain areas of their business. This is also very helpful as airlines typically has a lot of different terms and ways of measuring that other industries normally don't have and helps us put the right costs in the right formula.

Norwegian reports consolidated financial information compliant to the International Financial Reporting Standards (IFRS) as adopted by the EU. The preparation of the accounts and application of the chosen accounting principles involve using assessments and estimates and necessitate the application of assumptions that affect the carrying amount of assets and liabilities, income and expenses. The estimates and assumptions are based on experience and other factors. The uncertainty associated with this implies that the actual figures may deviate from the estimates. Expected useful lives for maintenance reserve obligations expected and residual values of aircraft are among some of the most important estimates included by Management.

Worth to mention:

#### **Operational leases:**

*“IFRS 16 replaces the current standard IAS 17, leases and related interpretations. “The objective of IFRS 16 is to report information that (a) faithfully represents lease transactions and (b) provides a basis for users of financial statements to assess the amount, timing and uncertainty of cash flows arising from leases. To meet that objective, a lessee should*

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<sup>88</sup> Plenborg et al 2009: p. 335

<sup>89</sup> Plenborg et al 2009: p 346

*recognize assets and liabilities arising from a lease. It eliminates the difference between financial and operational leases.”<sup>90</sup>*

The paragraph above is a citation from IFRS.org and states that from 1 January 2019 companies have to acknowledge leasing obligations as assets/liabilities in their balance sheet. Airlines in particular have used leasing previously and can be seen as a way of hiding debt. Norwegian has followed this policy from Q1 2019, but as we’re analyzing the company per 31.12.2018, we must reclassify these assets ourselves. Again, this will lead to more assumptions by management and results may differ because of it.

### **Bank Norwegian investment**

*“Following a dialogue with Finanstilsynet (Financial Supervisory Authority of Norway) from the end of 2017 up until March 2018, the timing of the company’s loss of significant influence in Norwegian Finans Holding ASA (NOFI) and the discontinuation of the equity method for that investment has been changed from the second quarter of 2017 to the first quarter of 2018. Following this change, the second, third and fourth quarters of 2017 are restated when issuing the corresponding quarterly reports for 2018. Full year figures for 2017 are also restated compared to the preliminary financial statements presented in the fourth quarter report for 2017. As of December 31, 2017, the recognized value of the investment in NOFI was reduced by NOK 1,993 million with a corresponding decrease in end balance equity. Effects on the 2017 financial statements following the change back to IAS 28 also included reversal of financial gains in net profits of NOK 1,657 million, increased share of profit from associated companies by NOK 163 million and reversal of fair value changes recorded in other comprehensive income of NOK 498 million. These effects were included in the annual consolidated financial statements for 2017. From the first quarter 2018 onwards, the investment is recognized at fair value.”<sup>91</sup>*

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<sup>90</sup> IFRS

<sup>91</sup> Norwegian Air Shuttle. Annual report 2018

### 3.1 Assumptions needed for a reliable analysis

According to Kristoffersen (2014)<sup>92</sup> a financial statement analysis should be done by following 4 steps:

- Critical run-through of the historical financial statements
- Regrouping of the financial statements for analyzing purposes
- Estimating key figures
- Conclusion using the result

As Norwegian is noted on the stock exchange in Norway (OSEBX) there are reasons to believe that the accounting is of high quality due to the restrictions and rules they must follow. See section 3.1 Accounting Quality.

Further on we will look at the financial statements and regroup into operational and financial activities. This way we'll be able to analyze the company from an investor's perspective rather than from a creditor's perspective. By using this information, we will prepare a key figure analysis to help us analyze year-to-year data compared with their peers. Finally, we will end up with a conclusion given the results we've gotten.

#### **Analytical period**

When conducting an analysis of a company's financial statement, it's important that the data from the period that's chosen is an accurate representation of the company's current state. Due to Norwegians change in focus from growth to profitability recently we have chosen the period from 2014-2018. In this period Norwegian has grown substantially and might not be the best representation of how the company is going to perform in the future. Although this is the case, it gives us enough information on how they are suited to take on the new phase and if they have the financial muscle to pull it off. As we've established Norwegians future strategy in Chapter 2.0, we know that the company is planning to reduce investments and cut costs. We will therefore conduct the analysis with some assumptions in mind:

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<sup>92</sup> Kristoffersen T. (2014)

- Cost-cutting program Focus2019 introduced – from growth to sustainability/profitability
- Equity offering of 3 billion NOK in 2019 to strengthen balance sheet
- Delay of aircraft deliveries and assumptions of further delays
- One-time costs of fuel hedging and problems with aircrafts

### 3.2 Presentation of the historical financial statement

Table 1 shows the historical consolidated financial statement of Norwegian Air Shuttle ASA from the period of 2014 to 2018. The financial year being used is from 01.01 to 31.12.

(Numbers in mill NOK)

NORWEGIAN AIR SHUTTLE ASA	2014		2015		2016		2017		2018	
Passenger transport	kr	16 255	kr	18 506	kr	21 096	kr	24 719	kr	32 560
Ancillary revenue	kr	2 727	kr	3 275	kr	3 929	kr	4 823	kr	6 267
Other income	kr	558	kr	710	kr	1 030	kr	1 407	kr	1 439
<b>Total operating revenues</b>	<b>kr</b>	<b>19 540</b>	<b>kr</b>	<b>22 491</b>	<b>kr</b>	<b>26 055</b>	<b>kr</b>	<b>30 948</b>	<b>kr</b>	<b>40 266</b>
Sales and distribution expenses	kr	469	kr	612	kr	759	kr	946	kr	879
Aviation fuel	kr	6 321	kr	5 184	kr	5 053	kr	7 339	kr	12 562
Aircraft leases	kr	1 846	kr	2 213	kr	2 842	kr	3 890	kr	4 354
Airport charges	kr	2 724	kr	2 949	kr	3 304	kr	3 760	kr	4 373
Handling charges	kr	1 855	kr	2 337	kr	2 996	kr	3 685	kr	5 201
Technical maintenance expenses	kr	1 290	kr	1 717	kr	1 865	kr	2 707	kr	3 494
Other aircraft expenses	kr	855	kr	826	kr	1 206	kr	1 695	kr	2 102
Payroll and other personnel expenses	kr	3 209	kr	3 434	kr	3 971	kr	5 316	kr	6 665
Depreciation and amortization	kr	748	kr	1 133	kr	1 296	kr	2 061	kr	1 668
Other operating expenses	kr	1 050	kr	1 263	kr	1 519	kr	1 984	kr	1 826
Other losses/gains net	kr	584	kr	474	kr	-577	kr	-432	kr	994
<b>Total operating expenses</b>	<b>kr</b>	<b>20 951</b>	<b>kr</b>	<b>22 143</b>	<b>kr</b>	<b>24 234</b>	<b>kr</b>	<b>32 951</b>	<b>kr</b>	<b>44 116</b>
<b>Operating profit</b>	<b>kr</b>	<b>-1 411</b>	<b>kr</b>	<b>348</b>	<b>kr</b>	<b>1 820</b>	<b>kr</b>	<b>-2 002</b>	<b>kr</b>	<b>-3 851</b>
Interest income	kr	196	kr	74	kr	44	kr	71	kr	118
Interest expense	kr	-447	kr	-463	kr	-686	kr	-959	kr	-1 160
Other financial items	kr	-23	kr	13	kr	118	kr	35	kr	2 274
Share of profit from associated companies	kr	58	kr	103	kr	213	kr	292	kr	129
<b>Profit/loss before tax</b>	<b>kr</b>	<b>-1 627</b>	<b>kr</b>	<b>75</b>	<b>kr</b>	<b>1 508</b>	<b>kr</b>	<b>-2 562</b>	<b>kr</b>	<b>-2 490</b>
Income tax expense	kr	-557	kr	-171	kr	373	kr	-768	kr	-1 036
<b>Profit/loss for the year</b>	<b>kr</b>	<b>-1 070</b>	<b>kr</b>	<b>246</b>	<b>kr</b>	<b>1 135</b>	<b>kr</b>	<b>-1 794</b>	<b>kr</b>	<b>-1 454</b>

Table 1: Historical financial statement for Norwegian 2014-2018. Own creation.

From the Table 1, we can see that Norwegian has doubled their revenue from 2014 to 2018, but their costs have more than doubled. This resulted in negative profits in 2017 and 2018. Norwegian's main business is naturally ticket sales and with being a low-cost airline, ancillary revenue has not been a focus. With a shift from growth to sustainability Norwegian has a goal where total revenue will consist of 20% ancillary services.

Ancillary revenue consists of extra services the customer buys with the ticket, like luggage, food, beverages, seat reservations, etc. Other income consists of freight and cargo services.

Table 2 shows the historical consolidated balance sheet of Norwegian Air Shuttle ASA from the period of 2014 to 2018. The financial year being used is from 01.01 to 31.12. (numbers in mill NOK)

NORWEGIAN AIRSHUTTLE ASA	2014	2015	2016	2017	2018
<b>ASSETS</b>					
<b>Non-current assets</b>					
Intangible assets	kr 207	kr 207	kr 198	kr 201	kr 212
Deferred tax asset	kr 519	kr 594	kr 241	kr 1 019	kr 2 674
Buildings	kr 252	kr 286	kr 283	kr 279	kr 269
Aircraft, parts and installations on leased aircraft	kr 12 528	kr 18 508	kr 22 572	kr 25 862	kr 31 064
Equipment and fixtures	kr 84	kr 80	kr 88	kr 90	kr 211
Other receivables	kr 421	kr 502	kr 624	kr 790	kr 1 142
Derivative financial instrument	kr -	kr -	kr 114	kr 31	kr 4
Other financial assets	kr 102	kr 83	kr 83	kr 3	kr -
Investment in shares/associates	kr 224	kr 328	kr 609	kr 833	kr 70
Prepayment to aircraft manufacturers	kr 4 103	kr 5 939	kr 7 156	kr 5 219	kr 8 561
<b>Total non-current assets</b>	<b>kr 18 439</b>	<b>kr 26 525</b>	<b>kr 31 969</b>	<b>kr 34 328</b>	<b>kr 44 209</b>
<b>Current assets</b>					
Inventory	kr 83	kr 104	kr 102	kr 102	kr 167
Accounts receivable	kr 1 270	kr 1 457	kr 1 623	kr 2 467	kr 4 092
Other short-term receivables	kr 904	kr 1 093	kr 1 391	kr 1 890	kr 2 660
Financial assets available for sale	kr -	kr -	kr -	kr 80	kr 2 052
Derivative financial instrument	kr -	kr -	kr 353	kr 616	kr 33
Cash and cash equivalents	kr 2 011	kr 2 454	kr 2 324	kr 4 040	kr 1 922
Asset held for sale (reclassified from tangible assets)	kr -	kr -	kr -	kr -	kr 851
<b>Total current assets</b>	<b>kr 4 268</b>	<b>kr 5 109</b>	<b>kr 5 793</b>	<b>kr 9 195</b>	<b>kr 11 777</b>
<b>Total Assets</b>	<b>kr 22 706</b>	<b>kr 31 634</b>	<b>kr 37 763</b>	<b>kr 43 523</b>	<b>kr 55 985</b>

Table 2: Historical balance sheet for Norwegian 2014-2018 Assets. Own creation.

<b>EQUITY AND DEBT</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>Equity</b>					
Share capital	kr 4	kr 4	kr 4	kr 4	kr 5
Share premium reserve	kr 1 094	kr 1 232	kr 1 232	kr 1 232	kr 2 687
Other equity	kr 542	kr 971	kr 884	kr 769	kr 1 145
Retained earnings	kr 469	kr 760	kr 1 919	kr 82	kr -2 149
<i>Shareholders equity</i>	kr 2 108	kr 2 965	kr 4 038	kr 2 086	kr 1 687
Non-controlling interest	kr -	kr -	kr 11	kr 12	kr 17
<b>Total Equity</b>	<b>kr 2 108</b>	<b>kr 2 965</b>	<b>kr 4 049</b>	<b>kr 2 098</b>	<b>kr 1 705</b>
<b>Non-current liabilities</b>					
Pension liabilities	kr 202	kr 135	kr 107	kr 150	kr 147
Provision for periodic maintenance	kr 835	kr 1 178	kr 1 376	kr 2 679	kr 3 188
Other long term liabilities	kr -	kr 80	kr 85	kr 137	kr 145
Deferred tax	kr 170	kr -	kr -	kr -	kr 615
Derivative financial instrument	kr -	kr -	kr 28	kr -	kr 38
Borrowings	kr 9 950	kr 16 543	kr 18 706	kr 22 060	kr 22 530
Financial lease liability	kr 3	kr -	kr -	kr -	kr -
<i>Total non-current liabilities</i>	kr 11 161	kr 17 936	kr 20 303	kr 25 026	kr 26 662
<b>Short term liabilities</b>					
Accounts payable	kr 889	kr 781	kr 991	kr 1 755	kr 2 266
Air traffic settlement liabilities	kr 2 965	kr 4 014	kr 4 666	kr 6 494	kr 6 907
Tax Payable	kr 2	kr 32	kr 8	kr 50	kr 31
Public duties payable	kr 133	kr 123	kr 156	kr 224	kr 240
Short term part of borrowings	kr 3 330	kr 3 041	kr 4 769	kr 4 244	kr 11 309
Derivative financial instrument	kr 459	kr 783	kr 86	kr 42	kr 1 359
Other short term liabilities	kr 1 659	kr 1 959	kr 2 734	kr 3 589	kr 5 506
<i>Total short term liabilities</i>	kr 9 437	kr 10 733	kr 13 411	kr 16 398	kr 27 619
<b>Total liabilities</b>	<b>kr 20 598</b>	<b>kr 28 669</b>	<b>kr 33 714</b>	<b>kr 41 424</b>	<b>kr 54 281</b>
<b>Total equity and liabilities</b>	<b>kr 22 706</b>	<b>kr 31 634</b>	<b>kr 37 763</b>	<b>kr 43 523</b>	<b>kr 55 985</b>

Table 3: Historical balance sheet for Norwegian 2014-2018 Equity and debt. Own creation.

From looking at the balance sheet from 2014-2018 one can see that most of their assets are related to their fleet. Almost 90% of total non-current assets were either aircrafts or pre-payments related to future deliveries. Total assets have more than doubled together with revenue as we previously saw. Most of their assets are being funded through long time borrowings together with bond issues. Therefore, their D/E is high, and the company is per 2018 geared 32x the equity excluding capitalized operating leases. The D/E has increased throughout the years as debt has increased with aircraft deliveries and equity has decreased as a result of negative retained earnings.

### 3.3 Re-grouping the financial statement for analysis purposes

The financial statement is being presented from a credit-oriented perspective as to how the company is suited to pay their obligations and having enough liquid assets to handle difficult times. When conducting an analysis from an investor's perspective, we're interested in the long-term perspective and the company's ability to create value. Therefore, it's necessary to re-group the financial statement.

To be able to analyze the company's ability to create long-term value, we must customize the financial statement by separating between operational activities and financial activities.

According to Gjesdal one must follow 4 steps when re-grouping a financial statement:<sup>93</sup>

1. Separate operational activities and financial activities
2. Separate interest-bearing debt and non-interest-bearing debt
3. Separate usual and unusual accounting records
4. Adjust for "dirty surplus"

In table 4 down below it shows the revised financial statement for Norwegian in the period that's being analyzed.

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<sup>93</sup> Gjesdal, Ø. (2007)

<b>NORWEGIAN AIR SHUTTLE ASA</b>	<b>2014</b>		<b>2015</b>		<b>2016</b>		<b>2017</b>		<b>2018</b>	
Passenger transport	kr	16 255	kr	18 506	kr	21 096	kr	24 719	kr	32 560
Ancillary revenue	kr	2 727	kr	3 275	kr	3 929	kr	4 823	kr	6 267
Other income	kr	558	kr	710	kr	1 030	kr	1 407	kr	1 439
<b>Total operating revenues</b>	<b>kr</b>	<b>19 540</b>	<b>kr</b>	<b>22 491</b>	<b>kr</b>	<b>26 055</b>	<b>kr</b>	<b>30 948</b>	<b>kr</b>	<b>40 266</b>
Sales and distribution expenses	kr	469	kr	612	kr	759	kr	946	kr	879
Aviation fuel	kr	6 321	kr	5 184	kr	5 053	kr	7 339	kr	12 562
Airport charges	kr	2 724	kr	2 949	kr	3 304	kr	3 760	kr	4 373
Handling charges	kr	1 855	kr	2 337	kr	2 996	kr	3 685	kr	5 201
Technical maintenance expenses	kr	1 290	kr	1 717	kr	1 865	kr	2 707	kr	3 494
Other aircraft expenses	kr	855	kr	826	kr	1 206	kr	1 695	kr	2 102
Payroll and other personnel expenses	kr	2 996	kr	3 203	kr	3 759	kr	5 071	kr	6 346
Other operating expenses	kr	1 050	kr	1 263	kr	1 519	kr	1 984	kr	1 826
Other losses/gains net	kr	584	kr	474	kr	-577	kr	-432	kr	994
Total operating expenses	kr	18 143	kr	18 567	kr	19 884	kr	26 755	kr	37 776
<b>EBITDAR</b>	<b>kr</b>	<b>1 397</b>	<b>kr</b>	<b>3 925</b>	<b>kr</b>	<b>6 170</b>	<b>kr</b>	<b>4 194</b>	<b>kr</b>	<b>2 490</b>
Aircraft leases	kr	1 199	kr	727	kr	1 537	kr	2 566	kr	2 978
<b>EBITDA</b>	<b>kr</b>	<b>198</b>	<b>kr</b>	<b>3 198</b>	<b>kr</b>	<b>4 633</b>	<b>kr</b>	<b>1 628</b>	<b>kr</b>	<b>-488</b>
Depreciation and amortization	kr	748	kr	1 133	kr	1 296	kr	2 061	kr	1 668
<b>EBIT</b>	<b>kr</b>	<b>-550</b>	<b>kr</b>	<b>2 064</b>	<b>kr</b>	<b>3 338</b>	<b>kr</b>	<b>-433</b>	<b>kr</b>	<b>-2 156</b>
Interest income	kr	196	kr	74	kr	44	kr	71	kr	118
Interest expense	kr	-447	kr	-463	kr	-686	kr	-959	kr	-1 160
Other financial items	kr	-23	kr	13	kr	118	kr	35	kr	345
Share of profit from associated companies	kr	58	kr	103	kr	213	kr	292	kr	129
Implied interest rate on leasing obligations	kr	-647	kr	-1 486	kr	-1 305	kr	-1 324	kr	-1 376
Net pension costs	kr	-213	kr	-230	kr	-212	kr	-245	kr	-319
<b>Profit/loss before tax</b>	<b>kr</b>	<b>-1 627</b>	<b>kr</b>	<b>75</b>	<b>kr</b>	<b>1 509</b>	<b>kr</b>	<b>-2 562</b>	<b>kr</b>	<b>-4 419</b>
Income tax expense	kr	-557	kr	-171	kr	373	kr	-768	kr	-1 036
<b>Profit/loss for the year</b>	<b>kr</b>	<b>-1 070</b>	<b>kr</b>	<b>246</b>	<b>kr</b>	<b>1 135</b>	<b>kr</b>	<b>-1 794</b>	<b>kr</b>	<b>-3 383</b>

Table 4: Reclassified income statement for 2014-2018. Own creation.

As we see from Table 4, there haven't been huge changes to the statement. The two changes that's been made is the regrouping of leasing costs and pension costs. The pension costs related to "Payroll and other personnel expenses" has been extracted from the total sum and removed from operational costs to financial costs. This is due to the fact that these costs are related to returns on pension and future estimates of payouts and are considered a financial cost. We therefore see a reduction in operational costs and an equivalent increase in financial cost.

The second accounting record we've moved is the leasing costs related to aircraft financing. This is because airlines usually fund their operation by leasing aircrafts instead of owning them. It is therefore considered a way of financing and we've removed an implied calculated interest rate from the leasing costs and moved it to the financing records. The remaining costs are treated as depreciations. Capitalized operational leases will be accounted for in Section 3.4.2.

Leasing of machines or other assets has not been taken into consideration when reclassifying leasing costs as its effect on the cost is non-significant.

We will use the reclassified statement to calculate ratios. When conducting the DCF-analysis, we will include pension cost in our forecast of EBIT as shown in Table 5.

<b>EBITDAR incl. Pension</b>	kr	<b>1 184</b>	kr	<b>3 694</b>	kr	<b>5 958</b>	kr	<b>3 948</b>	kr	<b>2 171</b>
Aircraft leases	kr	1 199	kr	727	kr	1 537	kr	2 566	kr	2 978
<b>EBITDA</b>	kr	<b>-15</b>	kr	<b>2 967</b>	kr	<b>4 421</b>	kr	<b>1 382</b>	kr	<b>-807</b>
Depreciation and amortization	kr	748	kr	1 133	kr	1 296	kr	2 061	kr	1 668
<b>EBIT</b>	kr	<b>-764</b>	kr	<b>1 834</b>	kr	<b>3 125</b>	kr	<b>-679</b>	kr	<b>-2 475</b>

Table 5: Reclassified EBIT incl. pension costs. Own creation.

### 3.4 Classifying statement activities and assets

#### 3.4.1 Operational and financial activities

Norwegian reports their financial statement according to the International Financial Reporting Standards (IFRS) as previously mentioned. As you can see from the statements above, they report the balance sheet by separating non-current and current assets along with non-current and current liabilities. Due to IFRS' framework where the assets are grouped by how liquid they are and debt by maturity date, it's easy for their creditors to get an overview over how the company is suited to pay their future debt payment obligations.

As we want to look at it from an investor's perspective and how suited the company is to take advantage of future growth and return, we must reclassify the balance sheet before analyzing.

According to Koller et al assets related to operations are machines, equipment's, building and receivables and assets related to financial activities are securities, prepaid pension, non-consolidated daughter companies and other long-term investments not related to the business' operations. <sup>94</sup>

In the section under we will go through the different activities that will be reclassified and why:

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<sup>94</sup> Koller et al (2009)

### 3.4.2 Capitalizing of operational leasing cost

Operational leasing is the biggest accounting records that must be dealt with when re-classifying the financial statement. In the aviation industry operational leasing is widely used and a way of financing the ongoing business – mainly aircrafts. The leasing costs doesn't show up in the balance sheet and is a way to hide real debt (as leasing is an obligation to pay). This then leads to “hidden gearing”.<sup>95</sup> Leasing involves limited risk for the aviation company as the leasing company does all the write-offs/depreciations and owns the plane at the end of the leasing period. The leasing company's capital costs includes interest payments and depreciation costs, where the interest cost is related to owning the asset and the depreciations are related to the operation. The option to lease reduces the need to lock up capital and if Norwegian were to own the aircrafts, they would have to either get the funding by shareholders or incur new debt. Therefore, we choose to reclassify the costs related to interest expenses out of the costs related to operations and add it to the financing costs supported by Damodaran.<sup>96</sup> We also calculate the NPV of the leasing obligations and add it to the balance as an operational asset and liability. This will increase the total capital and have a noticeable effect on our valuation models, thereof future cash flows, WACC and Enterprise Value (EV).

When calculating the NPV of leasing obligations we need to calculate future leasing payments and discount them accordingly with the respective cost of debt and year, which we calculated to be 4.19% in Section 4.5 Interest Rates. We looked at two different ways to calculate future payments. As the leasing obligations can change quite a bit, we've chosen to divide future leasing obligations over payments in the future assuming that no extra leasing obligations will be taken on apart from what has been guided.

We chose to look at two methods which we will go through below. Even though leasing obligations throughout the years has changed for Norwegian we assume these to remain constant. Therefore, we chose the leasing obligations from 2018 as our base:

(All numbers in mill NOK)

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<sup>95</sup> Kaldestad, Y & Moller, B. (2016)

<sup>96</sup> Damodaran, A. (1999)

Length of leasing	Nominal value	
Within 1 year	kr	5 036
Between 1 and 5 years	kr	17 657
After 5 years	kr	16 912
Sum	kr	39 605

Table 6: Operational leasing agreements related to aircrafts for Norwegian per 31.12.2018. Own creation.

### Method 1

The first method we looked at was to estimate average leasing cost per aircraft for each year from 2014-2018. As one can see from the table below, we chose to divide total leasing cost found from the income statement in the period 2014-2018 for Norwegian and divide these costs on the total aircrafts Norwegian had a leasing contract on, as shown in the table 7:

Leasing	2014	2015	2016	2017	2018	Average
Leasing contracts	49	45	49	78	87	62
Leasing cost per year	1 846	2 213	2 842	3 890	4 354	3 029
Leasing cost per aircraft	38	49	58	50	50	49

Table 7: Historical leasing contracts and cost. Own creation.

We then used the average cost per plane and multiplied it with future deliveries. Given the assumption of no further leasing contracts than guided, we arrived at the result below which shows payments over a period of 11 years, with the debt being a little higher in the last year.

Year	Operational leasingcosts	NPV	Rental expense	Reduction in leasing debt/depreciation	Leasing debt
2018	kr 4 354				kr 31 348
2019	kr 4 367	kr 4 192	kr 1 313	kr 3 054	kr 28 294
2020	kr 3 975	kr 3 661	kr 1 186	kr 2 789	kr 25 505
2021	kr 3 386	kr 2 994	kr 1 069	kr 2 317	kr 23 188
2022	kr 3 386	kr 2 873	kr 972	kr 2 414	kr 20 773
2023	kr 3 386	kr 2 758	kr 870	kr 2 515	kr 18 258
2024	kr 3 386	kr 2 647	kr 765	kr 2 621	kr 15 637
2025	kr 3 386	kr 2 540	kr 655	kr 2 731	kr 12 906
2026	kr 3 386	kr 2 438	kr 541	kr 2 845	kr 10 061
2027	kr 3 386	kr 2 340	kr 422	kr 2 964	kr 7 097
2028	kr 3 386	kr 2 246	kr 297	kr 3 088	kr 4 009
2029	kr 4 177	kr 2 659	kr 168	kr 4 009	kr -
Sum	kr 39 605	kr 31 348	kr 8 257	kr 31 348	

Table 8: Capitalized operating leases reclassification method 1. Own creation.

## Method 2

The second method we chose to look at was to divide the future obligations according to when they matured. We chose a payment period over 8 years as that's also the same amount of years airlines usually amortizes their aircraft fleet. "Within 1 year" paid in 2019, "Between 1 and 5 years" paid from 2020-2023 and "After 5 years" split between the final 3 years in 2024-2026.

Year	Operational leasingcosts	NPV	Rental expense	Reduction in leasing debt/depreciation	Leasing debt
2018	kr 4 354				kr 32 840
2019	kr 5 036	kr 4 833	kr 1 376	kr 3 660	kr 29 180
2020	kr 4 414	kr 4 066	kr 1 223	kr 3 192	kr 25 989
2021	kr 4 414	kr 3 903	kr 1 089	kr 3 325	kr 22 663
2022	kr 4 414	kr 3 746	kr 950	kr 3 465	kr 19 199
2023	kr 4 414	kr 3 595	kr 804	kr 3 610	kr 15 589
2024	kr 5 637	kr 4 407	kr 653	kr 4 984	kr 10 604
2025	kr 5 637	kr 4 230	kr 444	kr 5 193	kr 5 411
2026	kr 5 637	kr 4 060	kr 227	kr 5 411	kr -
<b>Sum</b>	<b>kr 39 605</b>	<b>kr 32 840</b>	<b>kr 6 766</b>	<b>kr 32 839</b>	

Table 9: Capitalized operating leases reclassification method 2. Own creation.

## Choice of method

As we don't know the size of each leasing contract and that Norwegian announced postponement of deliveries in the annual report, we've chosen to combine both methods. This is due to the fact that we choose to write-off the fleet with an average asset life of 8 years as suggested by Damodaran<sup>97</sup>, and that there's a lot of uncertainty to future payments either way. NPV of leasing obligations will remain the same, but we choose to include future cancellations that's been announced by Norwegian in 2018 and reduced the last 3 years respectively. NPV of future leasing obligations will therefore be lower than what's been calculated in method 2 from 2019 as we find it reasonable to include announced delay on aircrafts. NPV of 2018 leasing obligations will remain the same as shown in Table 10.

Year	Operational leasingcosts	NPV	Rental expense	Reduction in leasing debt/depreciation	Leasing debt
2019	kr 5 036	kr 4 833	kr 1 171	kr 3 864	kr 24 095
2020	kr 4 414	kr 4 066	kr 1 010	kr 3 405	kr 20 690
2021	kr 4 414	kr 3 903	kr 867	kr 3 547	kr 17 143
2022	kr 4 414	kr 3 746	kr 718	kr 3 696	kr 13 447
2023	kr 4 414	kr 3 595	kr 563	kr 3 851	kr 9 596
2024	kr 3 470	kr 2 713	kr 402	kr 3 068	kr 6 528
2025	kr 3 470	kr 2 604	kr 274	kr 3 197	kr 3 331
2026	kr 3 470	kr 2 499	kr 140	kr 3 331	kr 0

Table 10: Capitalized operating leases reclassification chosen method. Own creation.

<sup>97</sup> Damodaran 2012: p. 214-215

The reclassifying of the operational leasing to financial leasing will affect invested capital and NOPLAT. We see that the invested capital increases with the NPV of the leasing obligations and NOPLAT is being reduced because of the interest rate being withdrawn from the NOPLAT and reclassified as a financial record.

Discount period	2014		2015		2016		2017		2018	
Years	Leasing obligations	NPV of leasing								
1	kr 2 548	kr 2 446	kr 3 172	kr 3 045	kr 3 072	kr 2 948	kr 4 551	kr 4 368	kr 5 036	kr 4 833
2	kr 2 201	kr 2 027	kr 5 047	kr 4 649	kr 4 616	kr 4 252	kr 4 117	kr 3 793	kr 4 414	kr 4 066
3	kr 2 201	kr 1 946	kr 5 047	kr 4 462	kr 4 616	kr 4 081	kr 4 117	kr 3 640	kr 4 414	kr 3 903
4	kr 2 201	kr 1 868	kr 5 047	kr 4 283	kr 4 616	kr 3 917	kr 4 117	kr 3 494	kr 4 414	kr 3 746
5	kr 2 201	kr 1 792	kr 5 047	kr 4 110	kr 4 616	kr 3 760	kr 4 117	kr 3 353	kr 4 414	kr 3 595
6	kr 2 380	kr 1 861	kr 6 627	kr 5 181	kr 5 407	kr 4 227	kr 5 747	kr 4 492	kr 5 637	kr 4 407
7	kr 2 380	kr 1 786	kr 6 627	kr 4 972	kr 5 407	kr 4 057	kr 5 747	kr 4 312	kr 5 637	kr 4 230
8	kr 2 380	kr 1 714	kr 6 627	kr 4 772	kr 5 407	kr 3 894	kr 5 747	kr 4 138	kr 5 637	kr 4 060

Table 11: NPV of yearly future leasing obligations. Own creation.

