Copenhagen Business School

Master THESIS

# Valuation of Norwegian Air Shuttle ASA

*Author:*

Charlotte PAUL 124639

Oda Elise ERIKSSON 124672

*Supervisor:*

Poul KJÆR

*Programme:*

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## Executive Summary

The purpose of this paper is to conduct a valuation of Norwegian Air Shuttle ASA to find a fair value of the company. The Norwegian airline is based in Oslo and provided flights for over 36 million passengers in 2019. To date, the company has undergone significant changes in its management and moved its core focus from growth to profitability. Many years of growth and development has increased the size of the company and subsequently led to an increase in debt levels. Moreover, in the last two years, the company has faced numerous challenges related to the grounding of the new Boeing MAX8 aircraft, troubles with Rolls Royce engines on the Dreamliner aircraft, and the global Covid-19 crises.

Strategic analysis, consisting of macro, industry and company-level analysis, revealed that consumer demand and the oil price pose a significant threat to the business performance of Norwegian. Moreover, industry analyses revealed that the nature of the aviation industry is highly competitive with a large number of airlines competing for the same customers making it increasingly difficult for Norwegian to turn a profit with a low contribution margin. Rules and regulations from the government also possess a significant impact on Norwegian, this is specifically related to the flight-seat-fine affecting customer demand through increased flight ticket prices.

Financial analyses, based on historical figures publicly available and a comparison with two other airlines, revealed that Norwegian has significantly higher growth than competing airlines but this is not displayed in their profitability. The liquidity and profitability numbers highlight Norwegian's weak business performance historically unlike its competitors. However, Norwegian has in the last year started to improve business performance, moving towards industry average.

Strategic and financial analysis, together with up-to-date reports and articles, forms the foundation of forecasting. The present value approach using the DCF method and WACC as a discount rate revealed a share price of 15,76 NOK. The Norwegian shares are according to these analyses undervalued by the 10th of March 2020.

# Table of Contents

# 1. Introduction

The aviation industry is easily affected by internal and external changes, making it an extremely volatile industry (Dhital, 2019). Large fluctuations in fuel prices, unpredicted crises, and increasing consumer demands are factors that force airline decision-makers to continually be innovative, adjust their strategies, and find new ways to cut costs and increase revenues (Distenfeld, u.d.). During the past three decades, the world has witnessed the rise of low-cost carriers (LCCs), transforming the industry, and making air travel more available for people (International Air Transport Association (IATA), u.d.).

One typically associates LCCs with its simplicity and a business model that focuses on reducing operational costs. More recently, some LCCs have tried to apply their low-cost model to long-haul routes, and there has been a lot of speculation if this is a suitable strategy for the low-cost airlines (Brook, 2019). One of the airlines that have applied their low-cost model to long-haul flights, is Norwegian Air Shuttle. The airline recently cut all its long-haul routes from Edinburg and its London to Singapore offering, which was one of the world's longest LCC services (ibid).

Norwegian Air Shuttle, hereby called Norwegian, has been going through extensive changes the recent years. Following years of focus on growth and many investments, they are a company characterized by a high amount of debt and are left with a small margin for errors (Asquith, 2019). Now set on harvesting on their growth, recent external factors have challenged Norwegian, resulting in a plunging share price (Milne, 2020).

The airline industry is an interesting industry to analyze, due to as previously mentioned, its volatile nature. Further, the choice of company to analyze has fallen on Norwegian, because of the ongoing changes and challenges happening to the airline.

## 1.2 Problem statement

As previously mentioned, the purpose of this paper is to find a fair value of Norwegian Air Shuttle ASA. Therefore, the primary problem statement is the following:

*What is Norwegian Air Shuttle´s fair share price per March 10th, 2020, and is the company over- or underpriced by the market?*

## 1.3 Methodology

### 1.3.1 Data Collection

The data used in the paper are publicly available data and information common for investors seeking to invest in a publicly-traded company. Moreover, as the data and information gathering implies, the information is investigated and analyzed from an investor´s point of view in order to find a fair share price of Norwegian Air Shuttle.

The strategic and financial analysis is based on critically reviewed data from the IFRS certified standard annual reports of Norwegian and competitors in the market. Also, academic valuation literature, financial databases (Thomson ONE Banker), statistical data, and articles on the subject gathered from a multitude of sources. The data gathered are cross-examined to increase the reliability and validity of the findings.