Reclassifying leasing	2014		2015		2016		2017		2018	
Leasing obligations	kr 18 491	kr 43 242	kr 37 757	kr 38 259	kr 39 605					
<b>NPV</b>	<b>kr 15 439</b>	<b>kr 35 475</b>	<b>kr 31 135</b>	<b>kr 31 590</b>	<b>kr 32 840</b>					

Table 12: Total NPV of leasing obligations. Own creation.

### 3.5 Other reclassifications of assets

#### 3.5.1 Operational assets and debt

*Intangible assets* consist mainly of software and goodwill. The software includes Norwegians payment system and goodwill is from acquisition of Fly Nordic Sweden and the purchase of slots at London Gatwick airport in 2017. We classify this post as operational, due to it being closely related to the ongoing business.

*Cash and cash equivalents* are bank deposits or other saleable instruments. According to Koller et al only a small part of this is necessary for operational activities. Koller et al recommends using 2% of income as operational liquidity. We choose to follow this recommendation and re-classify accordingly.<sup>98</sup>

<sup>98</sup> Koller et al. 2010: p. 181

*Other receivables* are trade receivables that mature in over a year. We choose to classify the post as an operational activity.

*Provision for periodic maintenance* will be classified as an operational liability as it's payment for maintenance on leased aircrafts.

### 3.5.2 Financial assets and debt

*Investment in shares/associates* is mainly their share in Bank Norwegian. A small part is the JV (Joint Venture) with OSM Aviation in Cyprus. From 2018 they classified these investments differently in operational and financial, but we're going to move the whole post to financial activities as the JV is only a small part.

*Deferred tax asset* should be classified as a non-operational asset according to Koller et al.<sup>99</sup> As Norwegian has had negative results in the past couple of years, this record has increased and can be considered to be a financial benefit. We choose to follow Koller's recommendation and classify it as a financial asset.

*Interest-bearing debt* will be classified as a financial asset, while *non-interest-bearing debt* like air traffic settlement liabilities will be classified as operational.

*Asset held for sale* was the sale of two aircrafts that increased liquidity of 26M USD after repayment of debt.<sup>100</sup> We choose to classify this post as a financial asset and put it under *other financial assets*.

The re-grouped balance sheet for Norwegian in the period 2014-2018 looks like this:

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<sup>99</sup> Koller et al 2015: p.183

<sup>100</sup> Norwegian Annual Report 2018

NORWEGIAN AIR SHUTTLE ASA	2014	2015	2016	2017	2018
<b>ASSETS</b>					
<b>Operational non-current assets</b>					
Intangible assets	kr 207	kr 207	kr 198	kr 201	kr 212
Buildings	kr 252	kr 286	kr 283	kr 279	kr 269
Aircraft, parts and installations on leased aircraft	kr 12 528	kr 18 508	kr 22 572	kr 25 862	kr 31 064
Equipment and fixtures	kr 84	kr 80	kr 88	kr 90	kr 211
Other receivables	kr 421	kr 502	kr 624	kr 790	kr 1 142
Prepayment to aircraft manufacturers	kr 4 103	kr 5 939	kr 7 156	kr 5 219	kr 8 561
Operational leasing	kr 15 439	kr 35 475	kr 31 135	kr 31 590	kr 32 840
<b>Total operational non-current assets</b>	<b>kr 33 033</b>	<b>kr 60 995</b>	<b>kr 62 057</b>	<b>kr 64 032</b>	<b>kr 74 301</b>
<b>Operational current assets</b>					
Inventory	kr 83	kr 104	kr 102	kr 102	kr 167
Accounts receivable and other receivables	kr 2 174	kr 2 551	kr 3 014	kr 4 358	kr 6 753
Cash and cash equivalents for operations	kr 391	kr 450	kr 521	kr 619	kr 805
<b>Total operational current assets</b>	<b>kr 2 647</b>	<b>kr 3 105</b>	<b>kr 3 638</b>	<b>kr 5 078</b>	<b>kr 7 725</b>
<b>Total operational assets</b>	<b>kr 35 680</b>	<b>kr 64 100</b>	<b>kr 65 694</b>	<b>kr 69 111</b>	<b>kr 82 026</b>
<b>Financial assets</b>					
Deferred tax asset	kr 519	kr 594	kr 241	kr 1 019	kr 2 674
Derivative financial instrument	kr -	kr -	kr 468	kr 647	kr 36
Cash and cash equivalents	kr 1 620	kr 2 004	kr 1 803	kr 3 421	kr 1 116
Investment in shares/associates	kr 224	kr 328	kr 609	kr 913	kr 2 122
Other financial assets	kr 102	kr 83	kr 83	kr 3	kr 851
<b>Total financial assets</b>	<b>kr 2 465</b>	<b>kr 3 009</b>	<b>kr 3 204</b>	<b>kr 6 002</b>	<b>kr 6 799</b>
<b>Total assets</b>	<b>kr 38 145</b>	<b>kr 67 109</b>	<b>kr 68 898</b>	<b>kr 75 112</b>	<b>kr 88 825</b>

Table 13: Historical reclassified balance sheet 2014-2018. Assets. Own creation.

EQUITY AND DEBT	2014	2015	2016	2017	2018
<b>Operational liabilities</b>					
Accounts payable	kr 889	kr 781	kr 991	kr 1 755	kr 2 266
Provision for periodic maintenance	kr 835	kr 1 178	kr 1 376	kr 2 679	kr 3 188
Tax Payable	kr 2	kr 32	kr 8	kr 50	kr 31
Public duties payable	kr 133	kr 123	kr 156	kr 224	kr 240
Air traffic settlement liabilities	kr 2 965	kr 4 014	kr 4 666	kr 6 494	kr 6 907
Other short term liabilities	kr 1 659	kr 1 959	kr 2 734	kr 3 589	kr 5 506
<b>Total operational liabilities</b>	<b>kr 6 484</b>	<b>kr 8 087</b>	<b>kr 9 932</b>	<b>kr 14 791</b>	<b>kr 18 138</b>
<b>Non-current financial liabilities</b>					
Pension liabilities	kr 202	kr 135	kr 107	kr 150	kr 147
Deferred tax liabilities	kr 170	kr -	kr -	kr -	kr 615
Borrowings	kr 9 950	kr 16 543	kr 18 706	kr 22 060	kr 22 530
Operational leasing	kr 15 439	kr 35 475	kr 31 135	kr 31 590	kr 32 840
Other long term liabilities	kr 3	kr 80	kr 85	kr 137	kr 145
Derivative financial instrument	kr -	kr -	kr 28	kr -	kr 38
<b>Total non-current financial liabilities</b>	<b>kr 25 764</b>	<b>kr 52 233</b>	<b>kr 50 062</b>	<b>kr 53 937</b>	<b>kr 56 314</b>
<b>Current financial liabilities</b>					
Short term part of borrowings	kr 3 330	kr 3 041	kr 4 769	kr 4 244	kr 11 309
Derivative financial instrument	kr 459	kr 783	kr 86	kr 42	kr 1 359
<b>Total current financial liabilities</b>	<b>kr 3 789</b>	<b>kr 3 824</b>	<b>kr 4 855</b>	<b>kr 4 286</b>	<b>kr 12 669</b>
<b>Total financial liabilities</b>	<b>kr 29 553</b>	<b>kr 56 057</b>	<b>kr 54 917</b>	<b>kr 58 223</b>	<b>kr 68 982</b>
<b>Equity</b>					
Share capital	kr 4	kr 4	kr 4	kr 4	kr 5
Share premium reserve	kr 1 094	kr 1 232	kr 1 232	kr 1 232	kr 2 687
Other equity	kr 542	kr 971	kr 884	kr 769	kr 1 145
Retained earnings	kr 469	kr 760	kr 1 919	kr 82	kr -2 149
<b>Shareholders equity</b>	<b>kr 2 108</b>	<b>kr 2 965</b>	<b>kr 4 038</b>	<b>kr 2 086</b>	<b>kr 1 687</b>
Non-controlling interest	kr -	kr -	kr 11	kr 12	kr 17
<b>Total Equity</b>	<b>kr 2 108</b>	<b>kr 2 965</b>	<b>kr 4 049</b>	<b>kr 2 098</b>	<b>kr 1 705</b>
<b>Total Equity and Liabilities</b>	<b>kr 38 145</b>	<b>kr 67 109</b>	<b>kr 68 898</b>	<b>kr 75 112</b>	<b>kr 88 825</b>

Table 14: Historical reclassified balance sheet 2014-2018. Equity and Debt. Own creation.

### 3.5.3 Separating unusual and usual accounting records

According to Gjesdal it's important to separate between the usual and the unusual activities in the business.<sup>101</sup> Some businesses have one-time costs related to other events that isn't a part of its normal business. If we want to predict future results, it's important that one-time costs are being held outside and that we only evaluate the result from the usual operations. We've identified following unusual accounting records:

- Net gain from discontinuation of Bank Norwegian (NOFI) investment of 1940 Million NOK
- Loss/gains on intangible assets has been taken into account (other gains/losses)
- One-time cost of 500 Million NOK from grounding of 737 MAX has been taken into account of forecast.<sup>102</sup>

### 3.5.4 Adjusting for "dirty surplus"

In Norwegians case a "dirty surplus" will be reported as "other comprehensive income" in the yearly reports. If there's cost related to equity offerings, financial assets for sale or other currency transactions, it will show as other comprehensive income. Norwegian did go through with a private placement in 2018 and we will therefore adjust accordingly. Other than that, we do not adjust for currency transactions as we expect currency effects to even out over time.

## 3.6 Normalized and adjusted EBIT and NOPLAT

NOPLAT is the net operating profit less adjusted taxes. It is the profit that's produced from the company's core business after taxes.<sup>103</sup> Gjesdal recommends separating taxes in categories of operational taxes and financial taxes to be able to calculate taxes related to the core business. According to Gjesdal this can be quite challenging as there are different tax rules for

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<sup>101</sup> Gjesdal, Ø. 2007

<sup>102</sup> Norwegian Air Shuttle. 1Q19

<sup>103</sup> Koller et al. 2010: *p.108*

operational profits and financial returns and can leave us with a tax percentage that deviates from normal tax percentages.<sup>104</sup>

We assume that tax rates on the financial returns are 27% from 2014-2016. In 2017 taxes was 29,76% and in 2018 the rates were 30,59%.<sup>105</sup> From this we can estimate the financial taxes from the total taxes and find out how much the operational tax is and what Norwegians NOPLAT will be. By dividing the operational tax on operating profit, we can find the tax percentage that we need to calculate NOPLAT.

Normalized and adjusted EBIT (in mill NOK)										
NORWEGIAN AIR SHUTTLE ASA	2014		2015		2016		2017		2018	
Total tax on profit/loss	kr	-557	kr	-171	kr	373	kr	-768	kr	-1 036
Tax on financial records	kr	-58	kr	-74	kr	-84	kr	-161	kr	405
Operational tax	kr	-499	kr	-97	kr	458	kr	-607	kr	-1 441
EBIT from financial statement	kr	-1 411	kr	348	kr	1 820	kr	-2 002	kr	-3 851
Operational tax percentage		35 %		-28 %		25 %		30 %		37 %

Table 15: Normalized and adjusted EBIT. Own creation.

Average operational tax percentage is 32.06% (excluding 2015 as the percentage is negative).

We then use this percentage to calculate NOPLAT from the re-grouped financial statement:

Noplat (in mill NOK)										
NORWEGIAN AIR SHUTTLE ASA	2014		2015		2016		2017		2018	
Operating profit from reclassified statement	kr	-550	kr	2 064	kr	3 338	kr	-433	kr	-2 156
Average operational tax percentage		32,06 %		32,06 %		32,06 %		32,06 %		32,06 %
Calculated tax	kr	-176	kr	662	kr	1 070	kr	-139	kr	-691
<b>NOPLAT</b>	<b>kr</b>	<b>-374</b>	<b>kr</b>	<b>1 402</b>	<b>kr</b>	<b>2 268</b>	<b>kr</b>	<b>-294</b>	<b>kr</b>	<b>-1 465</b>

Table 16: NOPLAT estimations. Own creation.

These reclassifications give us a more correct picture of Norwegian's financial statements. Leasing obligations influence both assets and debt and will make a difference when comparing their balance sheet to others by calculating liquidity and solvency ratios. The adjusted EBIT found in section 3.2 Table 5 will be used in our DCF model where leasing costs and unusual income/expenses has been excluded. The reclassifications will increase total capital and will influence the DCF and WACC.

<sup>104</sup> Gjesdal, Ø. 2007: p.13

<sup>105</sup> Statsbudsjettet 2018

In the next section we'll use these adjustments to calculate key figures on profitability, liquidity and solvency risk.

### 3.7 Profitability Analysis

In order to forecast the future financial numbers for NAS, we have to take a closer look at the competition. We therefore need to do an in-depth analysis of NAS' historical performance compared to their peers. We will look at Norwegian's development in profitability, liquidity, solvency and their financial state over time. We will do that by looking at Norwegians statement and compare them to their peers as we go.

The analysis will consist of:

1. Analysis of the profit margin and EBIT margin
2. Return on invested capital (ROIC)
3. Liquidity risk
4. Solvency risk

These analyses and calculations should give us a thorough picture of NAS' historical performance. Together with strategy decisions, it should give us good clues to as where NAS is headed in the future – financially and strategically.

#### Assumptions and considerations

Even though NAS' peers have different tax-percentages because of the different origins, we choose to compare both adjusted EBIT margins and profit margins.

#### 3.7.1 Profit margin

According to Plenborg et al the profit margin expresses the revenue and expense relation and is an important measure for understanding profitability of a company.<sup>106</sup> We have chosen to compare Norwegians profit margin with the same companies as mentioned previously. EasyJet, Wizz Air and Ryanair are all low-cost airlines (LCC's) and SAS is a full cost carrier

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<sup>106</sup> Plenborg, T et al 2012: p.107

(FCC). Even though SAS operates in a different segment, they are still Norwegian’s main competitor as their business is heavily concentrated in Scandinavia.

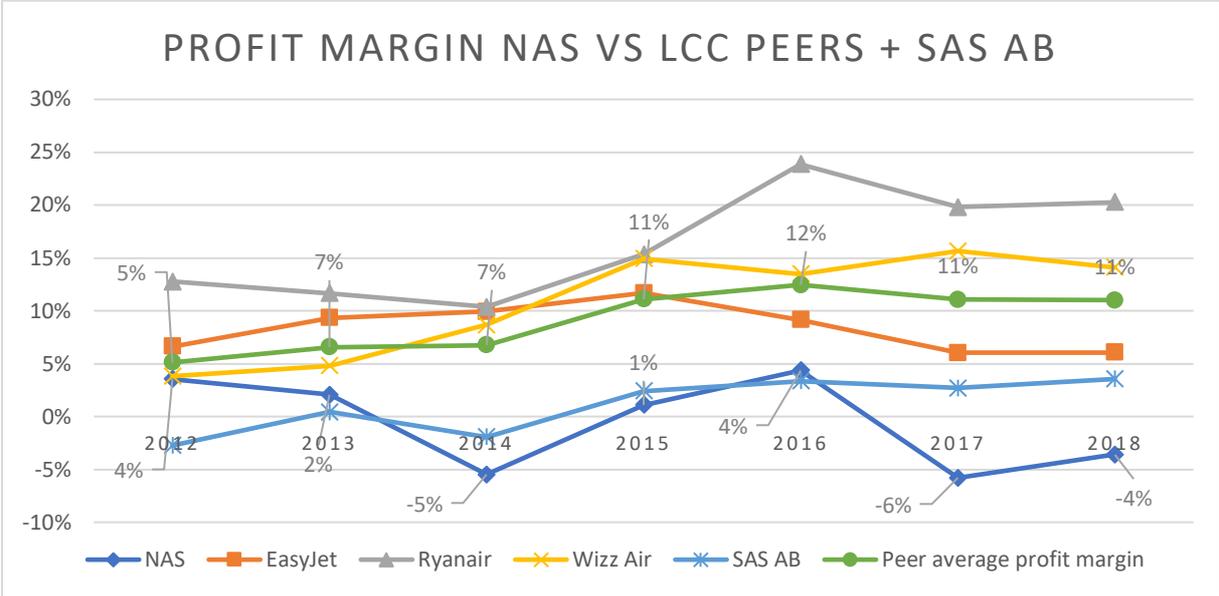


Figure 17: Profit Margin NAS VS LCC Peers + SAS AB. Own creation.

From Figure 17 we can see that Norwegian has throughout the period from 2012-2018 been clearly less profitable than its peers on average (9% vs -1%). What is interesting to see is that the company closest to Norwegian is SAS, who operates in the same countries as Norwegian. If Norwegian succeeds in their cost-cutting plans and is able to reach the average profit margin of its LCC peers, there can be quite the upside.

3.7.2 Adjusted EBIT margin

Comparing the companies by using EBIT, tells us a bit more about how much the companies are profiting based on the operations. As the companies have different tax percentages, it also rules out any benefit/disadvantage from this. The numbers are adjusted for leasing obligations and depreciations.

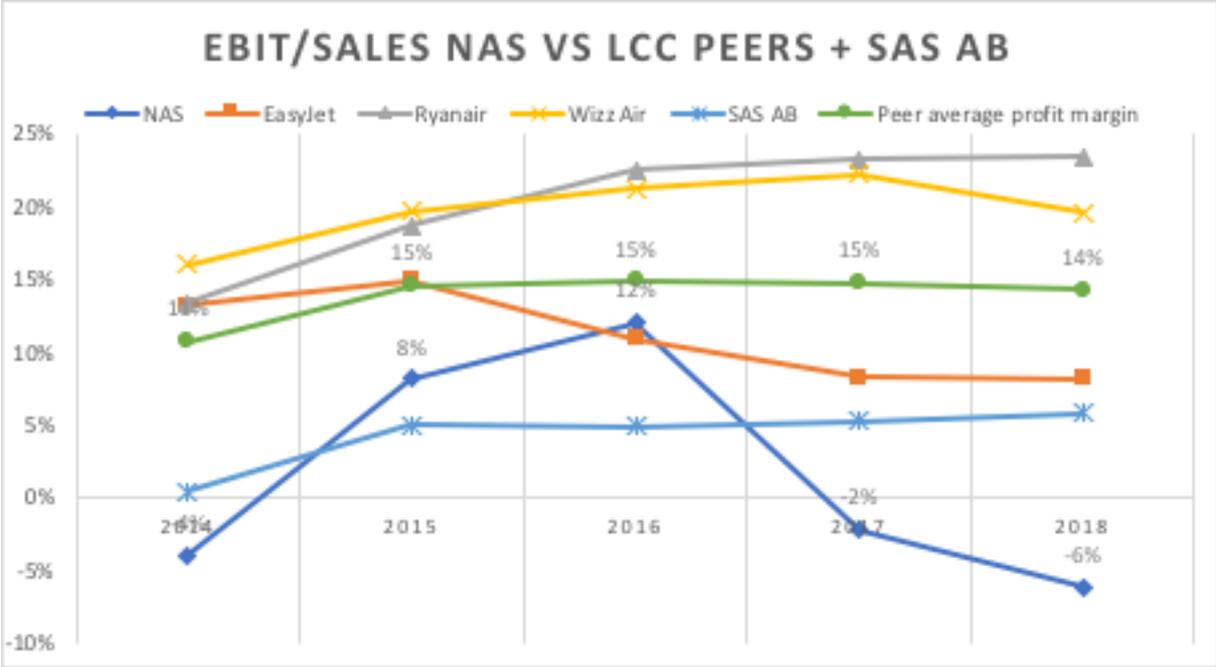


Figure 18: Adjusted EBIT Margin NAS VS LCC Peers + SAS AB. Own creation.

This graph tells us that Norwegian had increasing earnings in 2014-2016. This is also reflected in the share price as we mentioned in section 1.1 and can see from Figure 1. After 2016 the development has been negative, leading to a lower share price and private placements. In the same 5-year period all of Norwegians peers has had increasing earnings. We also clearly see the effects of Norwegians gains from NOFI sales/discontinuation method as Norwegian had a lower EBIT compared to profit margins seen in Figure 17 (-6% vs -4%). Although this is the case, we have to keep in mind that Norwegian did have losses on future contracts related to fuel and currency hedges as well. Still, this draws a negative picture of Norwegians recent operations and actions must be made.

3.7.3 Return on invested capital (ROIC)

Return on invested capital measures the return on the capital invested in operations and is the overall measure of profitability. This measure is important due to the fact that all else equal, a higher ROIC would lead to a higher estimated value for the company. It will also play a role in acquiring financing as the higher the ROIC, the more attractive it is to provide loans to the company for a cheaper price.<sup>107</sup>

When calculating the ROIC there might occur circumstances where it will be skewed. In NAS' yearly reports there isn't any mentionable changes or information that'll skew the ROIC, so the analysis will be conducted as per usual.

$$ROIC = \frac{NOPAT}{Invested\ Capital}$$

Where

*NOPAT = Net Operating Profit After Tax*

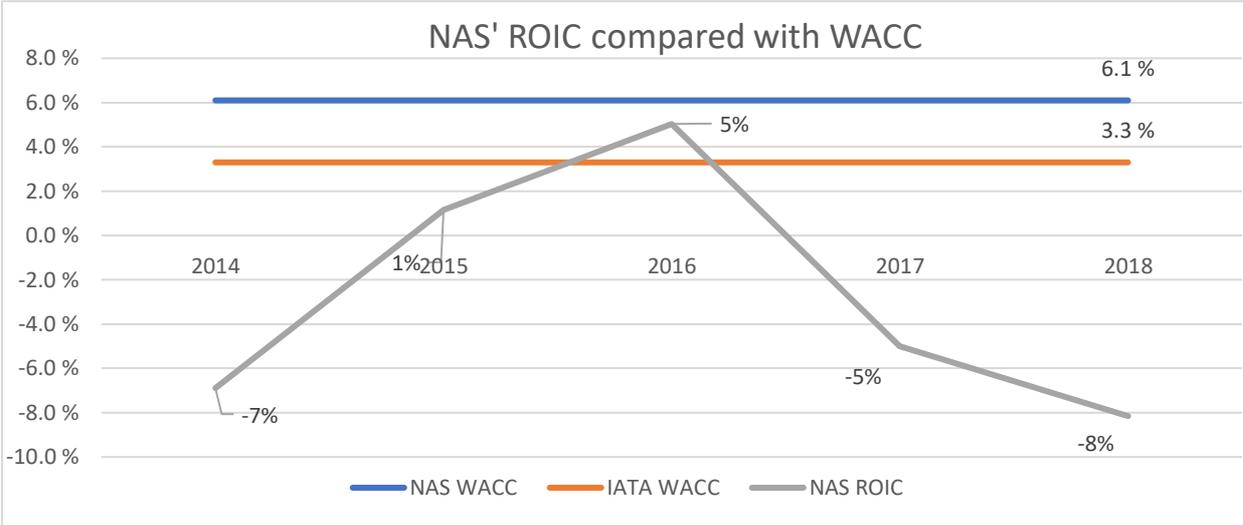


Figure 19: NAS ROIC Compared with its WACC and Industry WACC.<sup>108</sup> Own creation.

We found NAS' WACC to be 3.3% (see section 5.1) and IATA operates with an industry WACC of 6.1%.<sup>108</sup> From the graph we can see that NAS had a positive ROIC in 2015 and 2016, but only had an ROIC higher than its WACC in 2016 (given they had the same WACC

<sup>107</sup> Plenborg et al 2012: p. 94, 107

<sup>108</sup> Damodaran 2019. *Cost of capital by sector*

in 2016). This is a sign that investors aren't getting paid for the risk they're taking. This is also the reason NAS had to go through with a private placement in 2018 and 2019.

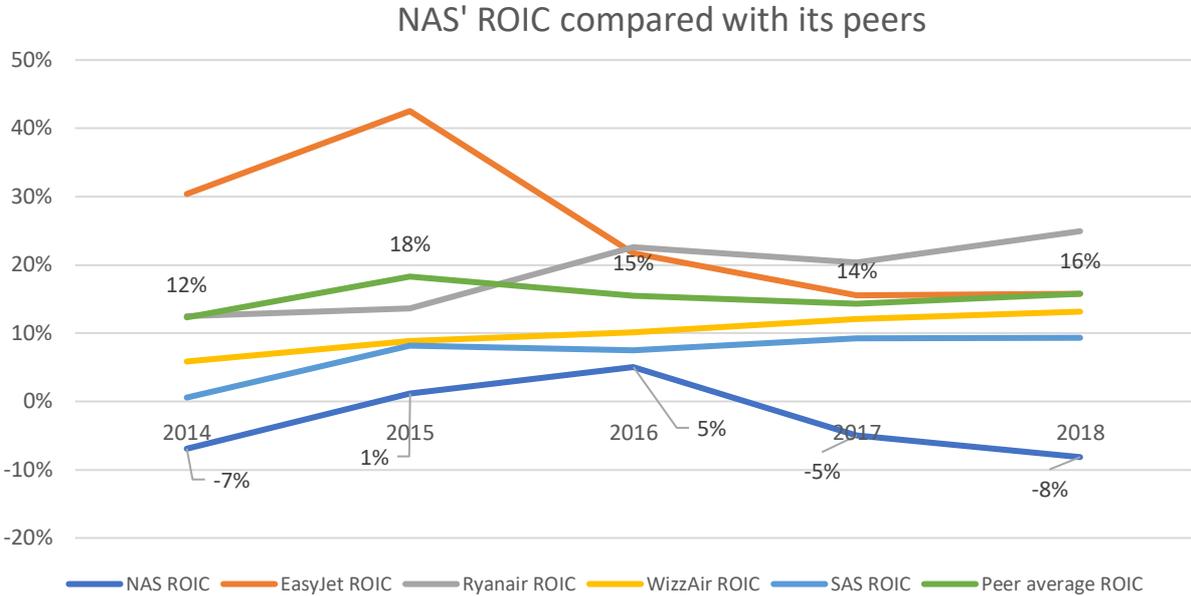


Figure 20: NAS's ROIC compared with peers. Own creation.

From Figure 20 above we can also see that the peer average ROIC is a lot more stable and higher than Norwegian with an average of 15% compared to a declining ROIC staying at -8% in 2018. If we look closer at Norwegian's peer's revenue and capital, we can see that it has had a stable growth, whereas Norwegian has increased their revenue and investments by a lot in a short period of time. The growth and investments have led to higher costs than revenue and resulted in negative results. By looking at a publication by IATA, we see that the airline industry has become very profitable for their equity investors from 2014 onwards:



Figure 21: WACC vs ROIC of the aviation industry. Creation: IATA<sup>109</sup>

It creates an alarming picture for Norwegian, but we have to keep in mind that Norwegian has been through a growth phase and is not easily comparable to other companies at this moment.

### 3.7.4 Liquidity risk analysis

The focus of a liquidity risk analysis is to determine a company's ability to pay their short-term liabilities when they mature to avoid the possibility of a bankruptcy.<sup>110</sup> The analysis will look at:

1. Current Ratio
2. Quick Ratio (acid test)
3. Interest Coverage Ratio (EBIT/Interest Expense)
4. Financial Debt ratio

### Current Ratio

The Current Ratio or also called the Working Capital Ratio is being defined by Damodaran as the relationship between the company's current assets and current liabilities.<sup>111</sup> The key figure is an indicator to how easily a company can pay its short-term debt with their most easily

<sup>109</sup> IATA 2018: p.3

<sup>110</sup> Plenborg et al 2012

<sup>111</sup> Damodaran, A. (2012)

liquidated assets. A healthy working capital ratio is for most companies over 1. Some companies have negative working capital ratios, like Spotify where the customers pay up front for the services, they provide which they use to pay their artists. Even though they are able to efficiently turn over their working capital, companies like this can be vulnerable to sudden changes in demand where they are in danger of not being able to pay their suppliers. Damodaran states that a high ratio indicates that the company is well suited to pay their short-term obligations even though something should happen to their demand. He also states that a good ratio for a normal company is around 2. This means that half of their current assets will be funded by non-current liabilities.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current Ratio (Working Capital ratio)					
	2014	2015	2016	2017	2018
NAS	0,45	0,48	0,43	0,56	0,43
EasyJet	0,89	0,72	0,92	1,04	0,97
Ryanair	1,51	1,72	1,43	1,56	1,23
Wizz Air	0,76	1,46	1,70	1,84	1,87
SAS AB	0,79	0,86	0,78	0,81	0,88
<b>Average WC ratio peers</b>	<b>0,99</b>	<b>1,19</b>	<b>1,21</b>	<b>1,31</b>	<b>1,24</b>

Table 17: Current ratio (Working capital ratio). Own creation.

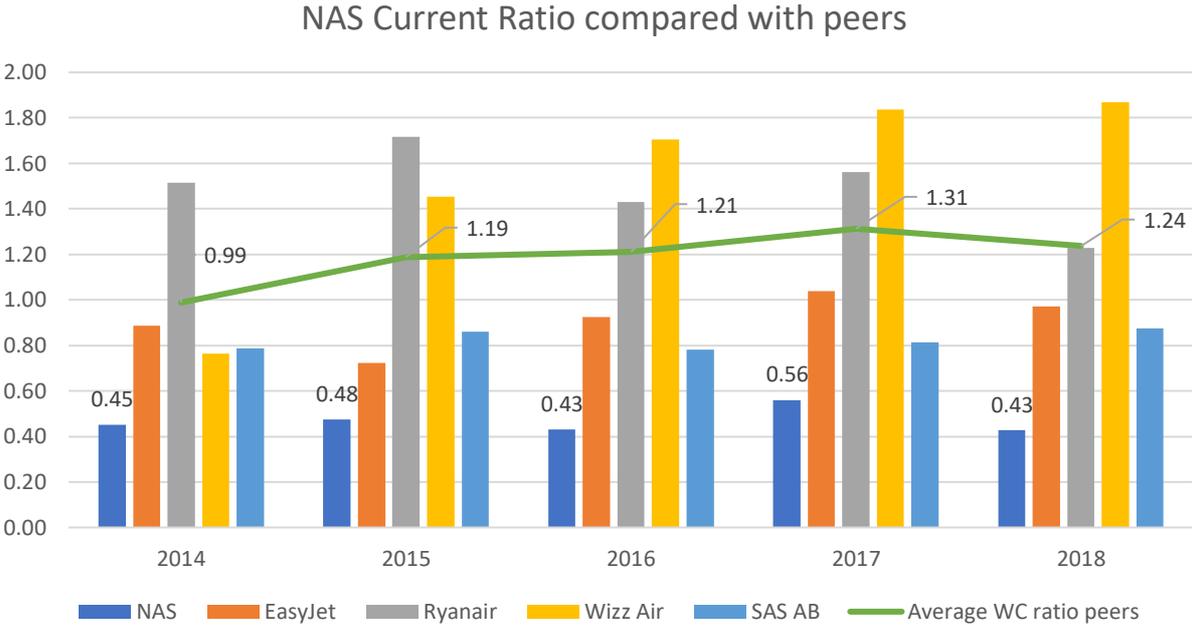


Figure 22: NAS Current Ratio compared with peer group. Own creation.

As we can see from Figure 22, Norwegian has the lowest working capital ratio of all its peers. Average Current Ratio for NAS' peers are 1.19 from 2014-2018 compared to 0.47 for NAS. In this case a normal working capital ratio of 2 would probably not be current in the aviation industry. Peer average have increased throughout the years whereas Norwegian has had a relatively stable ratio. Current assets consist mainly of cash and receivables, whereas short-term part of borrowings, other short-term liabilities and air traffic settlement liabilities are what's the main accounting records of current liabilities. Due to Norwegians growth and investments, a large part of current liabilities are the short-term part of borrowings and other liabilities which is directly related to long-term investments. This has as we've seen led to liquidity issues and caused equity offerings to happen in 2018/2019. Due to a shift in Norwegian's focus, we will most likely see an increasing current ratio in the future, but as for now this ratio tells us that they cannot afford sudden changes in demand and is vulnerable to unexpected events and indicates high risk.

### **Quick Ratio**

Quick Ratio, also called the "acid test", tells us the relationship between financial current assets and current liabilities. It includes the most liquid assets and tells us how easily the company would be able to pay its short-term liabilities in a short period of time. Damodaran states that the Quick Ratio should be compared to its peers to know the strength of the ratio for the firm, but as a rule of thumb it should be over 1.<sup>112</sup>

$$\text{Quick Ratio} = \frac{\text{Cash} + \text{Accounts Receivable} + \text{Marketable securities}}{\text{Current Liabilities}}$$

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<sup>112</sup> Damodaran, A. (2012)

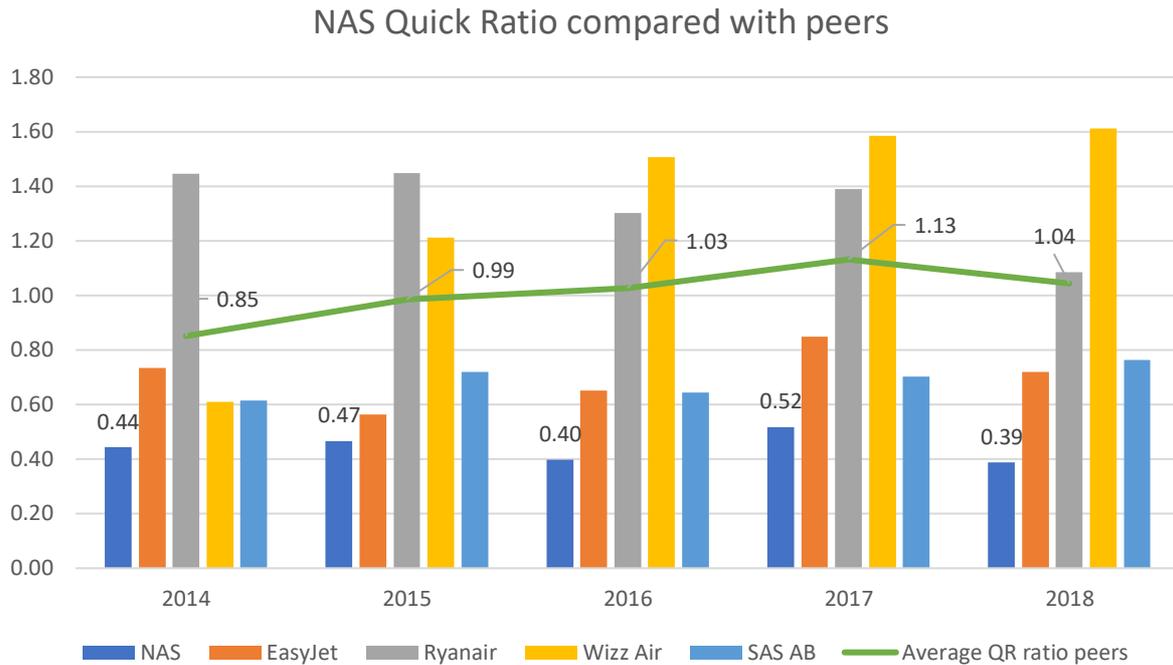


Figure 23: NAS Quick ratio compared with peers. Own creation.

Figure 23 shows that peer average is around 1, which is considered to be a healthy Quick Ratio. Norwegian on the other hand have a low Quick Ratio with an average of 0.44, which isn't too surprising as it is highly correlated to Current Ratio. Airlines normally don't hold a lot of inventory as they provide services, which means a lot of their current assets are liquid assets. This substantiates the fact that Norwegian is at risk of not being able to serve their debt and increases their credit risk. It is a sign that Norwegians original strategy as mentioned in section 2.5 Internal Analysis has taken its toll of their financials.

### **Interest Coverage Ratio (Times-Interest-Earned Ratio)**

Damodaran defines the Interest Coverage Ratio as the company's result from employed capital compared to finance cost.<sup>113</sup> In other words, the debt ratio determines how easily a company can pay interest on its outstanding debt. Even though the ratio can tell us how a company is suited to serve interest-bearing debt, it is best used as a historic measurement where one can see the development over time. If this ratio remains stable over time, it tells us that the company does a good job of serving their debt. If this start to decrease it might be a sign for investors to be wary.

<sup>113</sup> Damodaran, A. (2012)

$$\text{Modified Interest Coverage Ratio} = \frac{\text{Adjusted EBIT}}{\text{Interest Expense} + \text{Cap. op. lease expense}}$$

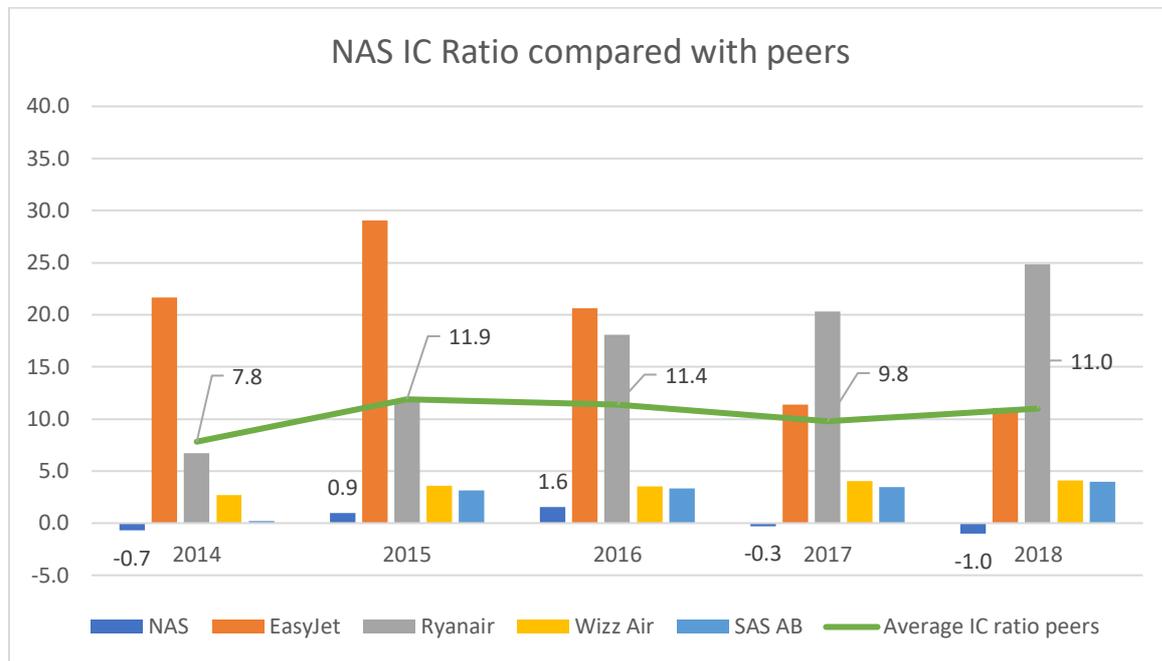


Figure 24: NAS IC Ratio compared with peers. Own creation.

As Figure 24 shows, Norwegian's Interest Coverage Ratio shows up as negative in 2014 and 2017-2018. This is due to a negative EBIT in these years. The peer average has been relatively stable. WizzAir is the only airline that has a larger order than Norwegian on new Airbus aircrafts for delivery till 2024, and we can expect them to increase interest expenses during this time. Looking at the unadjusted EBIT and not taking leasing into account, Wizz Air would have a much higher IC Ratio. Wizz Air, RyanAir and EasyJet all have noticeably lower debt than SAS and NAS, but as Wizz Air have high leasing cost, the reclassification tells us their IC Ratio is much lower than what the balance sheet tells us and is yet another example of how airlines hide debt. All the peers have a positive IC Ratio in 2018 with an average of 11. This tells us that they have their finances in order and can serve their debt with no issues. EasyJet on the other hand seems to have a decreasing ratio, and investors should follow this development. Norwegian on the other hand shows a volatile ratio and is another sign of credit risk. This is also being confirmed by a high D/E ratio as shown in Section 3.7.5 Figure 25.

## **Conclusion of liquidity risk**

From the key figures we've calculated, we can see that Norwegian is in a tough financial position. The growth and expansion Norwegian have been through has been funded by leasing, bonds and long-term borrowings. When the company produces negative results, it forces them to go to the market to get funding. Over time this will not be sustainable as investors will stay away due to risks in general and the risk of dilution.

### 3.7.5 Solvency analysis

We will now go further into how Norwegian is suited to handle a period of years with negative net income. According to Plenborg et al the purpose of a solidity analysis is to get a picture of how financially capable the company is. We will look at the Debt-to-Equity ratio, Return-on-Assets (Dupont model) and the company's covenant in relation to their position in Bank Norwegian (NOFI).<sup>114</sup>

### **Debt-to-Equity ratio and Equity ratio**

The D/E ratio tells us how geared a company is. Normally a healthy ratio would be around 1-2, but as it depends on the industry one should compare it to industry average. During times with low interest rates one would normally see that companies are higher geared due to the low cost of financing. We've now been in a period of higher global growth after the financial crisis in 2008 and with increasing interest rates, one would suggest companies to start buying back debt if highly leveraged. The equity ratio tells us how much of its total capital is funded by equity.

$$\frac{D}{E} \text{ Ratio} = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

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<sup>114</sup> Plenborg, T et al 2017.

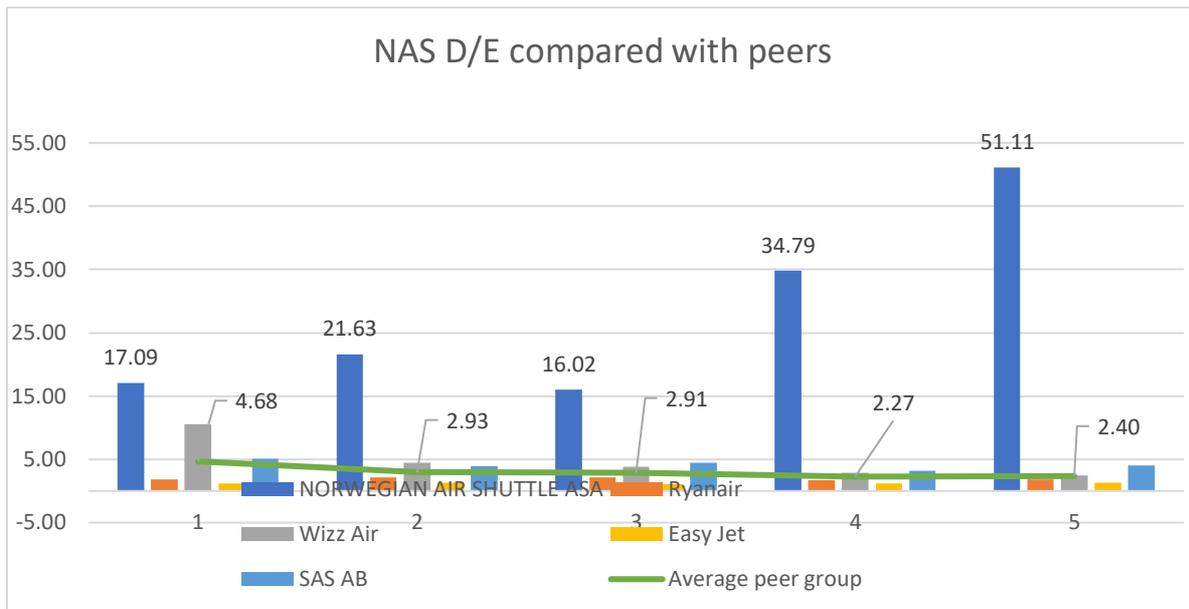


Figure 25: NAS Debt/Equity ratio compared with peers. Own creation.

$$\text{Equity ratio \%} = \frac{\text{Total Equity}}{\text{Total Assets}}$$

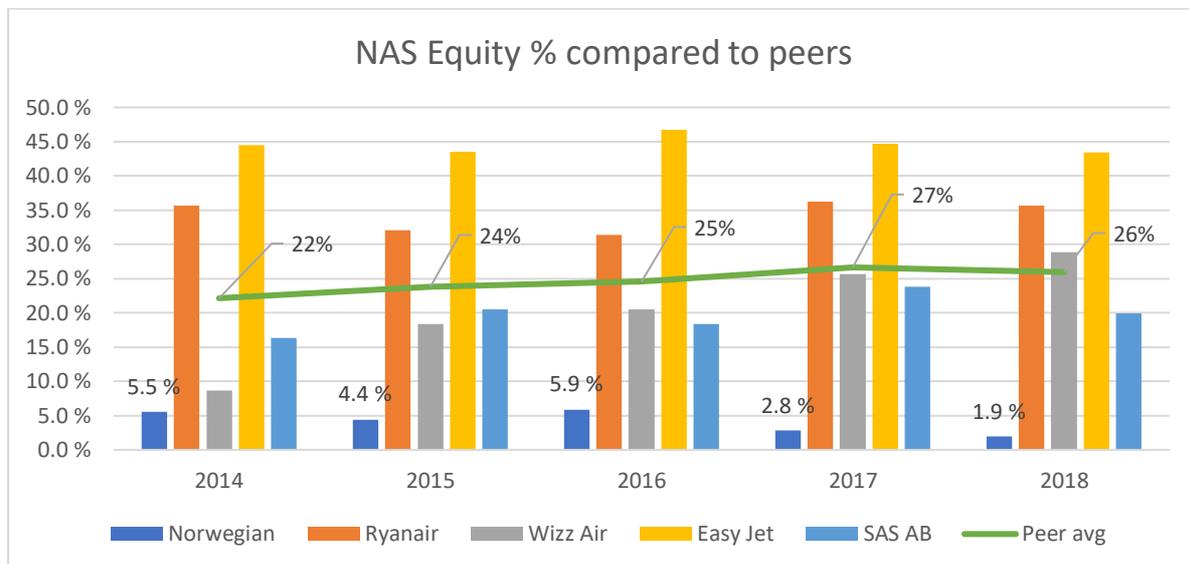


Figure 26: NAS's share of equity compared with peers. Own creation.

As we can see from both Figure 25 and 26 is that Norwegian has had increasing debt while equity has remained the same. Reported equity ratio is 3%, but as we can see due to their leasing obligations and the reclassification of these, their real equity ratio is 1.9%.<sup>115</sup> Its peers

<sup>115</sup> Norwegian Air Shuttle 2018. Annual report

have had a declining D/E from 4 to an average of 2.5, and Equity ratio of 25%. SAS and WizzAir are also above the D/E peer average. This is due to SAS also being a geared company as mentioned before. WizzAir are not in possession of large debt according to their balance sheets, but due to reclassification of leases their ratio turns out to be a lot higher. Norwegian's ratios are a long way from what is recommended and can be taken as a warning sign, together with the IC ratio as mentioned in section 3.7.4 Liquidity risk analysis. Debts must be repaid and if the percentage of equity keeps creeping down, investors will demand higher interest rates on Norwegian's bonds which can lead Norwegian into a difficult situation.

### **Covenant**

Norwegian's debt holders demanded there to be a covenant when it came to equity. The demands are as following:

- Equity of 1.5 billion NOK at all times
- Minimum liquidity of 500 million NOK
- Dividends shall not be higher than 35% of yearly results

From looking at the balance sheet in Section 3.5.2 we can see that by end of year 2018, they had 1.7 billion NOK in equity. In other words, they were almost in breach of their covenant, even though they went through with a private placement of 1.5 billion NOK the same year. This is also the reason they went through with another private placement of 3 billion NOK in 2019 and to be able to handle a tough quarter in 2019 as Q1 normally is the lowest yielding quarter in the airline industry due to seasonality.

Due to the gearing of the company, small adjustments in revenue/cost can affect their profit substantially. Therefore, it's important for Norwegian to start yielding profits, so they'll be able to handle their debts and not being in a position of violating the covenant. There are no covenants on Norwegian's outstanding debts. This is because the debt holders have security in Norwegian's fleet.

## Return on Assets

The DuPont Model is a measurement of how effectively a company is using its assets to produce returns. As Norwegians leasing obligations on assets are being used to generate profits, we've taken this into account where we've reclassified leasing obligations as debt and done the same to assets. We also adjust the net income for financial taxes and use NOPLAT calculated from Table 16 in section 3.6.

$$\text{Return on assets (RoA)} = \frac{\text{NOPLAT}}{\text{Average total assets}}$$

Return on assets (in mill NOK)										
	2014		2015		2016		2017		2018	
NOPLAT	kr	-374	kr	1 402	kr	2 268	kr	-294	kr	-1 465
Average total assets	kr	31 482	kr	51 526	kr	68 003	kr	72 005	kr	81 968
RoA		-1,2%		2,7%		3,3%		-0,4%		-1,8%

Table 18: Return on assets. Own creation.

To grasp a better picture of the return on assets we have presented this in a graph as seen below.

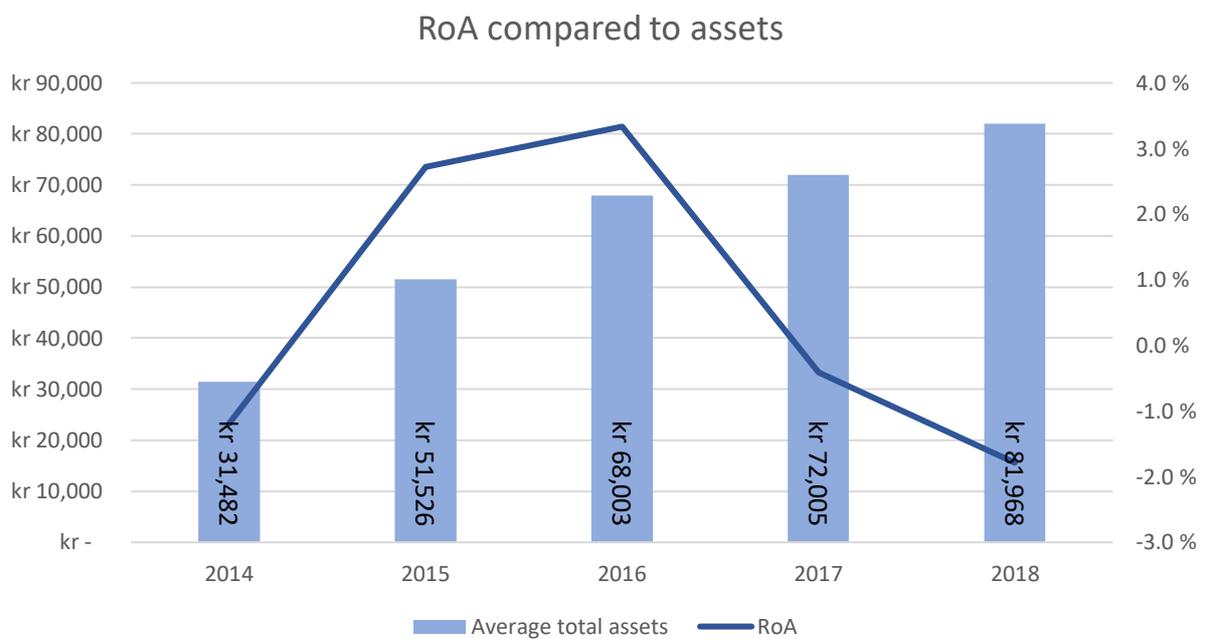


Figure 27: Return on assets calculation. Own creation.

Generally, an RoA of over 5% is good, although this depends on the industry and whether it's asset-intensive or not. As the airlines industry often is asset-intensive, even a low RoA can represent significant absolute profits. As seen in 2016 the RoA was 3,3% with an absolute profit of 2.2 billion NOK. What we can take from Figure 27 is that the profits have increased with increased assets, until 2017, and 2018 where it turned out to be negative. Being a company in growth in a low margin industry means that small changes can lead to a significant change in absolute profits, as we see from Table 18. We can also see that assets have had a steady increase with a yearly average of 30%.

As Norwegian has shifted focus from growth to profitability, we will most likely see a drop-in asset growth and hopefully a higher RoA.

### 3.8 Conclusion

We've now established what type of company Norwegian is, both historically and what their long-term strategies are. Norwegians vision is to make flying affordable for everyone.<sup>116</sup> As the aviation industry is an economy of scale business (see section 2.3 Porters five forces), the bigger a company is, the lower fixed cost is going to be compared to revenue. That's the reason some airlines created alliances (see section 1.2 The airline industry and competitors) to benefit from other airlines bases and routing network. Given Norwegians expansion, they've been able to gain market share and build up a strong brand name. They have become an acknowledged player in the industry and is planning to take advantage of this. Their long-haul commitment is proof of that. With new emerging markets expected to increase demand for air travel as shown in section 2.1 Figure 5, there is a large market that is yet to be taken advantage of.

This has also taken a toll on Norwegians financial state. Profit margins have turned negative, not being able to serve debt as seen by the IC ratio in Figure 24, which has resulted in measures being taken by management in terms of private placements. By ratios calculated, one can see that all of them show they are far below average. The negative working capital ratio as shown in Figure 22 shows they are fragile and is again supported by the Quick Ratio in Figure 23. During this period the D/E ratio has had a tremendous increase, while absolute equity has remained the same, resulting in a lower equity ratio. We also see that the RoA has

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<sup>116</sup> Norwegian Air Shuttle.

decreased together with increased assets. This increase is in par with Norwegians strategy, but as margins tighten there is little to no room for surprises, such as increase fuel costs and losses in terms of fuel hedging. Issues with their aircraft fleet and logistics has also caused increased cost in this period.

## 4.0 Forecasting

As Norwegian has stated that a process has been started by shifting focus from growth to profitability, with the cost-cutting program Focus2019 and delaying of deliveries, the forecasting cannot solely be based on historical performance. We will therefore use the information given and keep this in mind when forecasting and use different ways of forecasting due to this.

A critical part of the valuation is the forecast and where the future cash flows are estimated, this is what we will base our valuation on. The forecast will mostly be driven by the growth in available seat kilometer (ASK). Under forecasting we have calculated future growth in ASK based on what kind of aircraft and the number of aircrafts delivered in the forecasted period. Normally you calculate cost items based on a % of the revenue or even use the GDP as a growth rate. In terms of valuing Norwegian, we believe that this would have provided wrong estimates. Due to change in strategy and therefore the difficultness of forecasting revenue and cost items, we have decided to use the growth in ASK. When forecasting cost items, we will take the initiative #focus2019 and their future strategy mentioned in section 2.0 into consideration as this was stated in the annual report 2018.<sup>117</sup>

### 4.1 Forecasting period

In terms of the valuation, we have decided to go for a 5-year horizon. This is due to that a forecasting period should not stretch longer than an analyst can make better estimation than constant growth. Analysts are using a variation of time horizons. It mainly depends on how many years it is believed that the company will continue to exist. In our case we find a horizon of 5-year to be appropriate due to that Norwegian operates in an industry with long-term investments, long-term contracts and high exit barriers as mentioned in section 2.3 under Competition in the industry.

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<sup>117</sup> Norwegian Air Shuttle 2018. Annual report

## 4.2 Growth in revenue

In terms of forecasting Norwegian's revenue, it's important to state that a major portion of revenue comes from passenger transport. In 2018, 80,86 % of revenue was constituted from passenger transport. Growth in other revenues will be forecasted in line with the growth in ASK and historical growth.

### Passenger transport revenue

Passenger revenue is reliant on two factors. Volume of passengers and price of tickets. Passenger revenue is basically a product of volume (number of paying customers) and price (price paid per customer). First of all, we will try to forecast a reasonable price development. Secondly, we will try to come up with an estimate of volume for the 5-year period. These results will give us a passenger revenue forecast.

### Ticket price

When forecasting the price, we have chosen to look at the price the customer is paying each ASK (available seat kilometer) and the inflation in Europe for the forecasting period. As ticket prices fluctuates it's hard to forecast this any different. By following this model, we consider ticket prices to be in par with inflation. Considering the intense competition between the LCC's we don't believe that there will be any significant rise in the ticket prices. In terms of the inflation, European Central Bank estimates a growth of 1,8% looking 5-year ahead.



Figure 28: Ticket price development. Own creation.

To summarize, as we can see in Figure 28 prices has dropped the last 4 years. We are assuming that the prices will stabilize and experience a nominal growth of approximately

1,8% yearly in line with the European inflation. Due to overcapacity as mentioned in section 2.2 Supply and Demand we believe that there will be no real growth. Due to difficultness of splitting short- and long-haul we have estimated an average price between these two.

**Volume**

When forecasting volume, we have decided to estimate the future growth in terms of new routes and planes. We are in the belief that this will give the most correct projections. Norwegian will in the 5-year period expand their fleet with more aircraft deliveries. As Stine from Norwegian’s investor relations department have provided us with the weighting of the long- and short-haul operations we were able to estimate how much a new 787-Dreamliner and new short-haul planes increases the ASK. The calculations can be seen in appendix 9.3.

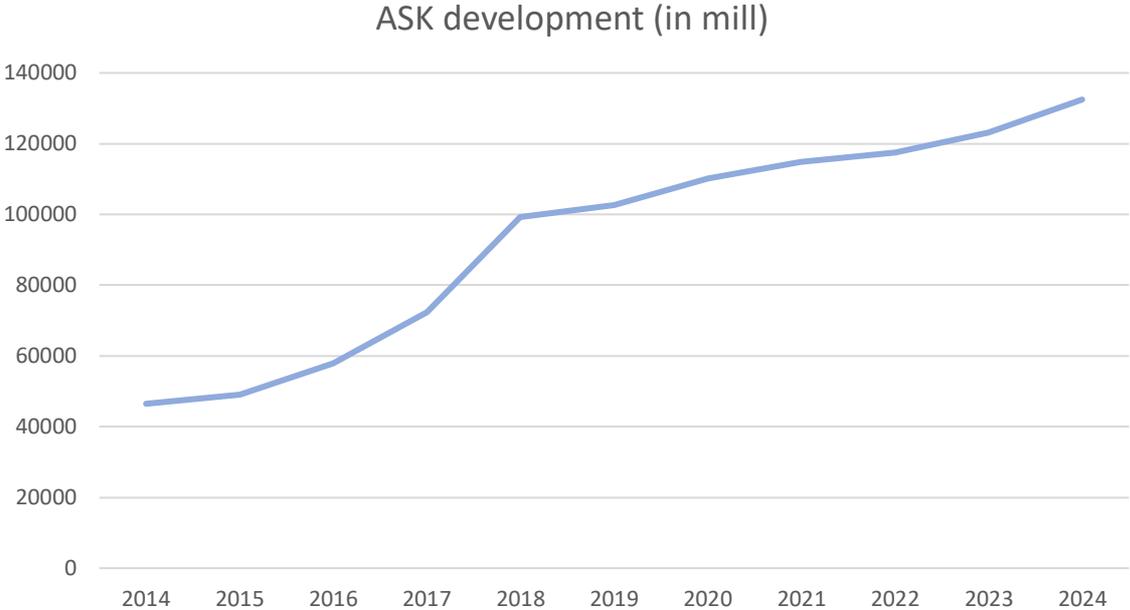


Figure 29: Available seat kilometers development. Own creation

Expected growth in ASK is shown in Figure 29. Taken the #focus2019 program and that Norwegian’s main goal is to be profitable in 2019 in consideration, we expect growth to slow down, going from a compounded annual growth rate of 16% in 2014-2018 to a yearly compounded annual growth rate of 5% from 2019-2024 as seen from Figure 29. Norwegian were supposed to get delivered a lot more planes in 2019 and 2020 than what is shown here. Due to the cost-cutting focus as stated earlier, a large portion of deliveries have been postponed. In appendix 9.3 you can see the calculations from plane deliveries and the

expected delivery plan in the coming years. We decided to use the average between year X<sub>1</sub> and X<sub>2</sub>. The main reason for this is that it is uncertain when the planes are being delivered each year. We believe that this makes it more accurate.

**Passenger revenue forecast**

Now that we have forecasted both price and volume for the period, we are ready to calculate the implied revenue forecast. The passenger transport revenue is calculated by multiplying the available seat kilometer (ASK) with the expected load factor and expected ticket price. In regard to the expected load factor we have used the historical average. This load factor represents the ability to fill up the planes even in a growth phase. As Norwegian now plan to flatten out the growth, we believe that a load factor of 85,6% is more than reasonable. In table 19 you can see the estimations.

Forecasted revenue - ASK and ticket price														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
ASK	98 810		102 708		110 095		114 814		117 424		123 053		132 474	
Expected Load factor	85,8 %		85,6 %		85,6 %		85,6 %		85,6 %		85,6 %		85,6 %	
Ticket price	NOK	0,38	NOK	0,39	NOK	0,40	NOK	0,41	NOK	0,41	NOK	0,42	NOK	0,43
Passenger revenue mill NOK	NOK	32 425	NOK	34 299	NOK	37 501	NOK	39 890	NOK	41 613	NOK	44 480	NOK	48 843

Table 21: Forecasted passenger transport revenue. Own creation.

In order to understand the forecast better, we illustrate the historical revenues and forecasted revenues in Figure 30. The blue column shows the growth from each year. The annual compounded growth is 10,52%.