### 1.3.2 Design

The thesis consists of the following structure:

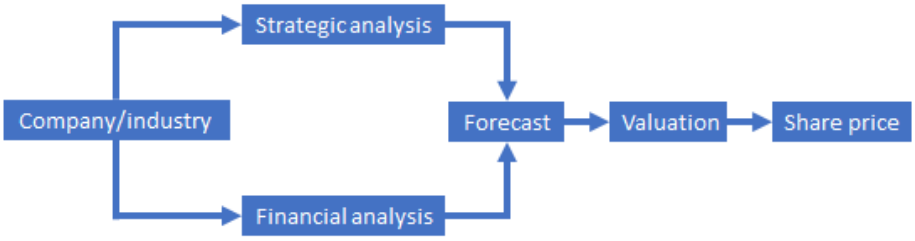



*Figure 1: Thesis structure (own creation)*

The first part of the thesis will provide an overview of the company and the aviation industry as a whole. In the analysis section, both a financial and strategic analysis will be conducted. Based on the analysis, a forecast formed that will be used in the valuation. When the valuation is done, the findings will indicate Norwegian Air Shuttle´s fair share price.

### 1.3.3 Demarcation

The information-stop for the thesis is set to the 10th of March, meaning any additional relevant reports or articles published after this date have not been taken into consideration. This is also set as the valuation date. Since all data collected has been public, there has been no direct contact with the company.

Due to procrastination of the 2019 annual report, several assumptions about the details in the income statement and balance sheet have been made. Moreover, currency fluctuations have not been taking into account. Therefore the exchange rates are presumed to be constant in the foreseeable future.

As Norwegian operates both in the short and long-haul market, they are subject to competition not only from the European market but also globally. When making comparisons, it has been focused on the European market, specifically SAS and Ryanair, and the European industry

averages. The airlines operate with different fiscal years, and it has been chosen to use the most recent data when comparing them. Further, when comparing, it has been taken use of peers' numbers and financial ratios from databases and other sources. These ratios may give some discrepancies but are considered as providing a comprehensive picture when performing the comparisons.

Norwegian Air Shuttle ASA is the parent in the Norwegian Group and it could be discussed if the financial statements of the parent company should be taken into account. The financial statements of the parent company illustrates more of the investments in subsidiaries (Norwegian Air Shuttle, 2019), while the financial statement for the group, both the airline and parent company is taken into account. It has been chosen to focus solely on the consolidated financial statements for the group, as this is said to cover the company to a significant degree (ibid.).
It is also assumed that the company only pays tax to Norway in the forecast period.

# 2. Company & Industry

## 2.1 Company

Norwegian Air Shuttle ASA (NAS for short), is a Norwegian commercial airline founded in 1993. At that time, they were offering routes on Norway's west coast with the turbo-prop aircraft Fokker 50 (Fokker Services, 2020) in cooperation with the Norwegian airline Braathens SAFE. They began operating as a low-cost carrier with bigger Boeing 737 aircraft in 2002, and today they are one of the world's biggest low-cost airlines with around 11000 employees. In 2019, more than 36 million customers chose to travel with the airline. Norwegian flies to more than 150 destinations in Europe, the US, South America, Asia, North Africa, the Middle East, and Canada with around 500 routes (Norwegian, 2020).

In 2003 Norwegian was listed on the Oslo Stock Exchange, and in 2005, then CEO and founder Bjørn Kjos announced their first year of making a profit. In 2019, founder Bjørn Kjos stepped down as Chief Executive Officer (CEO) after 17 years (E24, 2019). Bjørn Kjos is still one of Norwegians most prominent shareholders trough the company HBK Holding AS, which he owns with his business partner Bjørn H.Kise. HBK Holdings AS is the largest owner of Norwegian, holding 8,7 % per 31.12.2019 (Norwegian Air Shuttle, 2020). Earlier this year, Norwegian hired Jacob Schram as the new CEO.

The total number of shares outstanding was 163 558 377, with a total of 31260 shareholders per 31.12.2019 (Norwegian Air Shuttle, 2020). Table 1 shows an overview of the top 20 shareholders of Norwegian per 31.12.2019.