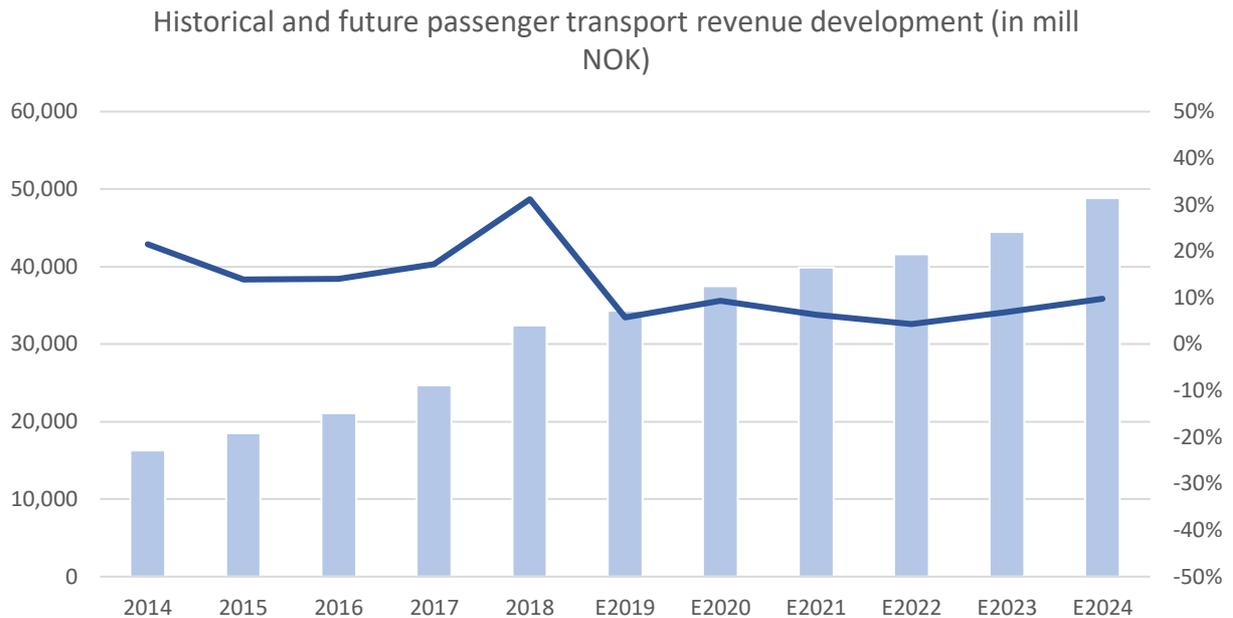


Figure 30: Historical and future passenger transport revenue development. Own creation.

As the historical passenger transport revenue has had a yearly growth of 10,52%, our forecast of future passenger transport revenue is quite optimistic. With that said, this is in line with the coming deliveries of new planes. However, as stated in section 2.0 strategic analysis, where the macroeconomic factors were harsh, the supply and demand equilibrium are constantly putting pressure on ticket prices. Also, the five forces illustrate a competitive industry that does not exactly support the idea of passenger transport revenue growth. Still, as Norwegian is shifting their focus from growth to profitability we believe that due to Norwegians fleet and actions there will be opportunities for profits in the near future. Norwegian is undergoing major changes where they are cutting cost like administration, bases and postponing deliveries of new planes to keep the investment cost down.

*In summary, we are carefully optimistic in our forecasting of passenger transport revenue. As stated, we have based our forecast on growth in the ASK and the ticket prices. We believe that this growth will decrease in the future.*

## Ancillary and other revenue

This revenue bucket consists of 3 separate revenue items. Ancillary revenue amounted to 15,6% of total revenue while other revenue (Freight and other) amounted to 3,57% of total revenue. In terms of forecasting, we have decided to use Norwegians guiding and the growth in ASK as factors for the forecast.

## Ancillary revenue

Norwegian operates with a guiding of ancillary revenue to reach 20% of total revenue in the coming years. Ancillary revenue consists of other services directly generated from ticket sales. As of 2018, the ancillary revenue amounted to 15,6% of total revenue. Norwegian has over the last 5 years had an average growth of 23,18% in ancillary revenue. Based on this we estimate that ancillary revenue will in the next two years amount to 17% and 19% of total revenue. From 2021-2024 we expect them to reach a goal of 20% of total revenue.

Considering that Ryanair have had an average ancillary revenue of 25 % the last 5 years it is to believe that Norwegian could reach 20% within 3 years.

Forecasted growth in ancillary revenue (mill NOK)														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
Ancillary revenue	NOK	6 267	NOK	7 520	NOK	9 024	NOK	10 107	NOK	11 117	NOK	11 784	NOK	12 609
% growth		29,9 %		20,0 %		20,0 %		12,0 %		10,0 %		6,0 %		7,0 %
Total operating revenue	NOK	40 266	NOK	43 334	NOK	48 182	NOK	51 760	NOK	54 569	NOK	58 230	NOK	63 611
Percentage of total revenue		16 %		17 %		19 %		20 %		20 %		20 %		20 %

Table 22: Forecasted growth in ancillary revenue. Own creation.

As shown in Table 20, we are estimating a quite optimistic growth in ancillary revenue from 2019 to 2022. From there we believe growth will slow down from 2021 and out. We have not made any further estimations of different value drivers in the ancillary revenue.

## Other revenue (Freight and other)

The revenue bucket of other operating revenue is a consolidation of sales that are not directly related to an airline ticket, such as cargo and sales of third-party products. (Annual report 2018)<sup>118</sup> As with this revenue bucket we will not break this into drivers for growth. In order to forecast the growth, we will base this on the development in the available seat kilometers (ASK).

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<sup>118</sup> Norwegian Air Shuttle ASA 2018. Annual report.

Forecasted growth in other revenue (mill NOK)							
Year	2018	E2019	E2020	E2021	E2022	E2023	E2024
Other revenue per ASK	0,017	0,0172	0,0176	0,0179	0,0183	0,0187	0,0190
Expected Load factor	0,858	0,856	0,856	0,856	0,856	0,856	0,856
ASK	98810	102708	110095	114814	117424	123053	132474
% growth in other revenue	1,9 %	5,8 %	9,3 %	6,4 %	4,3 %	6,9 %	9,8 %
Other revenue	1433	1516	1657	1763	1839	1966	2158

Table 23: Forecasted growth in other revenue. Own creation.

As Table 23 shows we have split other revenue into revenue per ASK to break it down and make it able to forecast it by using growth in ASK. As discussed under passenger revenue forecast, we aim to use a historical load factor from year 2014 to 2018. From 2018 to 2024 we believe Norwegian will experience a compounded annual growth of 6,02% in other revenue.

To get a better view of how these revenue drivers are contributing to overall growth in revenue, we've compiled the forecast in Table 24 below.

Revenue cashflow forecast (mill NOK)														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
Passenger transport	NOK	32 425	NOK	34 299	NOK	37 501	NOK	39 890	NOK	41 613	NOK	44 480	NOK	48 843
Ancillary revenue	NOK	6 407	NOK	7 520	NOK	9 024	NOK	10 107	NOK	11 117	NOK	11 784	NOK	12 609
Other revenue (Freight and other)	NOK	1 433	NOK	1 516	NOK	1 657	NOK	1 763	NOK	1 839	NOK	1 966	NOK	2 158
Total operating revenue	NOK	40 266	NOK	43 334	NOK	48 182	NOK	51 760	NOK	54 569	NOK	58 230	NOK	63 611
% growth in total operating revenue		30,1 %		7,6 %		11,2 %		7,4 %		5,4 %		6,7 %		9,2 %

Table 24: Forecasted growth in revenue. Own creation.

Our forecast of total operating income is carefully optimistic. However, as the forecasted revenue are based on both growth in ASK and the economy as a whole there will also be associated costs related to the growth. We do forecast that transport revenue and ancillary revenue will stabilize at a normal growth from 2024 onwards.

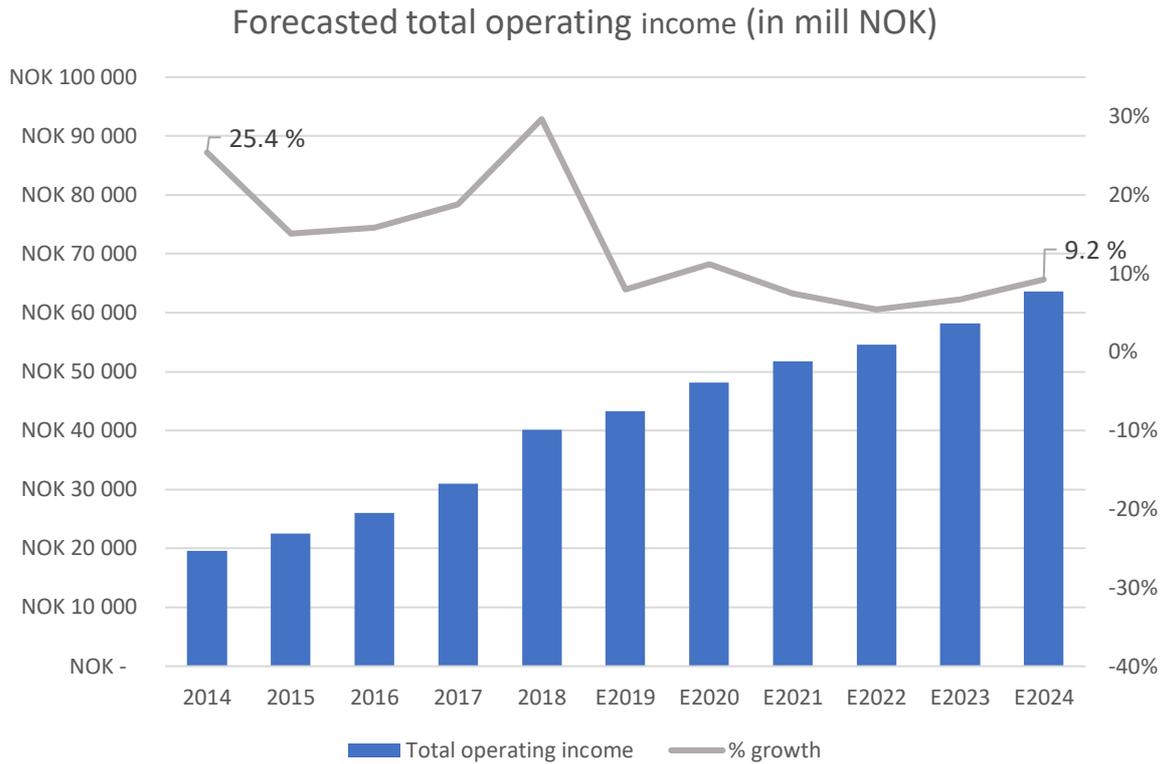


Figure 31: Forecasted development in the total operating income. Own creation.

### Summary of the revenue forecast

*In summary, the total revenue forecast is quite optimistic. We believe that growth in the next years will come from organic growth in the market together with the growth in ASK. We are in the belief that the growth will stabilize in the future and reach global growth, so we estimate with a terminal growth rate of 2,5 %.*

### 4.3 Cost growth forecast

We will in this section forecast cost and assess the main drivers for cost. First, we will start off by breaking down operational cost into four cost buckets. Total operating expenses constitutes of 76% of the total operating cost. Further, we will estimate the future payroll and other personnel expenses (constituting 15% of the total operating cost), followed by depreciation and amortization, and at last other aircraft expenses which amounts to 4% each. As revenue is forecasted on the basis of the growth in ASK, we will take the growth in ASK into consideration. We do not believe that all of the cost items will grow in line with ASK, but will of course take this into consideration. On some of the cost items we will base the growth on the inflation rate either in Norway or Europe.

## Operating expenses

Operating expenses is the most significant cost for the company, it constitutes of 76% of the total operating cost. We have under operating expenses divided this into four buckets which is Sales and Distribution expenses, Aviation fuel, Aircraft leases, Airport charges, Handling charges, technical maintenance expenses and at last the other operating expenses.

## Sales and distribution expenses

We have under sales and distribution expenses estimated a future growth of 2% which is the inflation target in Norway. Due to #focus2019 and their strong market position as mentioned in 2.4 Internal analysis we believe that they will try and avoid huge sales and distribution cost. We are not in the belief that the sales and distribution expenses will grow in line with the growth in ASK as other cost items do.

Sales and distribution expenses (in mill nok)														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
ASK		98810		102708		110095		114814		117424		123053	132474	
Per ASK	NOK	0,0089	NOK	0,0087	NOK	0,0083	NOK	0,0081	NOK	0,0081	NOK	0,0079	NOK	0,0075
Inflation rate		2 %		2 %		2 %		2 %		2 %		2 %		2 %
Sales and distr.	NOK	879	NOK	896	NOK	914	NOK	932	NOK	951	NOK	970	NOK	989

Table 25: Forecasted sales and distribution expenses. Own creation.

## Aviation fuel

Aviation fuel is the largest cost item and the most difficult one to predict. There is a large correlation with jet fuel prices and oil prices, and oil prices is hugely affected by geopolitical risk and macroeconomic factors. We found that the jet fuel price was traded about 20% over the oil price (30.04.2019). On this date the oil price was trading at \$72,80 and the jet fuel at \$84,92. This is a spread of 16%. In our analysis we have used projections that estimates an oil price of 70\$ in 2019.

We have estimated future fuel cost by running a regression on the last 20 years of monthly data on oil prices and jet fuel prices<sup>119</sup> we did find that the jet fuel price can be estimated by the following equation as shown below and in appendix 9.6.

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<sup>119</sup> Data obtained from Eikon Reuters

$$\text{Jet fuel price} = 3,4619 + 1,135 * \text{oil price}$$

By entering an oil price of \$69,64 for 2019 we got an expected fuel price of \$82,50. First of all, we calculated the fuel cost of each available seat kilometer (ASK) for 2018. Then we used this as our base for further calculations. As the price for each tonnes were \$679,30 in 2018 for jet fuel we used this as base cost for our hedge position considering they hedged at a price of \$680/mt. Further on, we split the existing ASK and the new one. The reason for this is that the new planes are more fuel efficient than a large portion of the existing fleet. By dividing all the new planes by the whole fleet, we got a percentage of 30,49%. We then multiplied this with the 15% fuel efficiency gained on new aircrafts compared to old ones. This summed up to be a factor of 10%.<sup>120</sup> Further on we estimated the future fuel consumption in the forecasted period which again could be used to estimate future fuel cost for the coming period. In terms of hedging, we have used 38% which Norwegian Air Shuttle has guided with, and then we have assumed a decreasing hedge position over the years with the same cost. We assume that the oil prices will stay relatively stable over the period. However, oil prices and jet fuel prices, and not at least the relationship between USD/NOK are very volatile, and these prices will most likely change in the future. As of the USD/NOK, we used an interest of 2,25% in the US and 1% in Norway.<sup>121</sup> After all, we do believe that this is the best estimates we have and will therefore use these. Calculations can be seen in appendix 9.4, and on the next page is a simplified example.

Year	Aviation fuel													
	2018		E2019		E2020		E2021		E2022		E2023		E2024	
ASK forecast (in mill)	98 810		102 708		110 095		114 814		117 424		123 053		132 474	
ASK 2018 (in mill)	98 810		98 810		98 810		98 810		98 810		98 810		98 810	
Growth in ASK (in mill)	-		3 899		11 285		16 004		18 614		24 243		33 664	
15% Efficiency factor	10 %		10 %		10 %		10 %		10 %		10 %		10 %	
Fuel per ASK in barrels	NOK	0,16	NOK	0,16	NOK	0,16	NOK	0,15	NOK	0,15	NOK	0,15	NOK	0,15
Fuel consumption in barrels	15 512 460		16 064 938		17 111 748		17 780 520		18 150 334		18 948 110		20 283 163	
USD/NOK Multi markets guiding	\$	85,7	\$	82,5	\$	79,5	\$	79,5	\$	79,5	\$	79,5	\$	79,5
Barrel price	\$	679,3	\$	654,3	\$	630,5	\$	630,5	\$	630,5	\$	630,5	\$	630,5
<b>Total fuel cost (in mill)</b>	<b>NOK</b>	<b>12 562</b>	<b>NOK</b>	<b>11 552</b>	<b>NOK</b>	<b>11 766</b>	<b>NOK</b>	<b>11 981</b>	<b>NOK</b>	<b>12 031</b>	<b>NOK</b>	<b>12 403</b>	<b>NOK</b>	<b>13 111</b>

Table 26: Forecasted aviation fuel cost. Own creation.

As seen in the table 26, we expect fuel cost to decrease in 2019. Available seat kilometers rose with 36,6% from 2017 to 2018 and at the same time fuel cost rose 71%. We believe that

<sup>120</sup> Aeronewstv.com. (2019)

<sup>121</sup> Tradingeconomics.com

this enormous growth in fuel cost comes from hedging at the wrong point and loss on derivative trading. This is the main reason why we believe that we will see a price drop in fuel cost for the coming period.

**Aircraft leases**

In terms of aircraft leases, we have calculated this from the given information in the table below and then spread it out according to this in the respective years. These leases include long term leases and wet leases, so these costs could vary a bit. It is hard to estimate any more correct estimations than the ones below. There is a chance that the leasing cost could increase due to the 737-MAX issues, but it is very hard for us to make any estimations regarding this.

Leasing plan (mill NOK)		
Within 1 year	kr	5 036
Between 1 and 5 years	kr	17 657
After 5 years	kr	16 912
<b>Sum</b>	<b>kr</b>	<b>39 605</b>

Table 27: Leasing plan

In table 28 you can see the forecasted cost for the coming period.

Aircraft leases (in mill NOK)							
Year	2018	E2019	E2020	E2021	E2022	E2023	E2024
Duration	-	1	1 to 5	1 to 5	1 to 5	1 to 5	5 +
<b>Aircraft leases</b>	<b>NOK 4 354</b>	<b>NOK 5 036</b>	<b>NOK 4 414</b>	<b>NOK 4 414</b>	<b>NOK 4 414</b>	<b>NOK 4 414</b>	<b>NOK 3 470</b>

Table 28: Forecasted aircraft leases. Own creation.

**Airport charges**

With the estimation of future airport charges, we are calculating with a growth in line with the inflation in Europe of 1,8%. It is to be considered that the growth in ASK should be used, but we believe that Norwegian will increase the frequency of the flights. At the same time, it is difficult to say whether they are expanding to new places with new airports, but as #focus19 is running we are in the belief that they will reduce such costs and renegotiate new deals.

Airport charges (in mill NOK)														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
Inflation rate Europe		1,8 %		1,8 %		1,8 %		1,8 %		1,8 %		1,8 %		1,8 %
Airport charges	NOK	4 374	NOK	4 452	NOK	4 533	NOK	4 614	NOK	4 697	NOK	4 782	NOK	4 868

Table 29: Forecasted airport charges. Own creation.

### Handling charges

Handling charges will be forecasting in line with growth in ASK. We believe this to be reasonable as handling charges will increase with new delivery of airplanes. It could be discussed that the technology in the coming years will make handling more efficient and that less manpower is needed, reducing the cost item handling charges. As we don't have anything specific information regarding this, we think that a growth in line with the ASK and the inflation rate seems like a reasonable estimate. In table 30 we have shown our calculations.

Handling charges (in mill NOK)														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
ASK		98810		102708		110095		114814		117424		123053		132474
Per ASK	NOK	0,0526	NOK	0,0536	NOK	0,0545	NOK	0,0555	NOK	0,0565	NOK	0,0575	NOK	0,0586
Inflation rate Europe		1,8 %		1,8 %		1,8 %		1,8 %		1,8 %		1,8 %		1,8 %
Handling charges	NOK	5 201	NOK	5 503	NOK	6 005	NOK	6 375	NOK	6 637	NOK	7 081	NOK	7 760

Table 30: Forecasted handling charges. Own creation.

### Maintenance expenses

As Norwegian's fleet are growing, so is their technical maintenance expense. The planes being delivered to Norwegian are brand new generations that require less maintenance and therefore lowers because of this.<sup>122</sup> However, it is difficult to say how much the maintenance cost will be reduced because of this. Therefore, we find growth in ASK and inflation in Norway as reasonable estimates regarding growth in maintenance expenses.

Technical maintenance expenses (in mill NOK)														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
ASK		98810		102708		110095		114814		117424		123053		132474
Per ASK	NOK	0,0354	NOK	0,0361	NOK	0,0368	NOK	0,0375	NOK	0,0383	NOK	0,0390	NOK	0,0398
Inflation rate Norway		2,0 %		2,0 %		2,0 %		2,0 %		2,0 %		2,0 %		2,0 %
Technical maintenance expenses	NOK	3 494	NOK	3 704	NOK	4 050	NOK	4 308	NOK	4 494	NOK	4 804	NOK	5 275

Table 31: Forecasted technical maintenance expenses. Own creation.

<sup>122</sup> Hale J. 2006

## Other aircraft expenses

As of other aircraft expenses we have calculated a growth in line with the inflation target in Norway which is 2%. We have no reason to believe that this will rise dramatically considering they are shifting strategy from growth to profitability as stated in section 2.0 Strategy.

Other aircraft expenses (in mill NOK)							
Year	2018	E2019	E2020	E2021	E2022	E2023	E2024
Inflation rate Norway	2 %	2 %	2 %	2 %	2 %	2 %	2 %
<b>Other aircraft expenses</b>	<b>NOK 2 102</b>	<b>NOK 2 144</b>	<b>NOK 2 231</b>	<b>NOK 2 367</b>	<b>NOK 2 562</b>	<b>NOK 2 829</b>	<b>NOK 3 186</b>

Table 32: Forecasted other aircraft expenses. Own creation.

After forecasting all operational expenses, we can see from Table 31 that total operational costs are lower in 2019 compared to 2018 due to cost-cutting and mainly lower fuel costs.

Opex split - Buckets (in mill NOK)										
Year	2018	2019	2020	2021	2022	2023	2024			
<b>Operational expenses</b>	<b>NOK 32 965</b>	<b>NOK 33 322</b>	<b>NOK 33 911</b>	<b>NOK 34 991</b>	<b>NOK 35 787</b>	<b>NOK 37 282</b>	<b>NOK 38 658</b>			
Sales and distributoin expenses	NOK 879	NOK 896	NOK 914	NOK 932	NOK 951	NOK 970	NOK 989			
Aviation fuel	NOK 12 562	NOK 11 587	NOK 11 766	NOK 11 981	NOK 12 031	NOK 12 403	NOK 13 111			
Aircraft leases	NOK 4 354	NOK 5 036	NOK 4 414	NOK 4 414	NOK 4 414	NOK 4 414	NOK 3 470			
Airport charges	NOK 4 374	NOK 4 452	NOK 4 532	NOK 4 613	NOK 4 696	NOK 4 781	NOK 4 867			
Handling charges	NOK 5 201	NOK 5 503	NOK 6 005	NOK 6 375	NOK 6 637	NOK 7 081	NOK 7 760			
Techinal maintenance expenses	NOK 3 494	NOK 3 704	NOK 4 050	NOK 4 308	NOK 4 494	NOK 4 804	NOK 5 275			
Other aircraft expenses	NOK 2 102	NOK 2 144	NOK 2 231	NOK 2 367	NOK 2 562	NOK 2 829	NOK 3 186			

Table 33: Forecasted total operating expenses. Own creation.

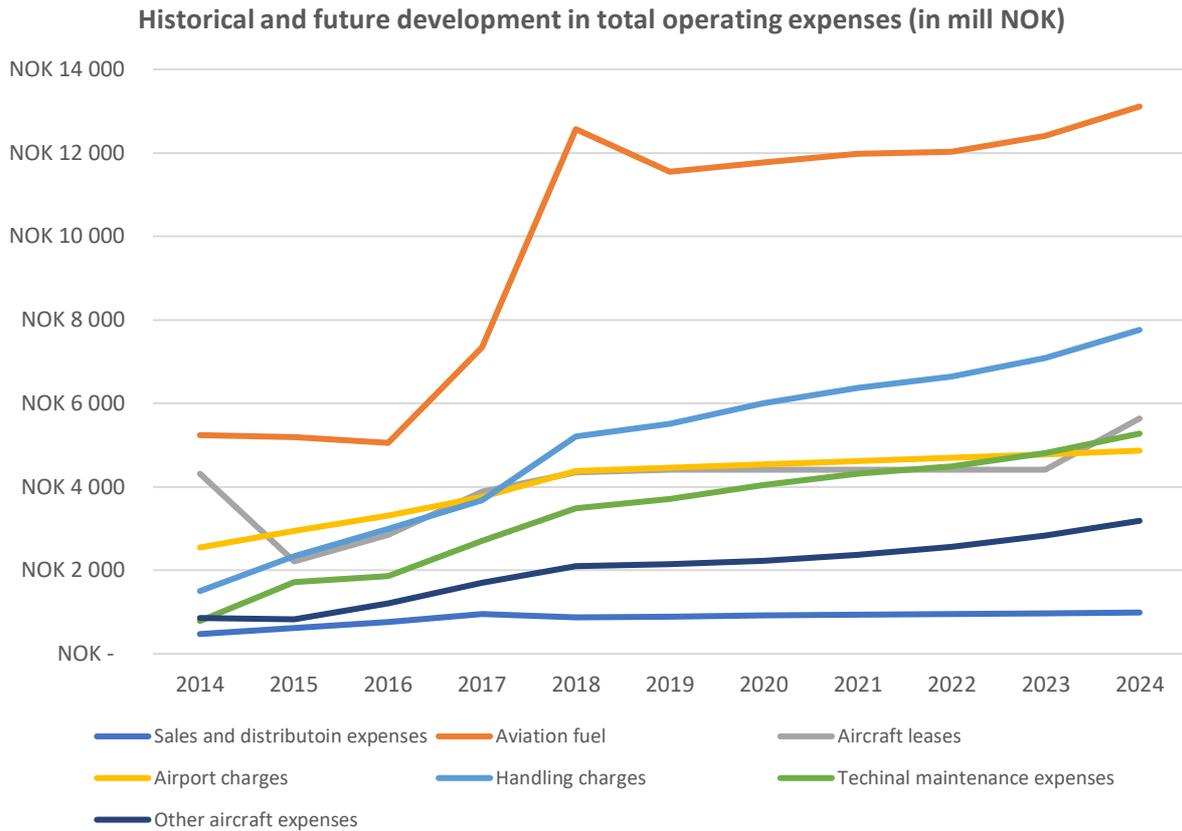


Figure 32: Historical and future cost development in operating expenses. Own creation.

From Figure 32, we can see that Norwegian has increased cost at a rapid speed from 2014-2018 due to the expansion. As they are shifting from growth to profitability, we see that from 2019 and out, the growth in cost will slow down and mainly follow inflation and ASK.

### Payroll and other personnel expenses

In terms of estimating the payroll and other expenses we could do it in two different parameters. 1) Payroll expense per employee or 2) Payroll expenses growing in line with the growth in ASK. In alternative 1) we could have forecasted salary level and personnel needed. However, after estimating future personnel needed with forecasted salary level in line with Norges Bank's forecasted growth in salary we quickly discovered a salary in the forecasted period that is was not competitive and quite unrealistic. With a growth in salary of 3,5% and increasing personnel needed the average payroll and other personnel cost were unrealistically high, in 2024 the average salary was just above 1.3 million NOK. So due to lack of accurate data on the expected growth we decided to go forward with alternative 1). We estimated the payroll expense based on the growth in ASK with the growth in salary each year of 3,5% as

forecasted by Norges Bank.<sup>123</sup> In order to project the future payroll expenses, we will first look at the historical trend in productivity (ASK in mill/employees) and then estimate an expected future development.

The historical development in productivity is quite volatile from year 2014 to 2018. However, from 2014 to 2018 there is just a difference of 5%, meaning that the employees were more effective in 2014 than in 2018. The compounded annual average growth in ASK/Employees is 1,01%, so we could assume a decreasing factor 1,01% in ASK/employees. We believe that the program #focus2019 will significantly impact the effectiveness of the employees and that the ASK/Employees will be reduced, but it is hard to make an estimation based on an assumption. This generally means that each person would be more efficient, and that Norwegian would be able to handle more ASK with the same number of employees, or maybe even less. However, we will use the historical development in the forecasted period and will then use a factor of 1.0101 when estimating future cost. Although it is important to take into consideration that Norwegian are using hired labor from Thailand on the long-haul routes reducing the payroll expenses and resulting in a better productivity (ASK/employees). These calculations we have shown in the appendix 9.5.

Table 34 shows forecasted cost for payroll and other personnel expenses.

		Payroll and other personnel expenses (mill NOK)													
Year		2018 E2019		2020		2021		2022		2023		2024			
Payroll and other personnel expenses	NOK	6 665	NOK	7 242	NOK	8 035	NOK	8 673	NOK	9 180	NOK	9 957	NOK	11 094	
% growth in cost per ASK		25,4 %		8,7 %		10,9 %		7,9 %		5,9 %		8,5 %		11,4 %	
Number employees		10215		10725		11612		12232		12636		13376		14545	
ASK in mill		98810		102708		110095		114814		117424		123053		132474	
Number employees per ASK		0,103		0,104		0,105		0,107		0,108		0,109		0,110	
% Decreasing productivity		-22,0 %		1,0 %		1,0 %		1,0 %		1,0 %		1,0 %		1,0 %	

Table 34: Forecasted payroll and other expenses. Own creation.

Furthermore, estimating the payroll and other personnel expenses we have in general based the estimations on the growth of ASK, including the estimated wage increase in Norway and the decrease in the effectivity of employees. The annual compounded average growth in payroll and other personnel expenses from 2019 to 2024 is 7,37%. As a comparison, from 2014 to 2018 the compounded annual growth was 15,74%. It should be discussed whether the productivity will increase or decrease, and it should be questioned considering they are as

<sup>123</sup> Powerpoint Presentation. (2018). «Utsiktene for norsk økonomi».

stated in section 2.0 turning focus from growth to profitability. As this is hard to assess, we've chosen the assumptions stated above.

To understand this a bit better we have illustrated this with Figure 33.

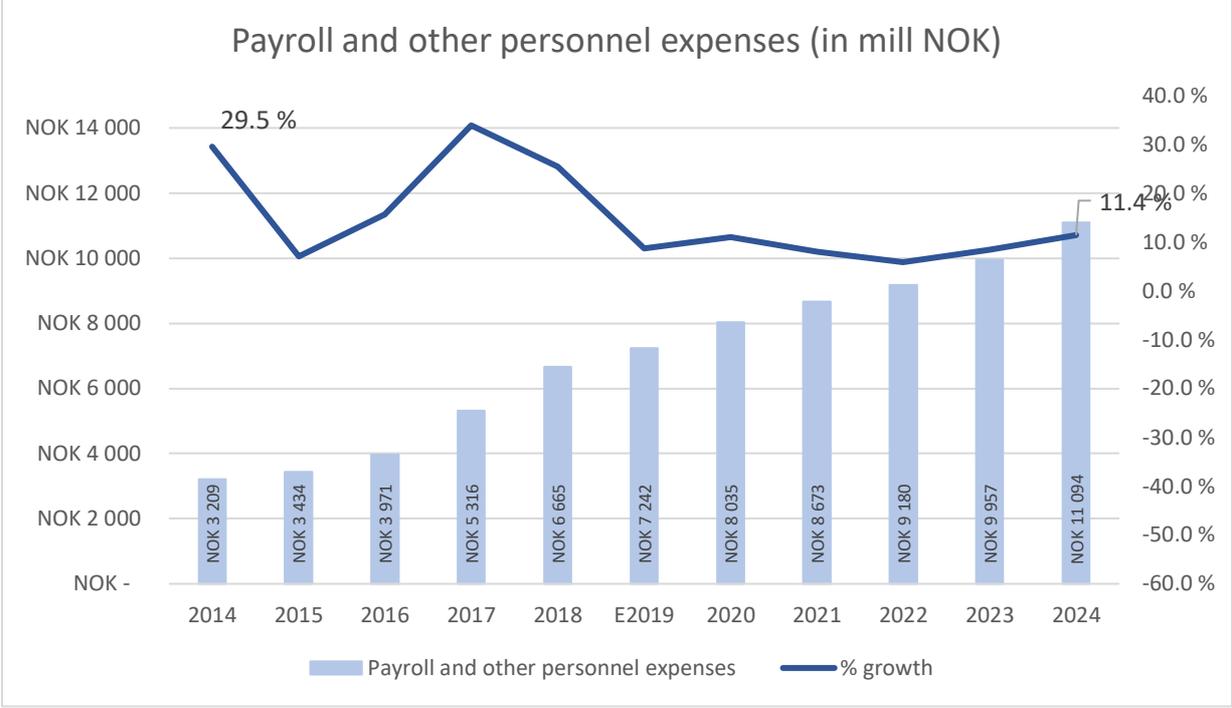


Figure 33: Historical and future development in payroll and other personnel expenses. Own creation.

Depreciation and amortization

Depreciations and amortization on tangible assets we estimate will grow in line with the deliveries of new aircrafts. As head of IR in Norwegian said, new airlines are usually prepaid with 20% the 12-24 months before delivery of the aircraft and the remaining 80% is paid at delivery. We have therefore assumed that they pay 10% for the deliveries each year for the next two years. This sum will be subtracted from the amount that's being paid in the respective year for the aircraft at delivery. We assume that the aircraft deliveries are depreciated over 25 years and with an equal amount each year. As we don't know when former depreciations end, we have assumed that the amount in 2018 will sustain for the forecasted period.

Depreciations and amortizations (in mill NOK)														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
Depreciations and amortization	NOK	1 668	NOK	2 170	NOK	2 672	NOK	3 174	NOK	3 677	NOK	4 179	NOK	4 681

Table 35: Forecasted depreciations and amortizations. Own creation.

At the time being when Norwegian made the largest aircraft order ever made in Europe it is to believe that the price, they bought the planes for is very attractive. Media speculated the discount to be upwards of 50%.<sup>124</sup> It's known that airlines can achieve large discounts when ordering in bulk, so we assume a discount of 45%. What is to bear in mind is that when buying a plane at a 50% discount, you can in theory sell the plane 8 years after with no loss. In other words, you are flying for free. Below you can see the listing price, and then the price with a 45% discount.

Listing price		With discount (45%)	
Airbus 321LR Neo	\$ 129 500,00	Airbus 321LR Neo	\$ 71 225,00
Boeing 787-8/9	\$ 260 300,00	Boeing 787-8/9	\$ 143 165,00
Boeing 737-Max 800	\$ 117 100,00	Boeing 737-Max 800	\$ 64 405,00
Boeig 737-800	\$ 102 200,00	Boeig 737-800	\$ 56 210,00

Table 36: Listing price and with assumed acquisition price after discount on aircrafts. Own creation.

To grasp a better picture of the depreciations and amortizations the estimations is shown in a graph below showing the future development.

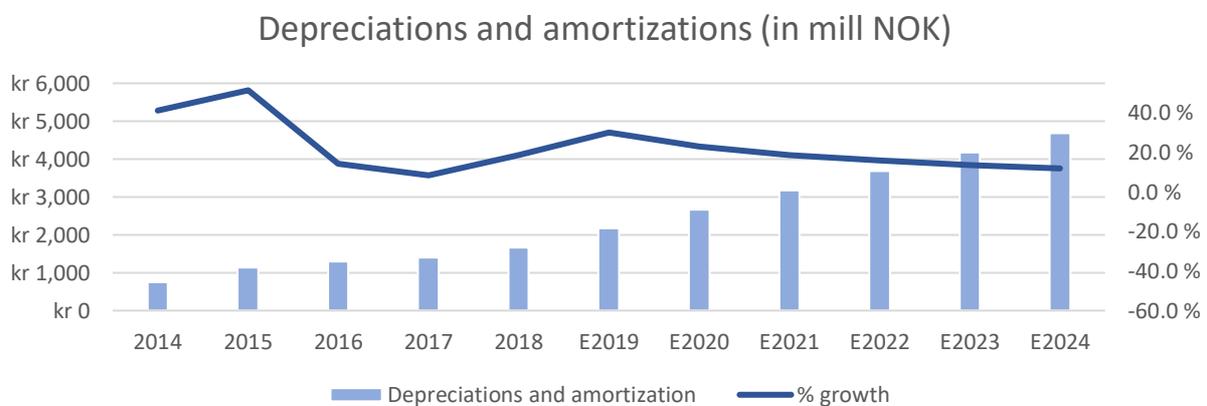


Figure 34: Depreciations and amortizations graph. Own creation.

<sup>124</sup> Eikeland, O. 2012

Other operating expenses

As mentioned in the introduction other aircraft expenses consists of 4% of the total operating cost. This cost item consists of expenses like the operating system, marketing, back office, consultants and other costs that is not directly linked to the operation of the aircraft fleet. As of the historical development from 2014-2018 the average growth in other operating expenses have been 21%. We believe this development will stop and growth will slow down and stabilize. Regarding the cost cutting program #focus2019 we are estimating a future growth in other operating expenses in line with the inflation rate. As activities mentioned above under other operating expenses, we do not assume that other operating expenses will grow in line with the growth in ASK. This is mostly because the change in focus from growth to profitability. Calculations is shown in the table 37.

Other operating expenses (mill NOK)														
Year	2018		E2019		E2020		E2021		E2022		E2023		E2024	
Inflation rate			2 %		2 %		2 %		2 %		2 %		2 %	
Other operating exp	NOK	1 825,90	NOK	1 862,42	NOK	1 899,67	NOK	1 937,66	NOK	1 976,41	NOK	2 015,94	NOK	2 056,26

Table 37: Forecasted other operating expenses. Own creation.

The historical and future development of other operating costs is illustrated in the graph below.

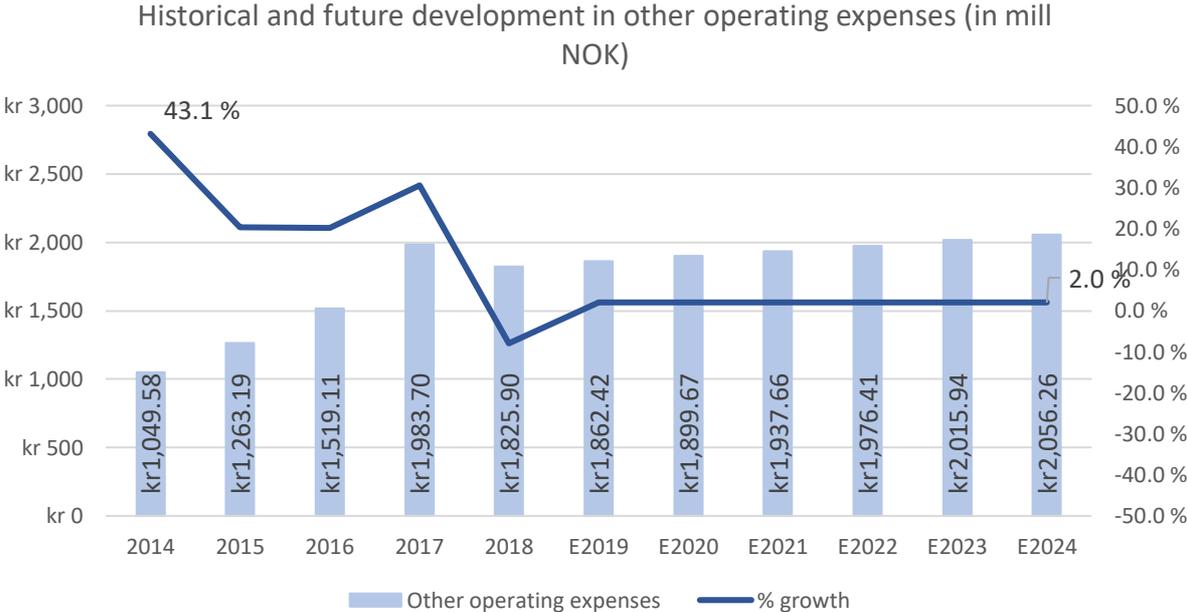
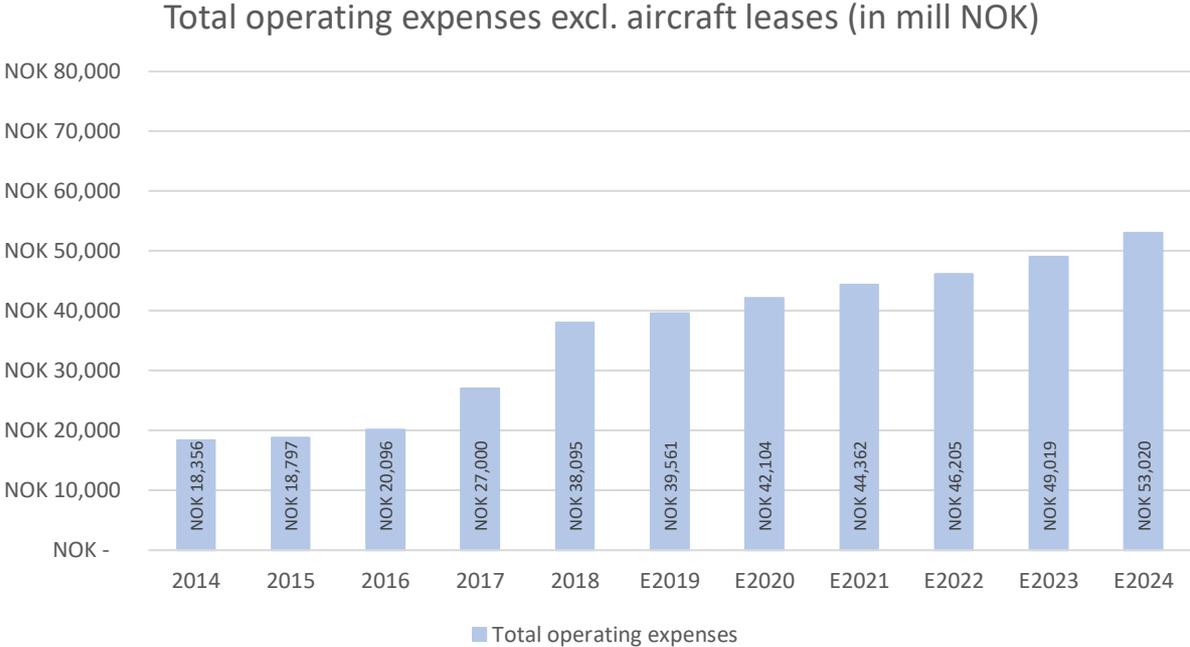


Figure 35: Historical and future development in other operating expenses. Own creation.

Summary of the cost growth forecast

*Summing up, we are forecasting that Operating cost will to a certain level follow the growth in revenue. Due to scale advantages there are some costs that won't grow in line with the increasing fleet. The total operating cost forecast is illustrated in the Figure 36. The line represents the ratio between income and cost, the dashed line is the breakeven line.*



*This forecast picture represents the development in total cost. The compounded annual growth rate from 2014 to 2018 were respectively 15,72% which is a significant cost growth. We are forecasting a compounded annual growth of 5% from 2019 to 2024. We believe that this is a growth they can sustain while at the same time being profitable.*

4.4 Unit cost development

Now that we have forecasted the revenue and cost for the future horizon, we are now ready to calculate the unit cost development, RASK and CASK. These unit costs are used as a metric in the industry and it gives a good indication on the efficiency of airlines.

RASK

As we have forecasted future revenues and cost for the coming years, we are able to break it down into unit revenue and cost. The RASK metric stands for revenue per available seat kilometer and is an estimation used to compare the efficiency of airlines. RASK is calculated by dividing the total revenue by available seat kilometers. As we have forecasted ASK, we are able to get a forecasted value and used this as our main factor. A higher RASK means that the company earns more for each ASK. An increasing ASK means that we predict a more streamlined and more efficient organization.

CASK

The CASK is the unit cost each available seat kilometer. The CASK is calculated by dividing total operational expenses by available seat kilometer. The CASK metric is used for the same purpose as RASK; to estimate the efficiency of airlines. CASK reflects the cost incurred by an airline to fly a single seat one kilometer. Table 36 and Figure 37 shows forecasted RASK and CASK.

		Unit cost					
Year	2018	E2019	E2020	E2021	E2022	E2023	E2024
RASK	0,408	0,422	0,438	0,451	0,465	0,473	0,480
CASK	0,446	0,433	0,423	0,425	0,431	0,434	0,443

Table 38: Unit cost development. Own creation.

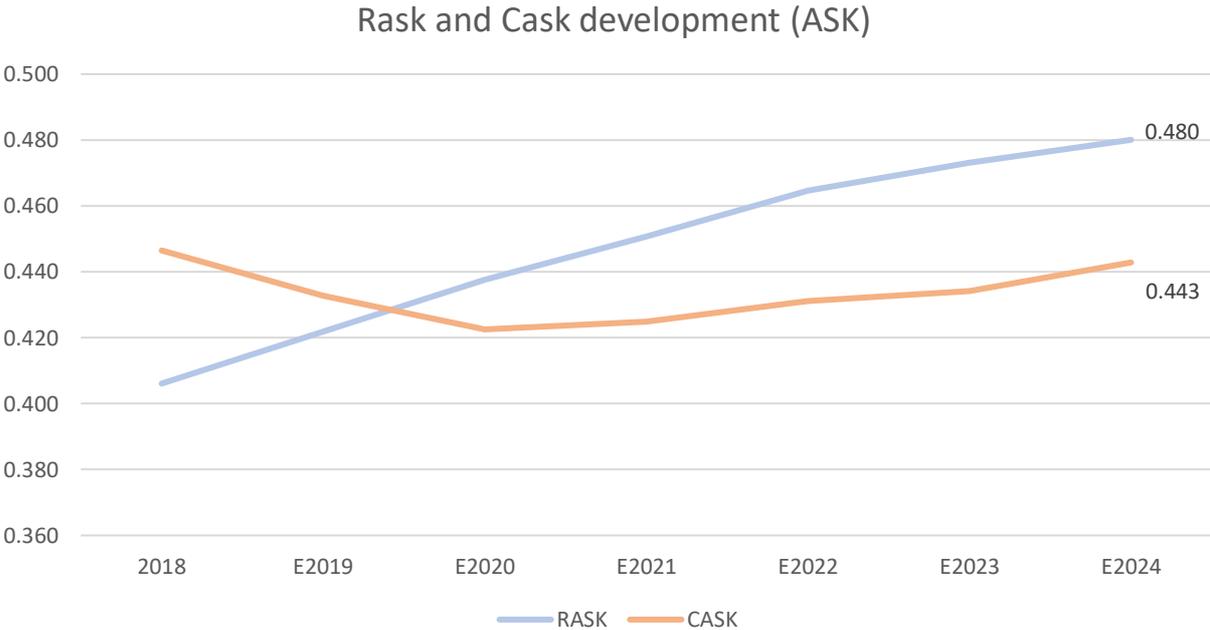


Figure 37: Risk and Cask development. Own creation.

#### 4.5 Interest rates

We have estimated Norwegians cost of debt based on the rates stated in the annual report from Borrowings.<sup>125</sup> The loans shown in Table 37 is Norwegians total net-interest bearing debt. Due to difficulties finding the market value of these loans, we chose to use book value.

Consolidation of debt (in mill NOK)									
	2014		2015		2016		2017		2018
Bond issue	NOK	831	NOK	3 222	NOK	4 154	NOK	4 320	3 583
Credit facility	NOK	2 568	NOK	-	NOK	325	NOK	675	NOK 1 125
Aircraft prepayment financing	NOK	9 877	NOK	1 473	NOK	1 416	NOK	616	NOK 4 142
Aircraft financing	NOK	-	NOK	14 890	NOK	17 580	NOK	20 694	NOK 24 990
Aircraft financial lease liabilities	NOK	8	NOK	-	NOK	-	NOK	-	NOK -
<b>Total long-term debt</b>	<b>NOK</b>	<b>13 284</b>	<b>NOK</b>	<b>19 585</b>	<b>NOK</b>	<b>23 475</b>	<b>NOK</b>	<b>26 305</b>	<b>NOK 33 839</b>
Total (Excl. Capitalized operating leases)	NOK	13 284	NOK	19 585	NOK	23 475	NOK	26 305	NOK 33 839
Capitalized operating leases	NOK	15 439	NOK	35 475	NOK	31 135	NOK	31 590	NOK 32 840
<b>Total (incl. Capitalized operating leases)</b>	<b>NOK</b>	<b>28 723</b>	<b>NOK</b>	<b>55 059</b>	<b>NOK</b>	<b>54 610</b>	<b>NOK</b>	<b>57 894</b>	<b>NOK 66 679</b>

Table 39: Cost of debt estimation. Own creation.

In terms of capitalized operating leases, we found out that using the average interest rate would be the best alternative in this case. As the interest rates Norwegian has achieved is exceptionally low, we discussed adding a risk-premium on the leasing debt. After looking at Q1 2019, where Norwegian reclassified leasing obligations due to the introduction of IFRS 16 mentioned in section 3.1 Account Quality and presented an NPV of leasing obligations of 32.8 billion NOK. This is the same number we reached in section 3.4.2. This led to the conclusion of using the average weighted interest rate of 4,19% throughout the 5-year period from 2014-2018. In the table below you can see the weighted loans and the interest rates.

<sup>125</sup> Norwegian Air Shuttle 2018: Annual report

Weighted consolidation of debt with interest rate (in mill NOK)					
	2014	2015	2016	2017	2018
<b>Weights</b>					
Bond issue	6,3 %	16,4 %	17,7 %	16,4 %	10,6 %
Credit facility	19,3 %	0,0 %	1,4 %	2,6 %	3,3 %
Aircraft prepayment financing	74,4 %	7,5 %	6,0 %	2,3 %	12,2 %
Aircraft financing	0,1 %	76,0 %	74,9 %	78,7 %	73,8 %
<b>Interest rates</b>					
Bond issue	6 %	7 %	6 %	6 %	7 %
Credit facility	4,10 %	0,00 %	2,00 %	2,00 %	2,00 %
Aircraft prepayment financing	3,50 %	4,50 %	4,00 %	5,70 %	6,90 %
Aircraft financing	4,40 %	4,40 %	3,50 %	3,60 %	3,80 %
<b>Average cost of debt</b>	<b>3,78 %</b>	<b>4,75 %</b>	<b>3,93 %</b>	<b>4,07 %</b>	<b>4,41 %</b>

Table 40: Average cost of debt. Own creation.

The average cost of debt is calculated by multiplying the weighted loans with the respective interest rate. We believe that this is a cost of debt rate this is realistic is the cost of debt that will be used in calculations. The debt of rate we calculated could be considered quite low. Jo Erlend Korsvold from SEB confirms that this rate is the actual rate, and that this would lead to a low WACC which we will go into more detailed in section 5.1.

#### 4.6 Marginal tax rate

In regard to the tax rate the nominal tax is 22%, this is a reduction from 2018 where the tax rate was 23%. At the moment there does not seem to be any signals of the marginal corporate tax rate in the future.<sup>126</sup>

#### 4.7 Capitalized operating leases

Forecasted capitalized operating leases will be forecasted in line with the increasing and decreasing number of leased airplanes. With this method we adjusted the future leasing obligations and reached a lower NPV on average in the future. Table 41 shows the future increasing/decreasing of capitalized operating leases.

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<sup>126</sup> Altinn.no 2019

Capitalized operating leases (in mill NOK)							
Year	2018	E2019	E2020	E2021	E2022	E2023	E2024
NPV of leasing obligations	32840 kr	24 095 kr	20 690 kr	17 143 kr	13 447 kr	9 596 kr	6 528

Table 41: Future Capitalized operating leases. Own creation.

Full calculations have been done in section 3.4.2. As we don't know whether Norwegian will lease more planes than estimated we have used the estimated plane deliveries from the 2018 annual report. We assume leasing obligations to decrease due to shifting from leasing to owning aircrafts.

#### Depreciations on capitalized operating leases

These have been forecasted with the NPV of the capitalized operating leases. We assume the interest expense to be 4,19% yearly on the NPV of leasing debt. We then subtracted the implied interest rate from forecasted leasing costs and got the following depreciations as shown in Table 42.

Depreciations on capitalized operating leases (in mill NOK)						
Year	E2019	E2020	E2021	E2022	E2023	E2024
Depreciations	NOK 3 864	NOK 3 405	NOK 3 547	NOK 3 696	NOK 3 851	NOK 3 068

Table 42: Depreciations on capitalized operating leases. Own creation.

## 4.8 Operating working capital

In terms of operating working capital, we have forecasted a future operating working capital which we found to be reasonable. As stated earlier Norwegian is shifting their focus from growth to profitability and expect their ratio to improve towards the industry average of over 1, as calculated in section 3.7.4 Table 17. Table 41 shows forecasted working capital based on these assumptions.

Working capital (in mill NOK)									
	2018	E2019	E2020	E2021	E2022	E2023	E2024		
Total income	kr 40 125	kr 43 334	kr 48 182	kr 51 760	kr 54 569	kr 58 230	kr 63 611		
Current assets relating to operations	kr 7 725	kr 9 534	kr 11 082	kr 12 940	kr 13 642	kr 14 558	kr 15 903		
% of total income	19 %	22 %	23 %	25 %	25 %	25 %	25 %		
Current liabilities relating to operations	kr 12 431	kr 13 434	kr 14 455	kr 16 563	kr 18 554	kr 18 634	kr 19 083		
% of total income	31 %	31 %	30 %	32 %	34 %	32 %	30 %		
Working capital	kr -4 705	kr -3 900	kr -3 373	kr -3 623	kr -4 911	kr -4 076	kr -3 181		
Change in working capital	kr 373	kr 805	kr 527	kr -250	kr -1 288	kr 835	kr 896		
Working capital ratio	0,62	0,71	0,77	0,78	0,74	0,78	0,83		

Table 43: Future operating working capital. Own creation.

Illustration of the change in working capital can be seen in Figure 38.

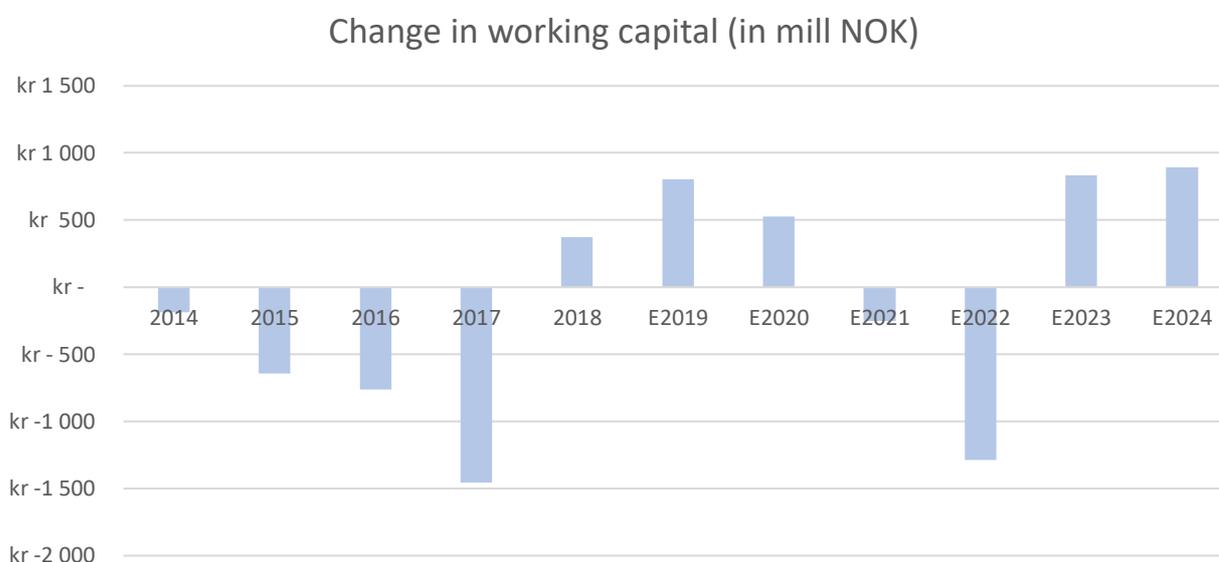


Figure 38: Change in working capital. Own creation.

The increase in working capital we expect to come from retained earnings, higher credit sales and especially a decrease in current liabilities.

#### 4.9 Net interest-bearing debt

Net interest-bearing debt will be forecasted with the aircraft investments and the increase/decrease in leasing obligations. As we don't have enough information regarding the bond issues and credit facility, we assume that these will remain the same over the years. As mentioned under capital expenditure, a payment for the aircrafts is done 12-24 months before deliveries, and the residual sum on 80% is paid at delivery date. This cost is shown under

Aircraft payment financing. Once these deliveries occur, it will be moved from prepayment to aircraft financing. As Norwegian is reducing several aircraft leased it is to be assumed that this cost will decline. Table 42 shows Norwegians total net interest-bearing debt. See section 4.5 for historical net-interest-bearing debt.

Net interest-bearing debt (in mill NOK)									
	kr	2018	E2019	E2020	E2021	E2022	E2023	E2024	
Bondi issue	kr	3 583	kr 3 515	kr 3 448	kr 3 382	kr 3 318	kr 3 255	kr 3 193	
Credit facility	kr	1 125	kr 1 125						
Aircraft prepaymet financing	kr	4 142	kr 4 562	kr 3 435	kr 3 414	kr 2 435	kr 3 490	kr 2 604	
Aircraft financing	kr	24 990	kr 26 238	kr 31 257	kr 30 817	kr 27 818	kr 31 505	kr 32 802	
Aircraft financial lease liabilities	kr	32 840	kr 24 095	kr 20 690	kr 17 143	kr 13 447	kr 9 596	kr 6 528	
<b>Total</b>	<b>kr</b>	<b>66 679</b>	<b>kr 59 534</b>	<b>kr 59 954</b>	<b>kr 55 881</b>	<b>kr 48 143</b>	<b>kr 48 970</b>	<b>kr 46 252</b>	

Table 44: Future net interest-bearing debt. Own creation.

We are assuming an increase in aircraft financing considering that Norwegian do have a lot of planes on order and that they have already postponed some deliveries that was expected in 2019, 2020 and 2021. This just to relief the capital expenditure cost. As we forecast for Norwegian to become a stable growth firm, we expect D/E to decrease due to a decrease in leasing obligations.

#### 4.10 Investments

As Norwegian Air Shuttle is still growing, they are expecting future aircraft deliveries, due to the change in focus from growth to profitability they have postponed aircraft deliveries and sold some of them. Still, there are expected deliveries in the coming years which will impact the company's capital expenditure significantly. In appendix 9.3 you can see the expected deliveries, and in appendix 9.9 we have shown the forecasted capital expenditure. It is important to bear in mind that we are estimating a mean of 45% with an interval of 40-50% in discount on the listing prices of the aircrafts. In the table below we will show the capital expenditure with the growth in fleet.

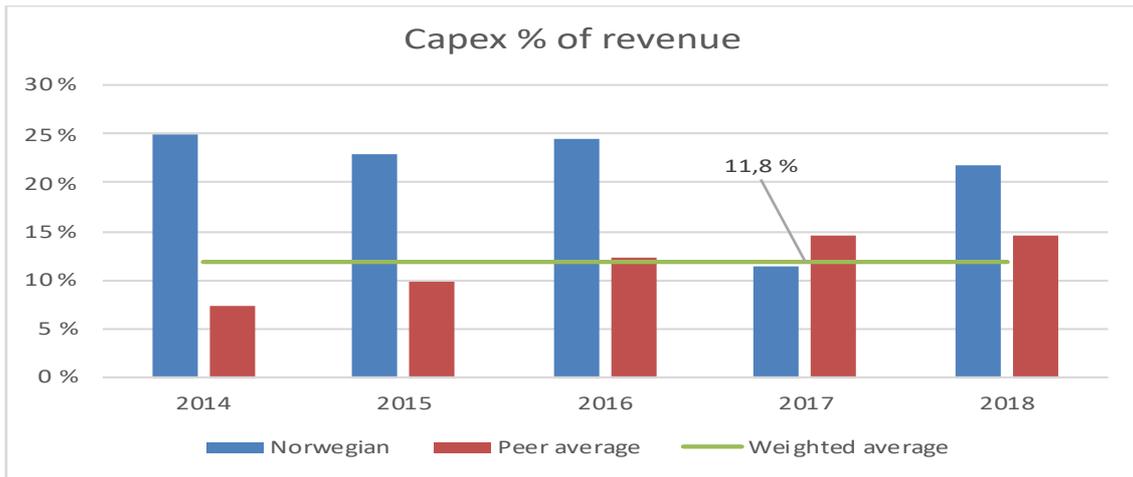


Figure 39: Capex compared to fleet size. Own creation.

Figure 39 shows historical capital expenditure in percentage of revenue for Norwegian and their peers. Given a peer average of 11,8%, we will forecast capex with the same percentage. Given that Norwegian already have had large investments in their fleet, we will conduct a sensitivity analysis in section 5.4 because of this.

Given Norwegians growth phase, it was difficult to forecast future values based on historical performance. Due to this, we decided to not only forecast with industry growth or inflation, but we also had to consider Norwegians fleet renewal and structure. Keeping in mind Norwegians cost-cutting program and profitability focus, we were able to make assumptions based on this which we find reasonable. The information we've gathered and analyzed, will now be used to conduct the valuation of Norwegian.

## 5.0 Valuation

### Fundamental Analysis/DCF

When doing a DCF-valuation (Discounted Cash Flow) one can choose to value the company as a whole with debt included or do a valuation of how much its equity is worth (which is what owning a share of the company represents). The difference between the two is that the present value that is generated in the equity model “..is value of just the equity claims on the firm (...)”<sup>127</sup> and for the firm valuation the present value calculated is the “..value of the entire firm, and reflects the value of all claims on the firm”.<sup>127</sup>

In short the Equity Model considers the “Cash Flows from assets, after debt payments and after making reinvestments needed for future growth”<sup>127</sup> where the discount rate that’s being used is only “the cost of raising equity financing.”<sup>127</sup> which is usually found by calculating the company’s CAPM.

The Firm Model considers the “Cash Flows from assets, prior to any debt payments but after firm has reinvested to create growth assets”<sup>127</sup> where the discount rate that’s being used is “the cost of raising both debt and equity financing, in proportion to their use”.<sup>127</sup>

The Firm Model considers the “Cash Flows from assets, prior to any debt payments but after firm has reinvested to create growth assets”<sup>127</sup> where the discount rate that’s being used is “the cost of raising both debt and equity financing, in proportion to their use”.<sup>127</sup>

As the company’s capital structure might change over the years, the equity model becomes a less viable tool for valuation. For Norwegian, this is likely to be the case. Therefore, we will concentrate on the Firm model as the discount rate being used will be the weighted average cost of capital (WACC) and net debt will be deducted to find the value of the company’s equity.

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<sup>127</sup> Damodaran (2002)

To get the Firm Value we have to calculate the net present value of free cash flows which is calculated as follows.<sup>128</sup>

$$FCFF = EBIT \times (1 - \text{Tax Rate } (T_c)) + \text{Depreciation and Amortization} \\ - \text{Change in Working Capital} - \text{Capital Expenditure}$$

The Firm Value is calculated:

$$\sum_{t=1}^T \frac{FCFF}{(1 - WACC)^t} + \frac{V_T}{(1 - WACC)^T}$$

Where  $V_T = \frac{FCFF_{t+1}}{WACC - g}$

To find the Equity value we follow this equation:

*Value of Equity*

$$= \text{Firm Value} + \text{Excess Cash} - \text{Outstanding debt} + \text{Value Investment}$$

In fundamental analysis there's a lot of different models, but the reality of these models is that they are replicas of the equity model and the firm value model.<sup>129</sup>

### **Comparative analysis**

Analyses that uses multiples to determine equity value are more widely used as it is a simple valuation method that can be used to compare market share prices of companies. By calculating multiples of different companies in the same sector and growth stage (peer groups) one could get a good idea of how much a company is worth.

The most common ratio that's being used is the Earning Multiplier Model (P/E ratio). It is also referred to as the Multiplier model or the price to earnings ratio. The model is more pragmatic, and its models more commonly used by securities analysts, compared to dividends model.<sup>130</sup> The model is more pragmatic, and its models more commonly used by securities analysts, compared to dividends model.<sup>131</sup>

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<sup>128</sup> Bodie, Z. Kan, A. Marcus, J. (2009)

<sup>129</sup> Damodaran 2012

<sup>130</sup> Ahmed, S. Wafia, H, Hassana, Mabrouka, A. (2015)

<sup>131</sup> Ahmed, S. Wafia, H, Hassana, Mabrouka, A. (2015)

The price in an efficient market represents the net present value (NPV) of all future cash flows. A company with a high P/E ratio usually is a company in growth where investors believe that even though earnings aren't that high today, they believe it will increase in the future. In the tech business (Amazon, Tesla, etc.) it is normal for companies to be priced at a very high P/E due to the expected future cash flow. A low P/E ratio usually reflects a company in a stage with lower growth, usually established and more value companies. One of the big problems that occur when using P/E to compare, is that it doesn't consider capital structure. Therefore, a high leveraged company that generates a lot of earnings might have the same P/E as a company with the same earnings, even though the capital structure of company no. 2 might be less risky. Faerber (2008) believes that it basically tells us that the stock value is just the equivalent of several times as earnings. Which means that stock price is just a multiple of earnings and can be expressed as follows:

$$V_0 = EPS_1 * \frac{P}{E} ratio$$

Where:

$$P/E \text{ ratio} = \frac{\text{Market price of the stock}}{\text{Earnings per share (EPS)}}$$

$EPS_1 = \text{Expected earnings per share for the next period}$

One assumption for this model is that the company that is being valued must have positive earnings, or else the model will not be useful. As Norwegian in 2017 and 2018 had a negative result, we will assess other models.

Next multiple we'll go through is the P/S multiple. This multiple takes into account a company's revenue compared to stock price. It doesn't take into account costs and therefore how well the company is doing compared to other companies in terms of profit margins doesn't show. Still, it can give us an indication of how the market prices the stock price compared to other peers and their sales.

$$P/S \text{ ratio} = \frac{\text{Market price of the stock}}{\text{Sales per stock}}$$

As the P/E model doesn't consider the company's capital structure, the EV/EBITDA model is regularly used. That's because this multiple looks at earnings from the total capital of the firm and is therefore unbiased as to how the capital structure in the firm is. As airlines normally finance portions of their business through operating leases, we've chose to use EBITDAR

which excluded leasing cost due to it being a part of the airline's financial activity, not operational. We've also used normalized EBITDA and excluded unusual expenses/income. This way the ratio is more comparable to its peers.

$$\text{Enterprise Multiple} = \frac{EV}{EBITDAR}$$

Where:

EV (Enterprise Value) = *Market cap + value of debt + minority interest + preferred shares – cash and cash equivalents*

EBITDAR = *Earnings Before Interest, Tax, Depreciation, Amortization and Rentals*

The last model that is often used is the P/B. This multiple tells us how the company is priced based on the book value of the firm. The multiple is often used as to figure out whether a company's assets are under-/overpriced and if it is being reflected in the share price.

$$\text{P/B ratio} = \frac{\text{Share price}}{\text{Book value of equity}}$$

This ratio is normally better for companies with a liquid and highly intensive capital balance sheet like real estate companies or banks. Normally these companies will have a P/B of close to 1. Tech companies with a lot of intangible assets will normally have a higher P/B ratio. Whether or not the company is over-/underpriced depends on the sector and the comparable companies.

### **Option-based valuation model**

The option-based valuation model considers the possible opportunities that lies ahead for the company. This could be expansions, mergers, acquisitions or other potential future investments. The main point with this method is that flexibility is being valued as a value and has worth. Normally this type of valuation method is good to use for a company in a growth phase, expansion phase or if big investments lies ahead. This method could be used for Norwegian as a company due to the large current and future investments in aircrafts and the commitment to grow the long-haul operations.

## Summary and choice of valuation method

Going through the different ways of evaluating companies it seems like fundamental analysis would be the most thorough and precise way of evaluating Norwegian worth. To find the Enterprise Value (EV) we've chosen to use the nominal cash flow after tax to the total capital, to then discount the future cash flow with a weighted average cost of capital (WACC). Then we'll deduct net debt and leasing obligations to find the real value of the company's equity. As Norwegian has a complicated capital structure and is currently experiencing negative earnings the multiple P/E is not ideal to use. Therefore, we will focus on the Enterprise Multiple which considers total capital and compare it to its peers. We will also estimate P/S, P/B and EV/Invested Capital. The latter multiple is an addition to the EV/EBITDAR and takes the market value vs book value of equity into account. At last we will deduct a scenario analysis/sensitivity analysis which will give us different values in the fundamental analysis and weigh these scenarios accordingly to how likely they are to happen (our conclusion).

### 5.1 Weighted-average cost of capital

#### Estimating systematic risk

The required rate of return must be adjusted for systematic risk  $\beta_e$ . The stocks return is driven by the company's beta, which indicates the relative risk for the company in relation to the return of the market. Therefore, we start with an estimation of beta. The market model is:

$$E(R_i) = R_f + \beta_i(R_m - R_f) + \varepsilon$$

In terms of the model above,  $R_i$  is the stock's return,  $R_m$  is the market's return,  $\beta_i$  is the estimated equity beta,  $R_f$  is the risk-free rate and  $\varepsilon$  represents the noise in the regression or the firm-specific risk or non-specific risk.

When estimating Beta there are three criterion that should be fulfilled. The first is that the measurement period should contain at least 60 data points, or a 5-year period. The second criteria are that it should be based on monthly returns, not daily or weekly. By using high frequency data there is a chance that some illiquid stocks are not even being traded some days and will disturb the data. One other problem might also be the bid-ask bounce where the stock

bounce between the ask and bid price. The third and last criteria is that the company's stock return should be regressed against a market index or a well-diversified portfolio.<sup>132</sup>

Regarding the choice of index used to represent the market it is recommended that it is used well diversified indexes such as S&P or Oslo Stock Exchange. However, Koller et al discourages the use of local indexes as most indexes are heavily weighted in few industries or in some case companies.<sup>133</sup> As we have used Oslo Stock Exchange it is important to bear in mind that a large part consists of oil companies. So, we have included the Axgal index which is the New York Stock Exchange Arca global airline index to have something to compare the results with.

The table below shows the regression against the indexes. The measurement period is 5-years and the frequency are monthly.

	NAS	Axgal	Down Jones	Osebx
<b>Covariance</b>	0,10 %	0,18 %	0,04 %	
<b>Variance</b>	2,40 %	0,38 %	0,12 %	0,10 %
<b>Standard de</b>	15,5 %	6,2 %	3,4 %	3,2 %
<b>Beta OSEBX</b>	1,03	0,48	0,34	
<b>Adj. Blume</b>	1,020	0,648	0,555	
<b>R-Square</b>	4,43 %	3,59 %	0,56 %	

Table 45: Raw beta results. Own creation.

The results above show a significant difference between the indexes. We find Oslo Stock Exchange to be the most precise one, the beta obtained from the other indexes is much lower.

According to Koller et al every stock will over time move against market premium growth.<sup>134</sup> Therefore, the beta is in the table above adjusted by the Blume-adjustment, which means that you multiply the Beta with 2/3 and then add 1/3 afterwards.

$$\text{Adjusted } \beta \text{ for blume} = \text{Raw beta} * 0,67 + 0,33$$

This gives us an estimated beta adjusted for blume of  $\beta = 1,03 * 0,67 + 0,33 = 1,020$ .

<sup>132</sup> Koller et al. 2010: p. 250

<sup>133</sup> Koller et al. 2010. P.253

<sup>134</sup> Koller et al. 2010: p.257

What's important to bear in mind is the fact that the R-squared in the model is 4,43% and lower. Which means that 95,7% of the explanatory power comes from the residual and has to be given little to no weight. This basically means that almost all the risk is systematic risk.

### **Cost of equity**

As shown below we have used our findings to calculate the cost of equity in the CAPM model. A risk-free rate of 1,43% which is the 5-year bond rate from Norges Bank, a market risk premium of 5% and a beta of 1,02 gives us a cost of equity of 6,50 %. We find this to be a reasonable compared to the industry, but as the  $R^2$  of our regression is very low, we choose to do a sensitivity analysis on WACC.

$$E(R_i) = 1,4\% + 1,02 * (6,4\% - 1,4\%) = \mathbf{6,5\%}$$

### **Cost of debt**

We have calculated a cost of debt of 4,19% which we have used in our WACC calculations. To see calculations, see section 4.5 Interest Rates.

### **WACC**

$$WACC = \frac{E}{E + D} * R_e + \frac{D}{E + D} * R_d * (1 - Tax)$$

$$\mathbf{WACC} = (1,9\% * 6,5\%) + (98,1\% * 4,19\%) * (1 - 22\%) = \mathbf{3,33\%}$$

By multiplying the percentage of net-interest-bearing debt with cost of debt and equity with the CAPM, we find Norwegian's WACC. We see that the WACC calculated is quite low and is due to the company largely being funded by low-cost debt, with equity only being a small part of it. According to Damodaran the average WACC for the airline industry is 6,10% and cost of equity is 8.77%. This, together with other ratios calculated in section 3.7, tells us the equity holders' risk is very high.

<b>Target Capital Structure</b>	
Debt to Total Capitalization	98,1%
Equity to Total Capitalization	1,9%
<b>Cost of Equity</b>	
Risk-free rate	1,4%
Market risk Premium	5,0%
Levered Beta	1,02
Size Premium	0,0%
<b>Cost of Equity</b>	<b>6,5%</b>
<b>Cost of Debt</b>	
Cost of Debt	4,2%
Corporate tax rate	22,0%
<b>After Tax Cost of Debt</b>	<b>3,3%</b>
<b>WACC</b>	<b>3,3%</b>

Table 46: WACC calculations. Own creation.

## 5.2 Credit rating

Previously in section 3.7.3 we've calculated different ratios to get a better view of Norwegians financial situation, along with comparable ratios for its peers Ryanair, WizzAir, EasyJet and SAS. By using these ratios we'll be able to determine the credit and bankruptcy risk Norwegian is facing. In appendix 9.18 you can clearly see that Norwegian's situation has changed for the worse over a 2-year period. Given a weighted average of yearly bankruptcy risk of 76% in 2018. The risk is extremely high and provides us with information to why we have a large spread in the results in our valuation.

## 5.3 Enterprise Discounted Cash Flow

After carefully projecting Norwegian's future revenue, costs and investments we've put these estimates into our DCF-model which uses the WACC we found in section 5.1 as a discount factor. Normally one would choose to predict the next 5 years, but as a lot of Norwegian's investments were pushed out to 2024 and would create an unrealistic terminal value, we thought it to be reasonable to use 2025 as our terminal year with a forecasted terminal capex. Year 2025 was forecasted by multiplying 2024 with the constant global growth of 2,5%. The only exception was Capex, which was forecasted in section 4.10.

Historical period	Projected period													
	2019E		2020E		2021E		2022E		2023E		2024E		Terminal value	
Net sales	NOK	43 334	NOK	48 182	NOK	51 760	NOK	54 569	NOK	58 230	NOK	63 611	NOK	65 201
OPEX	NOK	28 286	NOK	29 497	NOK	30 577	NOK	31 372	NOK	32 868	NOK	35 188	NOK	36 068
Administrative and other expenses	NOK	11 275	NOK	12 607	NOK	13 784	NOK	14 833	NOK	16 152	NOK	17 832	NOK	18 277
Unusual income/expense	-NOK	500												
<b>Total costs excluding leases</b>	<b>NOK</b>	<b>39 561</b>	<b>NOK</b>	<b>42 104</b>	<b>NOK</b>	<b>44 362</b>	<b>NOK</b>	<b>46 205</b>	<b>NOK</b>	<b>49 019</b>	<b>NOK</b>	<b>53 020</b>	<b>NOK</b>	<b>54 345</b>
<b>EBITDAR</b>		<b>3 773</b>		<b>6 078</b>		<b>7 398</b>		<b>8 364</b>		<b>9 211</b>		<b>10 591</b>		<b>10 856</b>
Leasing/Depreciations from Capitalized operating leases	-NOK	3 864	-NOK	3 405	-NOK	3 547	-NOK	3 696	-NOK	3 851	-NOK	3 068	-NOK	3 145
<b>EBITDA</b>		<b>-91</b>		<b>2 674</b>		<b>3 851</b>		<b>4 668</b>		<b>5 360</b>		<b>7 523</b>		<b>7 711</b>
Depreciation/amortization incl. Capitalized operating leases	-NOK	2 170	-NOK	2 672	-NOK	3 174	-NOK	3 677	-NOK	4 179	-NOK	4 681	-NOK	4 798
<b>EBIT</b>		<b>-2 261</b>		<b>1</b>		<b>677</b>		<b>991</b>		<b>1 182</b>		<b>2 842</b>		<b>2 913</b>
Tax (22%)		497		0		-149		-218		-260		-625		-641
<b>NOPAT</b>		<b>-1 763</b>		<b>1</b>		<b>528</b>		<b>773</b>		<b>922</b>		<b>2 217</b>		<b>2 272</b>
Depreciation/amortization		2 170		2 672		3 174		3 677		4 179		4 681		4 798
Capex		-5 810		-9 701		-9 241		-5 263		-10 005		-10 419		-7 677
Depreciation on operating leases		3 864		3 405		3 547		3 696		3 851		3 068		3 145
Increase/decrease in leasing obligations		-3 355		-2 952		-2 598		-2 286		-2 012		-1 771		-1 815
Net Working Capital		-3 900		-3 373		-3 623		-4 911		-4 076		-3 181		-3 260
Increase/Decrease in NWC		805		527		-250		-1 288		835		896		918
<b>Unlevered Free Cash Flow</b>		<b>1 011</b>		<b>-1 198</b>		<b>857</b>		<b>6 457</b>		<b>123</b>		<b>422</b>		<b>3 435</b>
WACC		3,3%		3,3%		3,3%		3,3%		3,3%		3,3%		6,1%
Discount Period		1,0		2,0		3,0		4,0		5,0		6,0		7,0
Discount Factor		0,97		0,94		0,91		0,88		0,85		0,82		0,66
<b>Present value of free cash flow</b>		<b>978</b>		<b>-1 122</b>		<b>777</b>		<b>5 664</b>		<b>105</b>		<b>347</b>		<b>2 269</b>

Table 47: Projected cashflow 2019-2024. Own creation.

Given that Norwegian reduces capital expenditure as predicted, we see that it gives us a terminal unlevered free cash flow of 3,435 billion NOK.

As previously mentioned, we've chosen to use the FFCF formula which assumes a perpetuity growth rate discount period. We've decided to use the global growth rate of 2,5%, but as we find it unrealistic for Norwegian to have a WACC of 3,3% in perpetuity, we assume that Norwegian will eventually reach the same capital structure as its peers. According to Damodaran the industry WACC in 2018 was 6,1%.<sup>135</sup> Therefore, we will use the industry WACC to calculate the terminal value, and our calculated WACC of 3,3% for the years up to the terminal value, and the present value calculation of the terminal value. We do this as we expect Norwegian to reach a higher equity ratio, and therefore a higher cost of capital in perpetuity. As shown below we will calculate terminal value with the industry WACC of 6,1% and then present value with Norwegians calculated WACC of 3,3%. Due to the uncertainty around future WACC estimates, we will conduct a sensitivity analysis on Norwegians WACC in section 5.4.

Putting our values into the FCFE equation gives us:

<sup>135</sup> Damodaran (2019) *Cost of capital*

$$\sum_{t=1}^T \frac{FCFF_{2019-2024}}{(1-0,033)^t} + \frac{3\,435 \cdot (1+0,025)}{0,061-0,025} \cdot \frac{1}{(1-0,033)^7} = 81\,675$$

The terminal value was calculated to be 97 799 billion NOK as seen in Table 48. By discounting this with the WACC with 7 years from 2025 to 2018, we got an NPV of 81 675. By subtracting debt and adding cash, we found the Enterprise Value to be 88 423 billion NOK as shown in Table 49.

<b>Terminal Value</b>	
Terminal Year Free Cash Flow	3 435
Perpetuity Growth Rate	2,5%
Terminal Year EBITDAR	10 591
Terminal Value	97 799
<i>Implied Exit Multiple</i>	9,4x
Discount Period	5,5
Discount Factor	0,8
<b>Present Value of Terminal Value</b>	<b>81 675</b>
<i>% of Enterprise Value</i>	92 %

Table 48: Estimated terminal value from cashflow. Own creation.

<b>DCF-valuation</b>	
<b>Enterprise value ("EV")</b>	<b>88 423</b>
Less: Total interest-bearing debt	87 120
Plus: Cash and Cash Equi.	1 922
Net debt (negative number equals net cash positi	85 199
Equity value ("market cap")	3 224
Outstanding shares	45,437
<b>Price per share</b>	<b>70,96</b>

Table 49: Estimated share price from cashflow. Own creation.

By subtracting net debt and adding cash and cash equivalents, we arrived at a market value of equity of 3,224 billion NOK. To find price per share, we had to divide this by the total number of shares of 45,437 million. This resulted in a value of 70,96 NOK per share.

Given that the share price was registered at 173,50 NOK per share the 31<sup>st</sup> of December 2018, it indicates a downside of 102,5 NOK or approximately 41%.

As we can see from our forecasted figures, there is a risk of liquidity issues in 2019 due to negative forecasted EBIT. Although this is the case, we believe the discounted cash flow to be

positive, due to delayed capital expenditures. This might ease up on the risk that equity holders have in terms of dilution as we believe a private placement won't be necessary.

As we've previously mentioned, the WACC, future Capex and fuel prices are all factors that have a big influence on the EV calculated. Therefore, we'll conduct a sensitivity analysis in section 5.4 to show the potential upside and downside as we change these factors.

***Addition:***

***As we went on with the analysis, we noticed that we had a different interest-bearing debt in the valuation formula and conducted the analysis with wrong debt, non-interest-bearing debt included. Due to this, we received a lower share price from the analysis than what was the reality. Real share price was supposed to be:***

<b>DCF-valuation</b>	
<b>Enterprise value ("EV")</b>	<b>88 423</b>
Less: Total interest-bearing debt	68 982
Plus: Financial assets	5 682
Plus: Cash and Cash Equi.	1 922
Net debt (negative number equals net cash position)	61 378
Equity value ("market cap")	27 045
Outstanding shares	45,437
<b>Price per share</b>	<b>595,21</b>

***Financial debt and assets can be found in section 3.5.2.***

***As we were unable to conduct the sensitivity analysis again due to little time, we conducted the analysis as per usual given the share price of 70,96 NOK. Although, this would give us a different case, it still would've shown the volatility of Norwegians share price when adjusting estimates. Conclusion will be changed due to this.***

5.4 Sensitivity analysis

The obtained share price from the cash flow is a result of a numerous of qualified assumptions. The model we have used consists of carefully forecasting both income and expenses. In this section we will forecast the value drivers we found to be the most sensitive to Norwegian. We will later in section 6.0 construct two different scenario outcomes.

In our cash flow model, we found the weighted average cost of capital and capital expenditure to be to critical drivers. However, we found this difficult to estimate due to the high D/E ratio and the future deliveries of aircrafts that is on order. The change in WACC and CAPEX in the terminal period impacted the share price significantly and reacted with either a drop or an increase. Below you will find a table with the sensitivity analysis.

WACC - Capex	Sensitivity analysis w/WACC and CAPEX						
	6699	7025	7351	7677	8003	8329	8655
4,60 %	2232	1778	1647	1355	1062	770	477
5,10 %	1471	1104	998	762	526	290	54
5,60 %	955	648	559	361	163	-35	-233
6,10 %	582	318	241	71	-99	-270	-440
6,60 %	301	69	1	-148	-298	-448	-597
7,10 %	81	-126	-186	-320	-453	-587	-720
7,60 %	-96	-283	-337	-458	-578	-698	-819

Table 51: Sensitivity analysis of WACC and CAPEX. Own creation

When conducting the sensitivity analysis on WACC vs Capex, we could see huge differences in share price. Norwegian’s WACC was originally calculated to be 3,3%, but due to eventually becoming a stable growth firm, we expect the WACC to be around 5-6%. We can see that by increasing the WACC by 0,5% to 6,6% without changing Capex the share price would be negative and indicate the company going bankrupt. On the other hand, if WACC were to decrease 0,5% it would indicate an upside of 108% from 173,5 to 361 NOK per share.

Capex was forecasted to be 11,8% of total revenue in the terminal year, the same as the average for Norwegians peer group. If Norwegian were to increase capex investments to 12,8% of revenue or in other words increase by 326 million to 8003 million, it would result in a share price of -99, therefore bankrupt. If they were to decrease capex by 1%, staying at 10,8% of total revenue, it would mean a share price of 241 NOK, an upside of 39%.

This goes to show that due to Norwegians highly geared business, small changes could affect the company’s equity value tremendously.

The last sensitivity analysis we chose to do on fuel cost as it’s the highest cost Norwegian has, and is crucial for operations. When doing the sensitivity analysis, we used an increase and decrease in the jet fuel price of +/- 1%.

% change in jet fue Share price	
-4	365
-3 %	293
-2 %	219
-1 %	145
0 %	71
1 %	-3
2 %	-79
3 %	-154
4 %	-231

Table 52: Sensitivity analysis of jet fuel price. Own creation.

From Table 52 we see that the jet fuel price impacts the share price heavily as well. Oil prices and jet fuel prices are very hard to estimate as mentioned in section 4.0, and deviations will occur. An increase in fuel prices of 1%, everything else constant would mean the share to be valued at -3 NOK, or in other words worthless. A decrease in 1% would increase the share price by 100% from 71 to 145 but would still be overvalued by 18% according to the share price on 31.12.2018.

We will now look at multiple valuation, to see if the share price we've calculated can be justified.

## 5.5 Multiple valuation

As mentioned earlier multiples are used to determine equity value are more widely used as it is a simple valuation method that can be used to compare market share prices of companies. By calculating multiples of different companies in the same sector and growth stage (peer groups) one could get a good idea of how much a company is worth. Below you can see the multiple valuation.

### Price-to-sales ratio

Price to sales ratio					
P/S	2014	2015	2016	2017	2018
NORWEGIAN AIR SHUTTLE ASA	0,50	0,51	0,39	0,20	0,20
Ryanair	2,08	2,54	2,43	3,17	2,26
Wizz Air	0,69	0,84	0,66	1,51	1,12
Easy Jet	1,28	1,48	0,86	0,96	0,88
SAS AB	0,10	0,14	0,13	0,24	0,18
<b>Average peer group</b>	<b>1,04</b>	<b>1,25</b>	<b>1,02</b>	<b>1,47</b>	<b>1,11</b>

Table 53: Price-to-sales ratio. Own creation.

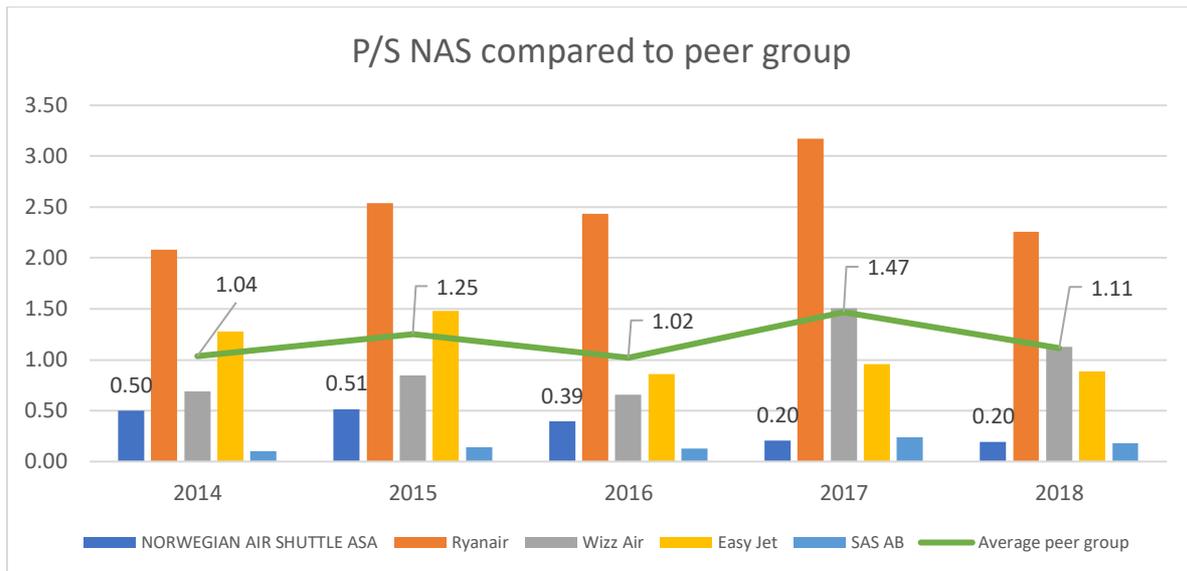


Figure 41: Price-to-sales graph. Own creation.

From the P/S calculation above we can see that it seems like Norwegian is priced a lot lower than its competitors. This is a sign that either Norwegian is underpriced, or that the company is not able to generate the same margins as its peers. As we know from our profit analysis, it makes sense that Norwegian is priced a lot lower than its peers on this multiple as Norwegian has a high revenue, but low profits. Ryanair on the other hand has the highest multiple average of 2.5 and generates profits more effectively from its turnover.

### Price-to-book ratio

Price to book ratio					
P/B	2014	2015	2016	2017	2018
NORWEGIAN AIR SHUTTLE ASA	4,61	3,90	2,53	3,00	4,63
Ryanair	3,19	3,56	4,42	4,77	3,62
Wizz Air	4,35	2,25	1,37	2,49	1,76
Easy Jet	2,67	3,09	1,47	1,73	1,60
SAS AB	0,78	0,87	0,86	1,25	1,10
<b>Average peer group</b>	<b>2,75</b>	<b>2,44</b>	<b>2,03</b>	<b>2,56</b>	<b>2,02</b>

Table 54: Price-to-book ratio. Own creation.

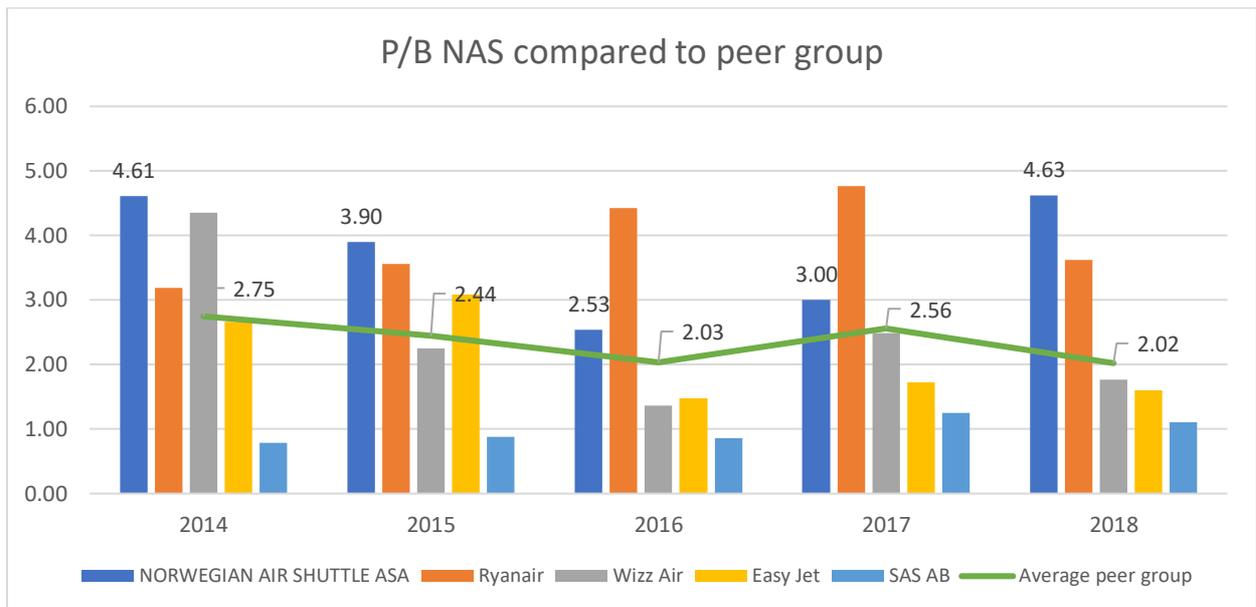


Figure 42: Price-to-book ratio. Own creation.

As mentioned in the introduction to valuation methods, P/B is best used on companies with a highly intensive capital balance sheet. As airlines use leasing as a way of financing, it can easily mislead the worth that is in the company's asset. We know that Norwegian is a highly leveraged company and most of its asset is funded by debt/leasing. This pushes the P/B higher as investors believe that there's more value in the balance sheet than what shows.

### Enterprise-Value to EBITDAR ratio

EV/EBITDAR					
EV/EBITDAR	2014	2015	2016	2017	2018
NORWEGIAN AIR SHUTTLE ASA	36,95	19,83	12,22	19,06	43,84
Ryanair	9,65	10,88	10,49	11,94	11,13
Wizz Air	6,94	6,55	6,16	7,06	6,38
Easy Jet	10,78	10,79	9,15	11,57	8,42
SAS AB	6,90	4,75	5,32	4,74	4,35
<b>Average peer group</b>	<b>8,57</b>	<b>8,24</b>	<b>7,78</b>	<b>8,83</b>	<b>7,57</b>

Table 55: Enterprise-Value to EBITDAR ratio. Own creation.

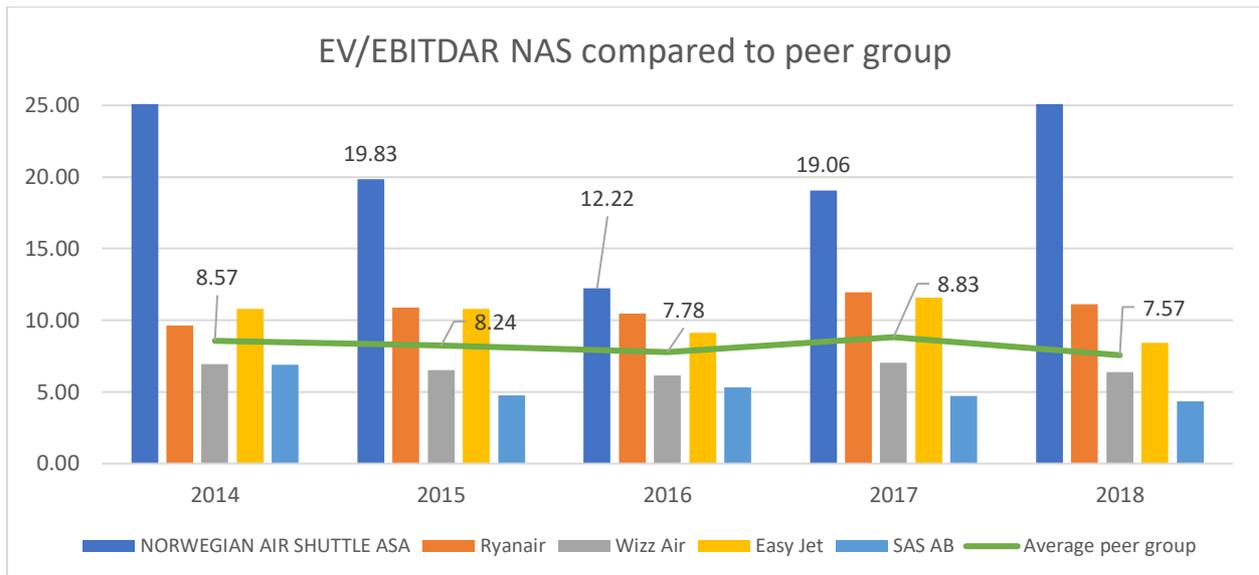


Figure 43: Enterprise-value to EBITDAR graph. Own creation.

When first using the EBITDA/EV multiple we noticed that Norwegian had extremely high multiples. As we knew that it's a highly leveraged company with high leasing costs, the more accurate comparisons would be to exclude leasing costs. We also used the normalized EBITDAR to make sure that we were comparing apples to apples.

Peer average throughout the 5-year period remained stable at 8.2. Norwegian on the other hand had an average of 26.4 and even as high as 43.8 in 2018. Due to the process Norwegian has been through these numbers will be hard to evaluate, as there's costs related to the operations that is supposedly higher than usual resulting in a low EBITDAR compared to its peers. As Norwegian has renewed their fleet and had a massive expansion, it makes sense that they haven't been able to harvest the fruits yet. Therefore, the future multiples will be a more accurate way of figuring out the real value and what they will be able to deliver in the future. This is assessed in section Table 59.

### Enterprise-value to Invested capital ratio

To further investigate how Norwegian is priced compared to its peers based on capital invested, we decided to expand our model and calculate the EV/Invested Capital:

$$\frac{EV}{Invest\ Capital} = \frac{Market\ value\ of\ equity + reclassified\ debt - cash}{Book\ value\ of\ equity + reclassified\ debt - cash}$$

EV/Invested Capital						
EV/Invested Capital	2014	2015	2016	2017	2018	
NORWEGIAN AIR SHUTTLE ASA	1,21	1,13	1,09	1,06	1,07	
Ryanair	1,96	1,91	2,21	2,52	2,06	
Wizz Air	1,32	1,28	1,09	1,48	1,29	
Easy Jet	1,93	2,11	1,27	1,41	1,32	
SAS AB	0,96	0,97	0,97	1,07	1,02	
<b>Average peer group</b>	<b>1,54</b>	<b>1,57</b>	<b>1,38</b>	<b>1,62</b>	<b>1,42</b>	

Table 57: Enterprise-value to invested capital ratio. Own creation.

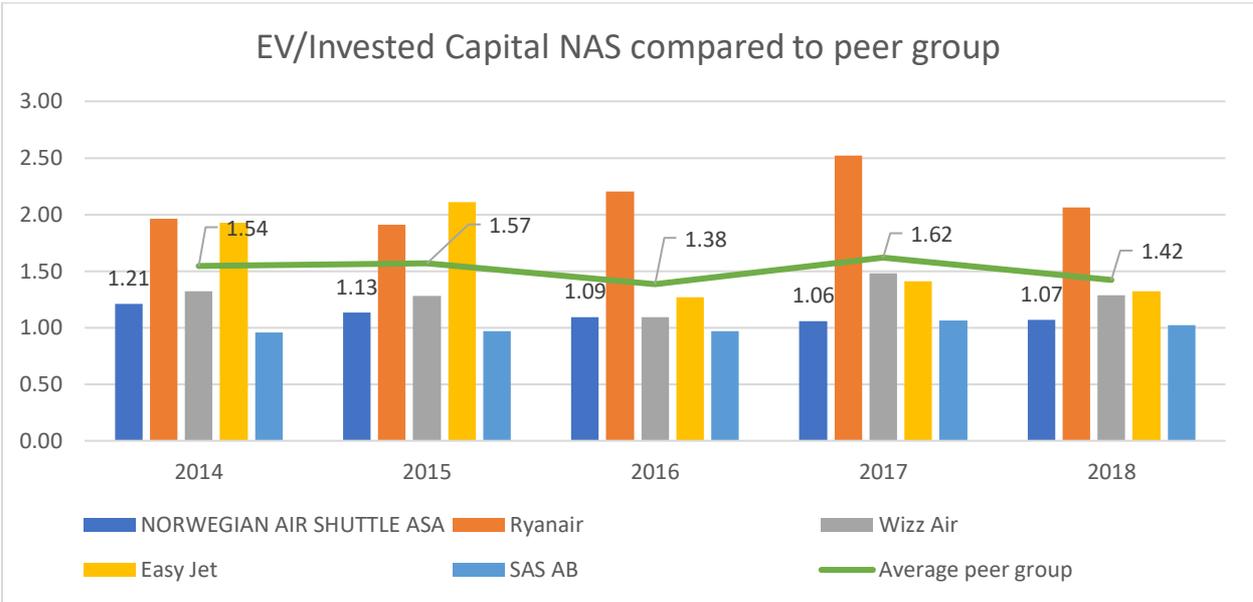


Figure 44: Enterprise-value to invested capital ratio graph. Own creation.

From this graph we can see that peer average is 1.51 throughout the 5-year period, while Norwegian has an average of 1.11. We also see that SAS is valued on a multiple of 1, which is lower than Norwegian. This makes sense as we’ve seen that SAS is also a company with a lot of debt. Given their invested capital, the return/risk does not support a higher valuation.

## Conclusion

We know that multiples are used to compare companies to find out whether the company being measured is undervalued/overvalued. By using peer average multiples for 2018, we've calculated indicative share prices compared to what the company is being priced at now.

Share price calculation				
	2018 peers	2018 Norwegian	Share price	Indicative share price
P/S	1,11	0,20	173,5	986
P/B	2,02	4,63	173,5	76
EV/EBITDAR	7,57	43,84	173,5	-1521
EV/Invested Capital	1,42	1,07	173,5	841

Table 57: Multiples share price NAS. Own creation.

From the multiples we can see that due to the phase Norwegian has been through, the multiples can be given little if no credibility. According to P/S the share price should be 986 which indicates an upside of 568%. Even if we cannot give any credibility to this measure, it tells us that if Norwegian succeeds with their cost cutting and is able to reach industry average margins, we could see a huge increase in Norwegian's share price.

From P/B we see that the company is overpriced and indicates a downside of 44%. Due to the airlines financing, this multiple is hard to use, and we won't go into this further.

At last we see that both the EV/EBITDAR and EV/Invested Capital give provides us with quite a range. As Norwegian has a low profit margin and high EV compared to its peers, it tells us that compared to the size of the company, it's doing a lot worse than its peers. We also see that the according to the EV/Invested Capital ratio that Norwegian is heavily undervalued. This is due to the current equity risk in the company and the possibility of bankruptcy. The market prices the company as a geared product, as they should.

Weighted multiples			
Multiple calculation	EV/Invested Capital		EV/EBITDAR
Peer multiple		1,42	7,57
Invested capital or EBITDAR	kr	86 903 166	kr 2 123 400
Indicated EV	kr	123 402 496	kr 16 074 138
Indicative market value of equity	kr	38 203 830	kr -69 124 528
Number of shares		45437	45437
Indicative share price	kr	841	kr -1 521
Weighted		0,7	0,3
Weighted share price	kr	589	kr -456
Share price	kr	173,5	173,5
<b>Weighted indicative share price</b>		<b>132.0</b>	

Table 58: Weighted multiples. Own creation.

We have in the table above done a weighted of the multiple EV/Invested capital and EV/EBITDAR. The reason why we use these multiples is because they consider debt into their calculations, which we find to be important. By valuing Norwegian with these weighted multiples using we are solving a problem in the cashflow in terms of the capital expenditure in the terminal period. In our estimations we have weighted the EV/EBITDAR with 30% because we do not find the EBITDAR to be representative due to Norwegian as of now being in a growth phase where the EBITDAR is negative. With regards to EV/Invested capital we have decided to weigh this 70% because this multiple gives an indication for the potential of the invested capital. Based on Norwegians multiple of 1,07 the market gives an indication of a potential upside, but it is important to bear in mind the risk that comes along with the high debt/equity ratio along with the credit rating mentioned under section 5.2.

The conclusion from these multiples are that the risk of bankruptcy is high, but there might also be a tremendous upside. As a conclusion under Multiple valuation we found the weighted multiples to give us a downside of 14%.

As EV/EBITDAR is usually a good indicator of how airlines are priced, we chose to include the forward EV/EBITDAR for Norwegian calculated from the DCF, as it with negative results was not representative.

Implied multiples	2018A	2019E	2020E	2021E	2022E	2023E	2024E	Terminal value
EV/EBITDAR	40,7x	23,4x	14,5x	12,0x	10,6x	9,6x	8,3x	8,1x

Table 59: Forward EV/EBITDAR based on DCF calculations. Own creation.

As we can see from Table 59, the implied multiples tell us the DCF gives us reasonable results. As our forecasted EBITDAR is 10 856 million NOK in the terminal year and EV is 88 423 million, it indicates an EV/EBITDAR of 8,1. This is in par with the average peers multiple of 8,2 as mentioned in section 5.5 and by looking at Figure 43. The peer's multiple indicates an EV of:

$$EV = 8,2 * 10\ 856 = 89\ 019 \text{ million NOK}$$

By subtracting debt and adding cash it leaves us with an equity value of 3 820 million NOK and a share price of 84 NOK.

<b>Enterprise value ("EV")</b>	<b>89 019</b>
Less: Total debt	87 120
Plus: Cash and Cash Equi.	1 922
Net debt (negative number equals net cash p	85 199
Equity value ("market cap")	3 820
Outstanding shares	45,437
<b>Price per share</b>	<b>84,08</b>

Table 60: EV calculation on peer multiple. Own creation.

Given the volatile earnings of Norwegian, it made it hard to value with multiples. Therefore, we chose DCF valuation as our main analysis. After carefully forecasting revenue and costs, we arrived at a share price of 70,96 NOK. By using the forward EV/EBITDAR multiple of peers, we were able to confirm that a share price of 70,96 NOK given the assumptions made, was a fair estimate.

## 5.6 Liquidation method

According to a survey done by Petersen and Plenborg the liquidation approach is used in less than 20 percent of the cases where analysts value companies.<sup>136</sup> Such methods are more useful when valuing companies in financial distress, as it focuses more on the alternative use of the asset. Let's assume that Norwegian would liquidate all their assets, what would happen right away is a fire sale where the prices for the aircrafts would drop and the selling prices would result in a huge loss for the creditors. Therefore, we consider the liquidation method as

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<sup>136</sup> Plenborg et al 2009

non-existing and instead consider Norwegian going concern, which is in line with their future strategy as mentioned under 2.0 Strategy.

The liquidation method is rarely used due to the complexity of the approach and the challenges that the method faces in terms of estimates. We find it quite difficult to provide a selling price for the different aircrafts due to depreciations and discounts achieved on larger orders, therefore will this valuation technique not be further discussed.<sup>137</sup>

## 6.0 Scenario analysis

The purpose of a scenario analysis is to investigate possible outcomes of changes in different variables stated in section 4.0 Forecasting. Basically, we will be looking at operational drivers covered in the sensitivity analysis and drivers that impacts the most. We will in this section present two different scenarios. Firstly, we will start off with the worst-case scenario where we are pessimistic about the future and beliefs in intense competition. Secondly, we will assume a brighter future with a best-case scenario. We will conclude by looking at actual values and the results will be compared to our share price estimated 70,96 NOK.

### 6.1 Worst Case Scenario

From the strategic analysis in section 2.0 we found that there are numerous of threats to Norwegian's future development. As the Pestel analysis showed, jet fuel price is the main cost for Norwegian and is historically the oil prices has been quite volatile. We will assume a growth in the oil price of 15% and then a jet fuel price estimated in our regression. This is not an extremely high oil price, but it will for sure give a good indication of how much this impacts the cost and the future value of Norwegian. As mentioned under Porter's five forces the industry is under increased competition. This results in price competition, which results in ticket prices going down. Competition can also mean that losing customers to competitors.

In order to get an overview of the worst-case scenario. We assume as following: Due to intense competition from SAS and peer group we believe that load factor will drop by 5%, in terms of ticket price we assume that they will remain the same as they already are low. As Norwegian already has postponed airplane deliveries and sold older aircraft we believe that the growth in fleet will remain as forecasted. Further on we assume a rise in the oil price by

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<sup>137</sup> Petersen and Plenborg. Financial statement analysis. P.211

15%. If this were real scenario Norwegian would probably engage cost savings, we will not take this into consideration. Rest of the cost we expect to remain the same.

## 6.2 Best Case Scenario

Opposite from the worst-case scenario we will now look at the possible positive development based on what we discovered in the strategic analysis. We will therefore in the following section discuss optimistic assumptions which would benefit Norwegian. First of all, we start off with the oil price, let's assume that this instead of increasing by 15% it now drops 15%. This will certainly reduce Norwegian's fuel bill. We could have assumed that a competitor goes bankruptcy, but we believe that this is just not realistic. Let's assume an economic growth in the main markets, this will boost passenger activity. Load factor increases as a result of the economic growth and the general growth of demand in air travels. We assume that the payroll expenses will remain at the same level due to the

Let's assume that the demand for air travels increases, and at the same time the ticket price rises with 5% each year in the coming period. Norwegian will at the same time experience a higher load factor due to the growth in air travels, this will rise by 5%.

## 6.3 Scenario Outcomes

In the tables below, you can see the outcomes of the scenarios above. The variables changed can be seen in the grey area of the tables. As you can see the share price vary from 0 (negative price) in the worst-case scenario to 5180 in the best-case scenario. The share price outcome is at the moment quite unrealistic, but we believe that it does show some of the potential. These outcomes really show the importance of monitoring the development in Norwegian Air Shuttle. Investors should really acknowledge this importance, if they were considering investing.

Worst Case Scenario (in mill NOK)													
Share price	NOK -												
Year	2018	E2019	E2020	E2021	E2022	E2023	E2024						
Oil price	68,16666667		80,5		77,05		77,05		77,05		77,05		77,05
Load factor	0,858		0,806		0,806		0,806		0,806		0,806		0,806
Passenger transport	NOK 30 536	NOK 32 375	NOK 35 398	NOK 37 654	NOK 39 280	NOK 41 986	NOK 46 104						
Ancillary revenue	NOK 8 380	NOK 7 520	NOK 9 024	NOK 9 926	NOK 10 423	NOK 11 048	NOK 11 821						
Other revenue (Freight and other)	NOK 1 349	NOK 1 431	NOK 1 564	NOK 1 664	NOK 1 736	NOK 1 855	NOK 2 037						
Total operating revenue	NOK 40 266	NOK 41 326	NOK 45 986	NOK 49 244	NOK 51 438	NOK 54 889	NOK 59 963						
Operational expenses	NOK 32 965	NOK 33 720	NOK 35 153	NOK 36 436	NOK 37 328	NOK 38 871	NOK 42 506						
Payroll and other personnel expenses	NOK 6 665	NOK 7 242	NOK 8 035	NOK 8 673	NOK 9 180	NOK 9 957	NOK 11 094						
Depreciation and amortization	NOK 1 668	NOK 2 170	NOK 2 672	NOK 3 174	NOK 3 677	NOK 4 179	NOK 4 681						
Other operating expenses	NOK 1 826	NOK 1 862	NOK 1 900	NOK 1 938	NOK 1 976	NOK 2 016	NOK 2 056						
Total operating expenses	NOK 44 117	NOK 44 495	NOK 47 760	NOK 50 220	NOK 52 161	NOK 55 023	NOK 60 337						
<b>Profit/-loss</b>	<b>-NOK 3 851</b>	<b>-NOK 3 169</b>	<b>-NOK 1 774</b>	<b>-NOK 976</b>	<b>-NOK 723</b>	<b>-NOK 133</b>	<b>-NOK 374</b>						

Table 61: Scenario analysis - Worst Case. Own creation

Best Case Scenario (in mill NOK)													
Share price	NOK 5 180												
Year	2018	E2019	E2020	E2021	E2022	E2023	E2024						
Oil price	\$ 68,17	\$ 60,87	\$ 58,26	\$ 58,26	\$ 58,26	\$ 58,26	\$ 58,26						
Load factor	0,858	0,906	0,906	0,906	0,906	0,906	0,906						
Passenger transport	kr 34 315	kr 36 382	kr 39 779	kr 42 314	kr 44 141	kr 47 182	kr 51 810						
Ancillary revenue	kr 4 434	kr 7 520	kr 9 024	kr 10 738	kr 11 812	kr 12 521	kr 13 397						
Other revenue (Freight and other)	kr 1 516	kr 1 608	kr 1 758	kr 1 870	kr 1 951	kr 2 085	kr 2 290						
Total operating revenue	kr 40 266	kr 45 510	kr 50 561	kr 54 922	kr 57 904	kr 61 788	kr 67 497						
Operational expenses	kr 32 965	kr 31 814	kr 32 831	kr 33 735	kr 34 446	kr 35 900	kr 39 365						
Payroll and other personnel expenses	kr 6 665	kr 7 242	kr 8 035	kr 8 673	kr 9 180	kr 9 957	kr 11 094						
Depreciation and amortization	kr 1 668	kr 2 170	kr 2 672	kr 3 174	kr 3 677	kr 4 179	kr 4 681						
Other operating expenses	kr 1 826	kr 1 862	kr 1 900	kr 1 938	kr 1 976	kr 2 016	kr 2 056						
Total operating expenses	kr 44 117	kr 44 475	kr 46 518	kr 48 776	kr 50 620	kr 53 433	kr 58 657						
<b>Profit/-loss</b>	<b>kr -3 851</b>	<b>kr 1 035</b>	<b>kr 4 043</b>	<b>kr 6 146</b>	<b>kr 7 284</b>	<b>kr 8 355</b>	<b>kr 8 840</b>						

Table 62: Scenario analysis - Best Case. Own creation.

## 7.0 Conclusion

The purpose of this thesis was to analyze Norwegian in regard to strategy, management, financial position and valuation, to eventually come up with a conclusion on whether the share price per 31.12.2018 of 173,50 NOK was under- or overvalued.

The strategic analysis consisted of both Porters five forces and PESTEL. It provided us with good information on competition in the industry, how price sensitive the market is and how the market is constantly changing and developing. Due to LCC's not being part of strategic alliances, they would have to create such benefits themselves. Norwegian has built up a strong brand and is entering the long-haul market. This, together with massive investments in new aircrafts has led Norwegian to become an acknowledged player in the industry.

In our financial statement analysis, we presented Norwegians results and balance sheet from 2014-2018, and calculated multiple key figures to be able to assess Norwegians historical and current state, which was used in forecasting. The ratios calculated using the regrouped statements, helped us get a good overview of Norwegians financial position and if proposed strategies are feasible. The regrouping was necessary to be able to analyze the company from an investor's perspective and calculate key figures like ROIC, WACC, NOPLAT and the FCFF.

Forecasting was based on historical performance, future growth in inflation and ASK, and also fleet development. Due to Norwegians shift from growth to profitability, we had to carefully assess every revenue and cost item, to make sure our assumptions and predictions were reasonable.

At last the WACC and forecasting was used to do a DCF-valuation of Norwegians future cash flows. Given NAS' low WACC, we decided to use the industry WACC as our terminal value, due to assuming the company to reach stable growth, therefore having the same capital structure as their peers.

The share price obtained from the discounted cash flow gave us a significantly lower share price. Our forecast was a carefully optimistic one, and it could be discussed whether Norwegian actually will manage through 2019 with the existing cash balance. It gave us an upside of roughly 142% and a share price of 595 NOK. This seemed like a reasonable

estimate due to the EV/EBITDAR multiple reaching 8,1x in the terminal year, which was just about the same as Norwegians peers average multiplicator. As minor changes in variables such as WACC, Capex and jet fuel price have significant impact on the share price, we decided to do a sensitivity analysis by changing these factors, and it illustrated the risk/potential of Norwegian in its current state. In regard to the multiple calculations (EV/EBITDAR and EV/IC) we obtained a share price of 132, which we found to be not as useful due to the volatility of these prices. The P/B and P/S were not easy to use as they didn't include capital structure and therefore were given little to no weight. In terms of liquidation we quickly saw that there would be no value left for the investors after selling the assets. In other words, the investors are better of having the money in Norwegian, instead of liquidating the company.

After all, Norwegian comes with a lot of risk, but the upside could be enormous. This can be seen through the sensitivity analysis. The next couple of years will be decisive for Norwegian itself and its shareholders.

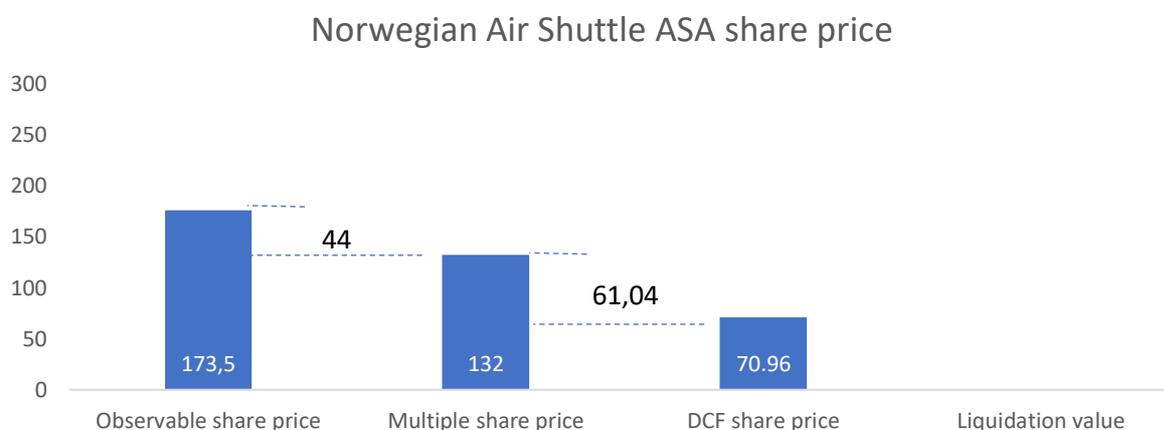


Figure: Share price summary. Own creation.

Concluding with the results, we believe that the DCF-model gives us the most accurate view of Norwegians true value. Although it showed to be sensitive to changes, the time spent forecasting and carefully picking out reasonable growth-factors, we choose to weigh 80/20 in favor of the DCF. The conclusion is therefore that Norwegians fair share price on 31.12.2018 is:

$$\text{Share price} = 80\% * 595 \text{ NOK} + 20\% * 132 = \mathbf{502 \text{ NOK}}$$

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## 9.0 Appendix

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## 9.1 Current ratio

Current Ratio (Working Capital ratio)					
	2014	2015	2016	2017	2018
NAS	0,45	0,48	0,43	0,56	0,43
EasyJet	0,89	0,72	0,92	1,04	0,97
Ryanair	1,51	1,72	1,43	1,56	1,23
Wizz Air	0,76	1,46	1,70	1,84	1,87
SAS AB	0,79	0,86	0,78	0,81	0,88
<b>Average WC ratio peers</b>	<b>0,99</b>	<b>1,19</b>	<b>1,21</b>	<b>1,31</b>	<b>1,24</b>

## 9.2 Interest coverage ratio

Interest Coverage Ratio	2014	2015	2016	2017	2018
NAS	-0,7	0,9	1,6	-0,3	-1,0
EasyJet	21,7	29,1	20,6	11,3	11,0
Ryanair	6,7	11,7	18,1	20,3	24,8
Wizz Air	2,7	3,6	3,5	4,1	4,1
SAS AB	0,2	3,2	3,3	3,4	4,0
<b>Average IC ratio peers</b>	<b>7,8</b>	<b>11,9</b>	<b>11,4</b>	<b>9,8</b>	<b>11,0</b>

### 9.3 Future airline fleet

Year- average plane	2018	2019	2020	2021	2022	2023	2024
Airbus 321LR Neo	0	0	0	0	3	9	17
Boeing 787-8/9 owned	10	11,5	15,5	18	18	18	18
Boeing 787-8/9 leased	22	23	24	24	24	24	24
Boeing 737-Max owned	14	22	34	47	56	63	77
Boeing 737-Max leased	4	4	4	4	4	4	4
Boeing 737-800 owned	52	45,5	39	39	39	39	39
Boeing 737-800 leased	62	61,5	57	47	41	41	41
<b>Total</b>	<b>164</b>	<b>167,5</b>	<b>173,5</b>	<b>179</b>	<b>185</b>	<b>198</b>	<b>220</b>
Deliveries in the respective year							
Airbus 321LR Neo	0	0	0	0	6	6	10
Boeing 787-8/9 owned	0	3	5	0	0	0	0
Boeing 787-8/9 leased	0	2	0	0	0	0	0
Boeing 737-Max owned	0	16	8	18	0	14	14
Boeing 737-Max leased	0	0	0	0	0	0	0
Boeing 737-800 owned	0	-13	0	0	0	0	0
Boeing 737-800 leased	0	-1	-8	-12	0	0	0
Average planes	0	0	0	0	0	0	0
Airbus 321LR Neo	0	0	0	0	6	12	22
Boeing 787-8/9 owned	10	13	18	18	18	18	18
Boeing 787-8/9 leased	22	24	24	24	24	24	24
Boeing 737-Max owned	14	30	38	56	56	70	84
Boeing 737-Max leased	4	4	4	4	4	4	4
Boeing 737-800 owned	52	39	39	39	39	39	39
Boeing 737-800 leased	62	61	53	41	41	41	41
<b>Total</b>	<b>164</b>	<b>171</b>	<b>176</b>	<b>182</b>	<b>188</b>	<b>208</b>	<b>232</b>

#### 9.4 Forecasted fuel consumption

Aviation fuel (in mill nok)									
Year	2018	E2019	E2020	E2021	E2022	E2023	E2024		
ASK forecast	98810	102708	110095	114814	117424	123053	132474		
ASK 2018	98810	98810	98810	98810	98810	98810	98810		
Growth in ASK	0	3899	11285	16004	18614	24243	33664		
15% Efficiency factor	10%	10%	10%	10%	10%	10%	10%		
Hedged position	35%	38%	25%	15%	10%	10%	10%		
Fuel per ASK in barrels	0,157	0,156	0,155	0,155	0,155	0,155	0,154		0,153
Fuel consumption in barrels	15 512 460	16 064 938	17 111 748	17 780 520	18 150 334	18 948 110	20 283 163		
Hedged position 38% - 680 USD/mt	4 397	4 492	3 109	1 914	1 286	1 326	1 402		
Fluctuating cost	8 165	7 060	8 657	10 067	10 745	11 077	11 709		
NOK/USD Multi markets guiding	NOK 8,7	NOK 8,6	NOK 8,5	NOK 8,4	NOK 8,3	NOK 8,2	NOK 8,1		
Oil price avg	\$ 68,2	\$ 70,0	\$ 67,0	\$ 67,0	\$ 67,0	\$ 67,0	\$ 67,0		
Barrel price	\$ 85,7	\$ 82,5	\$ 79,5	\$ 79,5	\$ 79,5	\$ 79,5	\$ 79,5		
Price each tonnes	\$ 679,3	\$ 654,3	\$ 630,5	\$ 630,5	\$ 630,5	\$ 630,5	\$ 630,5		
<b>Total fuel cost</b>	<b>NOK 12 562</b>	<b>NOK 11 552</b>	<b>NOK 11 766</b>	<b>NOK 11 981</b>	<b>NOK 12 031</b>	<b>NOK 12 403</b>	<b>NOK 13 111</b>		



9.6 Regression analysis of the jet fuel price

SUMMARY OUTPUT										
<i>Regression Statistics</i>										
Multiple R	0,99305238	Average ratio between Jetfuel and Oilprice					20,2 %			
R Square	0,98615303									
Adjusted R S	0,98609509									
Standard Error	4,19570363									
Observations	241									
<i>ANOVA</i>										
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>					
Regression	1	299638,066	299638,066	17021,0904	4,048E-224					
Residual	239	4207,33901	17,6039289							
Total	240	303845,405								
<i>Coefficients</i>										
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>	<i>Upper 95,0%</i>		
Intercept	3,46197704	0,61668084	5,61388784	5,4692E-08	2,24715316	4,67680092	2,24715316	4,67680092		
Oil Price	1,13501895	0,0086998	130,464901	4,048E-224	1,11788087	1,15215704	1,11788087	1,15215704		

## 9.7 Net working capital calculation

		Net working capital (in mill NOK)											
		2014	2015	2016	2017	2018	E2019	E2020	E2021	E2022	E2023	E2024	
<b>Total income</b>													
Revenue	kr	19 540	kr 22 484	kr 26 054	kr 30 948	kr 40 125	kr 43 334	kr 48 182	kr 51 760	kr 54 569	kr 58 230	kr 63 611	
<b>Current assets</b>													
Inventory	kr	83	kr 104	kr 102	kr 102	kr 167	kr 206	kr 240	kr 280	kr 295	kr 315	kr 344	
Accounts receivable	kr	1 270	kr 1 457	kr 1 623	kr 2 467	kr 4 092	kr 5 050	kr 5 870	kr 6 855	kr 7 227	kr 7 712	kr 8 424	
Cash and cash equivalents for operations	kr	391	kr 450	kr 521	kr 619	kr 805	kr 994	kr 1 155	kr 1 349	kr 1 422	kr 1 518	kr 1 658	
Other longterm receivables	kr	904	kr 1 093	kr 1 391	kr 1 890	kr 2 660	kr 3 283	kr 3 816	kr 4 456	kr 4 698	kr 5 013	kr 5 476	
<b>Current assets relating to operations</b>	kr	<b>2 647</b>	kr <b>3 105</b>	kr <b>3 638</b>	kr <b>5 078</b>	kr <b>7 725</b>	kr <b>9 534</b>	kr <b>11 082</b>	kr <b>12 940</b>	kr <b>13 642</b>	kr <b>14 558</b>	kr <b>15 903</b>	
<i>% of total income</i>		14%	14%	14%	16%	19%	22%	23%	25%	25%	25%	25%	
<b>Current liabilities</b>													
Accounts payable	kr	889	kr 781	kr 991	kr 1 755	kr 2 266	kr 2 449	kr 2 635	kr 3 019	kr 3 382	kr 3 397	kr 3 478	
Air traffic settlement liabilities	kr	2 955	kr 4 014	kr 4 666	kr 6 494	kr 6 907	kr 7 465	kr 8 032	kr 9 204	kr 10 310	kr 10 354	kr 10 604	
Accrued expenses	kr	1 010	kr 1 169	kr 1 602	kr 1 908	kr 3 257	kr 3 520	kr 3 788	kr 4 340	kr 4 862	kr 4 883	kr 5 001	
<b>Current liabilities relating to operations</b>	kr	<b>4 864</b>	kr <b>5 964</b>	kr <b>7 259</b>	kr <b>10 157</b>	kr <b>12 431</b>	kr <b>13 434</b>	kr <b>14 455</b>	kr <b>16 563</b>	kr <b>18 554</b>	kr <b>18 634</b>	kr <b>19 083</b>	
<i>% of total income</i>		25%	27%	28%	33%	31%	31%	30%	32%	34%	32%	30%	
<b>Working capital</b>	kr	<b>-2 217</b>	kr <b>-2 859</b>	kr <b>-3 621</b>	kr <b>-5 078</b>	kr <b>-4 705</b>	kr <b>-3 900</b>	kr <b>-3 373</b>	kr <b>-3 623</b>	kr <b>-4 911</b>	kr <b>-4 076</b>	kr <b>-3 181</b>	
<b>Change in working capital</b>	kr	<b>-185</b>	kr <b>-642</b>	kr <b>-762</b>	kr <b>-1 457</b>	kr <b>373</b>	kr <b>805</b>	kr <b>527</b>	kr <b>-250</b>	kr <b>-1 288</b>	kr <b>835</b>	kr <b>896</b>	
<b>Working capital ratio</b>		<b>0,54</b>	<b>0,52</b>	<b>0,50</b>	<b>0,50</b>	<b>0,62</b>	<b>0,71</b>	<b>0,77</b>	<b>0,78</b>	<b>0,74</b>	<b>0,78</b>	<b>0,83</b>	

9.8 Capitalized operating leases with depreciation

Year	Operational leasing costs	NPV	Rental expense	Reduction in leasing debt	Leasing debt	Depreciation
2018	NOK 4354100,00				NOK 27959020,13	
2019	NOK 5035900,00	NOK 4833381,32	NOK 1171482,94	NOK 3864417,06	NOK 24094603,07	NOK 3494877,52
2020	NOK 4414225,00	NOK 4066327,84	NOK 1009563,87	NOK 3404661,13	NOK 20689941,94	NOK 3494877,52
2021	NOK 4414225,00	NOK 3902800,50	NOK 866908,57	NOK 3547316,43	NOK 17142625,51	NOK 3494877,52
2022	NOK 4414225,00	NOK 3745849,41	NOK 718276,01	NOK 3695948,99	NOK 13446676,52	NOK 3494877,52
2023	NOK 4414225,00	NOK 3595210,11	NOK 563415,75	NOK 3850809,25	NOK 9595867,26	NOK 3494877,52
2024	NOK 3470333,33	NOK 2712782,43	NOK 402066,84	NOK 3068266,50	NOK 6527600,77	NOK 3494877,52
2025	NOK 3470333,33	NOK 2603687,90	NOK 273506,47	NOK 3196826,86	NOK 3330773,91	NOK 3494877,52
2026	NOK 3470333,33	NOK 2498980,62	NOK 139559,43	NOK 3330773,91		NOK 3494877,52
<b>Sum</b>	NOK 33103800,00	NOK 27959020,13	NOK 5144779,87	NOK 27959020,13		NOK 27959020,13

9.9 Investments – Including prepayments and payments

	Investments incl. Prepayments and payments (in \$'s and mill NOK)						
	E2019	E2020	E2021	E2022	E2023	E2024	
<b>Payments</b>							
Airbus 321LR Neo		0	\$ 42 735,00	\$ 85 470,00	\$ 455 840,00	\$ 413 105,00	\$ 569 800,00
Boeing 787-8/9 owned	\$ 415 178,50	\$ 572 660,00					
Boeing 737-Max owned	\$ 991 837,00	\$ 528 121,00	\$ 1 017 599,00	\$ 180 334,00	\$ 811 503,00	\$ 721 336,00	
Boeing 737-800 owned	\$ -730 730,00						
<b>Sum</b>	<b>\$ 676 285,50</b>	<b>\$ 1 143 516,00</b>	<b>\$ 1 103 069,00</b>	<b>\$ 636 174,00</b>	<b>\$ 1 224 608,00</b>	<b>\$ 1 224 608,00</b>	<b>\$ 1 291 136,00</b>
In mill NOK	kr 5 810 138	kr 9 701 429	kr 9 241 304	kr 5 263 124	kr 10 004 649	kr 10 416 309	
<b>Prepayments</b>							
Airbus 321LR Neo		\$ 42 735,00	\$ 85 470,00	\$ 113 960,00	\$ 156 695,00	\$ 142 450,00	
Boeing 787-8/9 owned	\$ 157 481,50	\$ 143 165,00					
Boeing 737-Max owned	\$ 373 549,00	\$ 218 977,00	\$ 322 025,00	\$ 180 334,00	\$ 270 501,00	\$ 180 334,00	
Boeing 737-800 owned							
<b>Sum</b>	<b>\$ 531 030,50</b>	<b>\$ 404 877,00</b>	<b>\$ 407 495,00</b>	<b>\$ 294 294,00</b>	<b>\$ 427 196,00</b>	<b>\$ 322 784,00</b>	
In mill NOK	kr 4 562,22	kr 3 434,92	kr 3 413,92	kr 2 434,72	kr 3 490,05	kr 2 604,08	
<b>Payment</b>							
Airbus 321LR Neo				\$ 341 880,00	\$ 256 410,00	\$ 427 350,00	
Boeing 787-8/9 owned	\$ 257 697,00	\$ 429 495,00					
Boeing 737-Max owned	\$ 618 288,00	\$ 309 144,00	\$ 695 574,00		\$ 541 002,00	\$ 541 002,00	
Boeing 737-800 owned	\$ -730 730,00						
<b>Sum</b>	<b>\$ 145 255,00</b>	<b>\$ 738 639,00</b>	<b>\$ 695 574,00</b>	<b>\$ 341 880,00</b>	<b>\$ 797 412,00</b>	<b>\$ 968 352,00</b>	
In NOK	kr 1 247,92	kr 6 266,51	kr 5 827,39	kr 2 828,40	kr 6 514,60	kr 7 812,23	
<b>TOTAL</b>	<b>5 810,14</b>	<b>9 701,43</b>	<b>9 241,30</b>	<b>5 263,12</b>	<b>10 004,65</b>	<b>10 416,31</b>	

9.10 Net interest bearing debt

		Net interest-bearing debt (in mill NOK)											
		2014	2015	2016	2017	2018	E2019	E2020	E2021	E2022	E2023	E2024	
Bond issue	kr	831	3 222	4 154	4 320	3 583	3 515	3 448	3 382	3 318	3 255	3 193	
Credit facility	kr	2 568	-	325	675	1 125	1 125	1 125	1 125	1 125	1 125	1 125	1 125
Aircraft preparation financing	kr	9 877	1 473	1 416	616	4 142	4 562	3 435	3 414	2 435	3 490	2 604	
Aircraft financing	kr	-	14 890	17 580	20 694	24 990	21 990	21 686	21 414	20 208	20 263	19 422	
Aircraft financial lease liability	kr	15 447	35 475	31 135	31 590	27 959	24 095	20 690	17 143	13 447	9 596	6 528	
<b>Total</b>	<b>kr</b>	<b>28 722,62</b>	<b>55 059,36</b>	<b>54 610,17</b>	<b>57 894,36</b>	<b>61 798,22</b>	<b>55 285,98</b>	<b>50 383,83</b>	<b>46 477,16</b>	<b>40 532,09</b>	<b>37 728,19</b>	<b>32 871,45</b>	

## 9.11 Historical period - cashflow

	Historical period						
	2012A	2013A	2014A	2015A	2016A	2017A	2018A
<b>Net sales</b>	NOK 12 859	NOK 15 580	NOK 19 540	NOK 22 491	NOK 26 055	NOK 30 948	NOK 40 266
OPEX	NOK 8 099	NOK 10 086	NOK 13 514	NOK 13 626	NOK 15 182	NOK 20 132	NOK 28 610
Administrative and other expenses	NOK 2 939	NOK 2 709	NOK 4 842	NOK 5 171	NOK 4 914	NOK 6 868	NOK 9 485
<b>Total costs excluding leases</b>	NOK 11 037	NOK 12 796	NOK 18 356	NOK 18 797	NOK 20 096	NOK 27 000	NOK 38 095
Unusual expense/income and other							-712
<b>EBITDAR</b>	1 822	2 784	1 184	3 694	5 958	3 949	1 459
Leasing			NOK 1 291	NOK 727	NOK 1 537	NOK 2 566	NOK 2 978
<b>EBITDA</b>	1 822	2 784	-108	2 967	4 421	1 382	-1 519
Depreciation/amortization incl. Capitalized operating	-NOK 385	-NOK 530	-NOK 2 678	-NOK 5 567	-NOK 5 188	-NOK 6 010	-NOK 5 773
<i>Reclassification of NOFI</i>							-1 929
<b>EBIT</b>	1 436	2 254	-2 786	-2 600	-767	-4 628	-9 220
Tax (22%)	-167	-116	557	171	-373	768	1 036
Depreciation/amortization	385	530	2 678	5 567	5 188	6 010	5 773
Calculated interest rate on leasing			555	1 486	1 305	1 324	1 376
Capex			-4 898	-5 143	-6 416	-3 518	-8 782
Increase/decrease in leasing obligations		-349	1 445	22 238	-4 339	454	1 250
Net Working Capital	-1 949	-1 373	-2 217	-2 859	-3 621	-5 078	-4 705
Increase/Decrease in NWC		-576	-185	-642	-762	-1 457	373
<b>Unlevered Free Cash Flow</b>			-5 154	-22 114	4 037	959	-11 440
WACC							
Discount Period							
Discount Factor							
<b>Present value of free cash flow</b>							

## 9.12 Worst case scenario - Cashflow

Historical period	Projected period													
	2019E		2020E		2021E		2022E		2023E		2024E		Terminal value	
<b>Net sales</b>	<b>NOK</b>	<b>41 326</b>	<b>NOK</b>	<b>45 986</b>	<b>NOK</b>	<b>49 244</b>	<b>NOK</b>	<b>51 438</b>	<b>NOK</b>	<b>54 889</b>	<b>NOK</b>	<b>59 963</b>	<b>NOK</b>	<b>61 462</b>
OPEX	NOK	28 684	NOK	30 739	NOK	32 021	NOK	32 914	NOK	34 457	NOK	39 036	NOK	40 012
Administrative and other expenses	NOK	11 275	NOK	12 607	NOK	13 784	NOK	14 833	NOK	16 152	NOK	17 832	NOK	18 277
Unusual income/expense	-NOK	500												
<b>Total costs excluding leases</b>	<b>NOK</b>	<b>39 959</b>	<b>NOK</b>	<b>43 346</b>	<b>NOK</b>	<b>45 806</b>	<b>NOK</b>	<b>47 747</b>	<b>NOK</b>	<b>50 608</b>	<b>NOK</b>	<b>56 867</b>	<b>NOK</b>	<b>58 289</b>
<b>EBITDAR</b>		<b>1 367</b>		<b>2 640</b>		<b>3 438</b>		<b>3 691</b>		<b>4 281</b>		<b>3 096</b>		<b>3 173</b>
Leasing/Depreciations from Capitalized operating leases	-NOK	3 864	-NOK	3 405	-NOK	3 547	-NOK	3 696	-NOK	3 851	-NOK	3 068	-NOK	3 145
<b>EBITDA</b>		<b>-2 497</b>		<b>-764</b>		<b>-109</b>		<b>-5</b>		<b>430</b>		<b>27</b>		<b>28</b>
Depreciation/amortization incl. Capitalized operating leases	-NOK	2 170	-NOK	2 672	-NOK	3 174	-NOK	3 677	-NOK	4 179	-NOK	4 681	-NOK	4 798
<b>EBIT</b>		<b>-4 667</b>		<b>-3 437</b>		<b>-3 284</b>		<b>-3 682</b>		<b>-3 749</b>		<b>-4 654</b>		<b>-4 770</b>
Tax (22%)		1 027		756		722		810		825		1 024		1 049
<b>NOPAT</b>		<b>-3 640</b>		<b>-2 680</b>		<b>-2 561</b>		<b>-2 872</b>		<b>-2 924</b>		<b>-3 630</b>		<b>-3 721</b>
Depreciation/amortization		2 170		2 672		3 174		3 677		4 179		4 681		4 798
Capex		-5 810		-9 701		-9 241		-5 263		-10 005		-10 419		-7 677
Depreciation on operating leases		3 864		3 405		3 547		3 696		3 851		3 068		3 145
Increase/decrease in leasing obligations		-3 355		-2 952		-2 598		-2 286		-2 012		-1 771		-1 815
Net Working Capital		-3 900		-3 373		-3 623		-4 911		-4 076		-3 181		-3 260
Increase/Decrease in NWC		805		527		-250		-1 288		835		896		918
<b>Unlevered Free Cash Flow</b>		<b>-866</b>		<b>-3 880</b>		<b>-2 232</b>		<b>2 812</b>		<b>-3 722</b>		<b>-5 425</b>		<b>-2 558</b>
WACC		3,3%		3,3%		3,3%		3,3%		3,3%		3,3%		6,1%
Discount Period		1,0		2,0		3,0		4,0		5,0		6,0		7,0
Discount Factor		0,97		0,94		0,91		0,88		0,85		0,82		0,66
<b>Present value of free cash flow</b>		<b>-838</b>		<b>-3 634</b>		<b>-2 023</b>		<b>2 467</b>		<b>-3 160</b>		<b>-4 457</b>		<b>-1 690</b>

## 9.13 DCF – Worst case scenario

DCF-valuation	
<b>Enterprise value ("EV")</b>	<b>-72 461</b>
Less: Total debt	87 120
Plus: Cash and Cash Equi.	1 922
Net debt (negative number equals net cash position)	85 199
Equity value ("market cap")	-157 660
Outstanding shares	45,437
<b>Price per share</b>	<b>-3 469,86</b>

## 9.14 Terminal value – Worst case scenario

Terminal Value	
Terminal Year Free Cash Flow	-2 558
Perpetuity Growth Rate	2,5%
Terminal Year EBITDAR	3 096
Terminal Value	-72 822
<i>Implied Exit Multiple</i>	-23,9x
Discount Period	5,5
Discount Factor	0,8
<b>Present Value of Terminal Value</b>	<b>-60 816</b>
<i>% of Enterprise Value</i>	<b>84 %</b>

## 9.15 Best case scenario

Historical period	Projected period													
	2019E		2020E		2021E		2022E		2023E		2024E		Terminal value	
Net sales	NOK	45 510	NOK	50 561	NOK	54 922	NOK	57 904	NOK	61 788	NOK	67 497	NOK	69 185
OPEX	NOK	26 778	NOK	28 417	NOK	29 321	NOK	30 032	NOK	31 486	NOK	35 895	NOK	36 792
Administrative and other expenses	NOK	11 275	NOK	12 607	NOK	13 784	NOK	14 833	NOK	16 152	NOK	17 832	NOK	18 277
Unusual income/expense	-NOK	500												
<b>Total costs excluding leases</b>	<b>NOK</b>	<b>38 052</b>	<b>NOK</b>	<b>41 024</b>	<b>NOK</b>	<b>43 106</b>	<b>NOK</b>	<b>44 865</b>	<b>NOK</b>	<b>47 637</b>	<b>NOK</b>	<b>53 727</b>	<b>NOK</b>	<b>55 070</b>
<b>EBITDAR</b>		<b>7 458</b>		<b>9 537</b>		<b>11 816</b>		<b>13 039</b>		<b>14 151</b>		<b>13 771</b>		<b>14 115</b>
Leasing/Depreciations from Capitalized operating leases	-NOK	3 864	-NOK	3 405	-NOK	3 547	-NOK	3 696	-NOK	3 851	-NOK	3 068	-NOK	3 145
<b>EBITDA</b>		<b>3 593</b>		<b>6 132</b>		<b>8 269</b>		<b>9 343</b>		<b>10 300</b>		<b>10 702</b>		<b>10 970</b>
Depreciation/amortization incl. Capitalized operating leases	-NOK	2 170	-NOK	2 672	-NOK	3 174	-NOK	3 677	-NOK	4 179	-NOK	4 681	-NOK	4 798
<b>EBIT</b>		<b>1 423</b>		<b>3 460</b>		<b>5 095</b>		<b>5 666</b>		<b>6 122</b>		<b>6 021</b>		<b>6 172</b>
Tax (22%)		-313		-761		-1 121		-1 247		-1 347		-1 325		-1 358
<b>NOPAT</b>		<b>1 110</b>		<b>2 699</b>		<b>3 974</b>		<b>4 420</b>		<b>4 775</b>		<b>4 697</b>		<b>4 814</b>
Depreciation/amortization		2 170		2 672		3 174		3 677		4 179		4 681		4 798
Capex		-5 810		-9 701		-9 241		-5 263		-10 005		-10 419		-7 677
Depreciation on operating leases		3 864		3 405		3 547		3 696		3 851		3 068		3 145
Increase/decrease in leasing obligations		-3 355		-2 952		-2 598		-2 286		-2 012		-1 771		-1 815
Net Working Capital		-3 900		-3 373		-3 623		-4 911		-4 076		-3 181		-3 260
Increase/Decrease in NWC		805		527		-250		-1 288		835		896		918
<b>Unlevered Free Cash Flow</b>		<b>3 884</b>		<b>1 499</b>		<b>4 303</b>		<b>10 104</b>		<b>3 977</b>		<b>2 902</b>		<b>5 977</b>
WACC		3,3%		3,3%		3,3%		3,3%		3,3%		3,3%		6,1%
Discount Period		1,0		2,0		3,0		4,0		5,0		6,0		7,0
Discount Factor		0,97		0,94		0,91		0,88		0,85		0,82		0,66
<b>Present value of free cash flow</b>		<b>3 759</b>		<b>1 404</b>		<b>3 900</b>		<b>8 863</b>		<b>3 376</b>		<b>2 384</b>		<b>3 949</b>

## 9.16 DCF – Best case scenario

DCF-valuation	
<b>Enterprise value ("EV")</b>	<b>165 808</b>
Less: Total debt	87 120
Plus: Cash and Cash Equi.	1 922
Net debt (negative number equals net cash position)	85 199
Equity value ("market cap")	80 610
Outstanding shares	45,437
<b>Price per share</b>	<b>1 774,10</b>

## 9.17 Terminal value – Best case scenario

Terminal Value	
Terminal Year Free Cash Flow	5 977
Perpetuity Growth Rate	2,5%
Terminal Year EBITDAR	13 771
Terminal Value	170 180
<i>Implied Exit Multiple</i>	12,6x
Discount Period	5,5
Discount Factor	0,8
<b>Present Value of Terminal Value</b>	<b>142 122</b>
<i>% of Enterprise Value</i>	86 %

## 9.18 Credit rating setup

Rating	Likviditetsgrad 1	Rentedekningsgrad	Egenkapitalprosent	Netto driftrentabilitet	Årlig konkurssansynlighet	Kreditrisikofaktor
AAA	11,600	16,900	0,940	0,350	0,0001	0,1000
	8,900	11,600	0,895	0,308		
AA	6,200	6,300	0,850	0,266	0,0012	0,1500
	4,600	4,825	0,755	0,216		
A	3,000	3,350	0,660	0,166	0,0024	0,2500
	2,350	2,755	0,550	0,131		
BBB	1,700	2,160	0,440	0,096	0,0037	0,4000
	1,450	1,690	0,380	0,082		
BB	1,200	1,220	0,320	0,068	0,0136	0,6000
	1,050	1,060	0,270	0,054		
B	0,900	0,900	0,220	0,040	0,0608	1,0000
	0,750	0,485	0,175	0,026		
CCC	0,600	0,070	0,130	0,012	0,3085	3,0000
	0,550	-0,345	0,105	-0,002		
CC	0,500	-0,760	0,080	-0,016	0,5418	9,0000
	0,450	-1,170	0,030	-0,030		
C	0,400	-1,580	-0,020	-0,044	0,7752	27,0000
	0,350	-1,995	-0,100	-0,058		
D	0,300	-2,410	-0,180	-0,072	0,9999	1 000,0000

## 9.19 Synthetic credit rating

		Synthetic credit rating							
Norwegian synthetic rating		2016	2017	2018	Weighted rating	Credit risk	Yearly bankruptcy risk		
Current Ratio	C+	CCC-	C+	CC-		27	80%		
Equity ratio	CC-	C+	C+	C+		27	80%		
ROA	B-	CCC-	CC+	CCC		9	45%		
Interest Coverage ratio	BB+	CCC-	CC-	CCC-		1000	100%		

## 9.20 Ryanair reclassified income statement 2014-2018

Ryan Air	2018		2017		2016		2015		2014	
Passenger transport	€	5 134 000	€	4 868 200	€	4 967 200	€	4 260 300	€	3 789 500
Ancillary revenue	€	2 017 000	€	1 779 600	€	1 568 600	€	1 393 700	€	1 247 200
Other income										
<b>Total operating revenues</b>	<b>€</b>	<b>7 151 000</b>	<b>€</b>	<b>6 647 800</b>	<b>€</b>	<b>6 535 800</b>	<b>€</b>	<b>5 654 000</b>	<b>€</b>	<b>5 036 700</b>
Sales and distribution expenses	€	410 400	€	322 300	€	292 700	€	233 900	€	192 800
Aviation fuel	€	1 902 800	€	1 913 400	€	2 071 400	€	1 992 100	€	2 013 100
Aircraft leases	€	7 334	€	8 767	€	10 490	€	16 169	€	17 333
Airport and handling charges	€	938 600	€	864 800	€	830 600	€	712 800	€	617 200
Technical maintenance expenses	€	148 300	€	141 000	€	130 300	€	134 900	€	116 100
Route charges	€	701 800	€	655 700	€	622 900	€	547 400	€	522 000
Payroll and other personnel expenses	€	738 500	€	633 000	€	585 400	€	502 900	€	463 600
Depreciation and amortization	€	561 000	€	497 500	€	427 300	€	377 700	€	351 800
Total operating expenses	€	5 408 734	€	5 036 467	€	4 971 090	€	4 517 869	€	4 293 933
<b>Operating profit</b>	<b>€</b>	<b>1 742 266</b>	<b>€</b>	<b>1 611 333</b>	<b>€</b>	<b>1 564 710</b>	<b>€</b>	<b>1 136 131</b>	<b>€</b>	<b>742 767</b>
Interest income (renteinntekt)	€	2 000	€	4 200	€	17 900	€	17 900	€	16 500
Interest expense (rentekostnad)	-€	60 100	-€	67 200	-€	71 100	-€	74 200	-€	83 200
Other financial items (annen finansinntekt)	€	2 100	-€	700	€	315 000	-€	4 200	-€	500
Implied interest rate on leasing obligations	-€	74 966	-€	77 333	-€	104 610	-€	93 231	-€	84 167
<b>Profit/loss before tax</b>	<b>€</b>	<b>1 611 300</b>	<b>€</b>	<b>1 470 300</b>	<b>€</b>	<b>1 721 900</b>	<b>€</b>	<b>982 400</b>	<b>€</b>	<b>591 400</b>
Income tax expense	€	161 100	€	154 400	€	162 800	€	115 700	€	68 600
<b>Profit/loss for the year</b>	<b>€</b>	<b>1 450 200</b>	<b>€</b>	<b>1 315 900</b>	<b>€</b>	<b>1 559 100</b>	<b>€</b>	<b>866 700</b>	<b>€</b>	<b>522 800</b>

## 9.21 SAS AB reclassified income statement 2014-2018

SAS AB	2014		2015		2016		2017		2018	
Passenger transport	kr	28 710 000	kr	30 496 000	kr	30 371 000	kr	32 644 000	kr	34 077 000
Ancillary revenue	kr	2 108 000	kr	1 742 000	kr	1 791 000	kr	1 964 000	kr	1 957 000
Other income	kr	7 188 000	kr	7 412 000	kr	7 297 000	kr	8 046 000	kr	8 684 000
<b>Total operating revenues</b>	<b>kr</b>	<b>38 006 000</b>	<b>kr</b>	<b>39 650 000</b>	<b>kr</b>	<b>39 459 000</b>	<b>kr</b>	<b>42 654 000</b>	<b>kr</b>	<b>44 718 000</b>
Sales and distribution expenses	kr	2 228 000	kr	2 518 000	kr	2 372 000	kr	2 417 000	kr	2 583 000
Aviation fuel	kr	8 806 000	kr	8 430 000	kr	6 449 000	kr	6 836 000	kr	7 996 000
Aircraft leases	kr	2 060 000	kr	2 593 000	kr	2 840 000	kr	3 116 000	kr	3 156 000
Airport charges	kr	-								
Handling charges	--	--	--	--	kr	2 477 000	kr	2 704 000	kr	2 663 000
Technical maintenance expenses	--	--	--	--	kr	3 292 000	kr	3 515 000	kr	2 897 000
Other aircraft expenses	kr	83 000	kr	-106 000	kr	-585 000	kr	222 000	kr	51 000
Payroll and other personnel expenses	kr	9 831 000	kr	9 390 000	kr	9 071 000	kr	9 131 000	kr	9 336 000
Depreciation and amortization	kr	1 347 000	kr	1 259 000	kr	1 366 000	kr	1 427 000	kr	1 557 000
Other operating expenses	kr	13 513 000	kr	13 610 000	kr	10 285 000	kr	11 099 000	kr	11 958 000
Other losses/gains net	kr	-								
Total operating expenses	kr	37 868 000	kr	37 694 000	kr	37 567 000	kr	40 467 000	kr	42 197 000
<b>Operating profit</b>	<b>kr</b>	<b>138 000</b>	<b>kr</b>	<b>1 956 000</b>	<b>kr</b>	<b>1 892 000</b>	<b>kr</b>	<b>2 187 000</b>	<b>kr</b>	<b>2 521 000</b>
Interest income	kr	131 000	kr	130 000	kr	123 000	kr	191 000	kr	133 000
Interest expense	kr	-834 000	kr	-600 000	kr	-538 000	kr	-599 000	kr	-559 000
Other financial items	kr	-353 000	kr	-69 000	kr	-46 000	kr	-54 000	kr	-54 000
	kr	-								
<b>Profit/loss before tax</b>	<b>kr</b>	<b>-918 000</b>	<b>kr</b>	<b>1 417 000</b>	<b>kr</b>	<b>1 431 000</b>	<b>kr</b>	<b>1 725 000</b>	<b>kr</b>	<b>2 041 000</b>
Income tax expense	kr	-199 000	kr	461 000	kr	110 000	kr	576 000	kr	452 000
<b>Profit/loss for the year</b>	<b>kr</b>	<b>-719 000</b>	<b>kr</b>	<b>956 000</b>	<b>kr</b>	<b>1 321 000</b>	<b>kr</b>	<b>1 149 000</b>	<b>kr</b>	<b>1 589 000</b>

9.22 NPV of leasing of peers

<b>Change in booked</b>	<b>Debt from statements</b>	<b>NPV of leasing</b>	<b>Total</b>
<b>NORWEGIAN AIRS</b>	kr 54 281	kr 32 840	kr 87 120
<b>Ryanair</b>	€ 78 140	€ 1 733	€ 8 068
<b>Wizz Air</b>	€ 8 912	€ 21 411	€ 3 063
<b>Easy Jet</b>	£ 41 096	£ 5 666	£ 4 251
<b>SAS AB</b>	kr 25 315	kr 2 124	kr 29 191