| Shareholder | Country | Number of shares | Per cent |
|---|---|---|---|
| HBK Holding AS | Norway | 14 229 015 | 8,7 % |
| Folketrygdfondet | Norway | 10 884 688 | 6,7 % |
| Keskinäinen eläkevakuutusyhtiö Varma | Finland | 7 600 000 | 4,6 % |
| Danske Capital (Norway) | Norway | 6 381 845 | 3,9 % |
| Pareto Asset Management AS | Norway | 4 052 733 | 2,5 % |
| City Finansiering AS | Norway | 3 946 041 | 2,4 % |
| DNB Asset Management AS | Norway | 3 678 057 | 2,2 % |
| Kite Lake Capital Mangement (UK) LLP | United Kingdom | 2 906 986 | 1,8 % |
| Sneisungen AS | Norway | 2 322 414 | 1,4 % |
| J.P. Morgan Securities plc | United Kingdom | 2 233 055 | 1,4 % |
| Bank of America Merrill Lynch (UK) | United Kingdom | 1 842 739 | 1,1 % |
| Nordnet Bank AB. | Norway | 1 608 859 | 1,0 % |
| Stenshagen Invest AS | Norway | 1 523 476 | 0,9 % |
| Delphi Fondene | Norway | 1 472 682 | 0,9 % |
| SEB Luxembourg - Custodian | Luxemborg | 1 386 658 | 0,8 % |
| Storebrand Kapitalforvaltning AS | Norway | 1 307 945 | 0,8 % |
| Hands-On Property AS | Norway | 1 143 753 | 0,7 % |
| Credit Suisse Securities (Europe) Limited | United Kingdom | 1 044 351 | 0,6 % |
| DNB Bank ASA | Sweden | 1 032 554 | 0,6 % |
| KLP Forsikring | Norway | 1 032 260 | 0,6 % |
| Top 20 shareholders | | 71 630 111 | 43,8 % |
| Other shareholders | | 91 928 266 | 56,2 % |
| **Total number of shares** | | **163 558 377** | **100 %** |

*Table 1: Shareholder overview per 31.12.2019. (Own creation & Norwegian's Q4 report 2019)*

Norwegians vision is «to be the leading long-haul low-cost airline in Europe operating as the engine of low-cost global growth and dominating the Nordic short-haul market" (Norwegian Air Shuttle, 2019, p. 9). The company´s current phase is likely to be characterized by a much slower growth rate and a focus on profitability. During a strategic review in 2018, the group developed four strategic objectives leading towards 2022:

- They will be the preferred airline for the customers that seek value for their money.
- Strengthen their position as the leading short-haul carrier in the Nordics.
- Return to sustainable profitability.

- With their long-haul operation as the primary support, they will build a global low-cost alliance. (Norwegian Air Shuttle, 2019)

At the same time, they rolled out their new core values, which consist of Innovation – Teamwork – Simplicity. The meaning behind these values is that they think creatively and always want to improve, that they respect and help each other to succeed and work hard to enhance the customer´s experience with Norwegian (ibid).

Norwegians share price has seen a decreasing trend. Figure 2 shows the share price development over the last years.


*Figure 2: Share price development. (Own creation, Norwegian's Annual Reports and Oslo Børs)*

### 2.1.1 Corporate structure

Norwegian Air Shuttle ASA is the parent company of the Norwegian group and is has its base in Fornebu, Norway. Furthermore, The Group consists of six wholly owned subsidiaries. Norwegian Air International Ltd. (NAI) based in Dublin, Ireland, United Kingdom and

Norwegian Air Norway AS (NAN) based in Fornebu, Norway, Norwegian UK (NUK) based in London, United Kingdom and Norwegian Air Argentina SA (NAA) which each holds an air operator's certificate (Norwegian Air Shuttle, 2020).

The asset companies which handle aircraft financing, leases, and ownership are structured in a group of subsidiaries based in Dublin, where Arctic Aviation Asset Ltd. is the parent company. The business area People and Services based in Fornebu, Oslo handles the group´s crew, the crew, and airline support and administrative functions. Other business areas consist of Norwegian Brand Ltd, Norwegian Reward, Norwegian Cargo AS, and Norwegian Holiday AS (Norwegian Air Shuttle, 2020).

### 2.1.2 Fleet

When Norwegian was founded in 1993, they operated with a fleet consisting of three Fokker 50 aircraft (Airfleets, n.d.). The company later decided to focus on Boeing aircraft, and in 2003, got rid of their six Fokker 50 aircraft in favor of Boeing 737-500, while waiting for the 737-300 aircraft (Planespotters, 2020). After acquiring the Swedish airline FlyNordic in 2007, Norwegian inherited eight McDonnell MD-80 aircraft (Arquivo, 2009). The McDonnell MD short-medium haul aircraft were later replaced with the Boeing 737 to achieve Norwegian´s aspiration of having a uniform 737 fleet (ibid). Norwegian later incorporated the newer version of the 737-300 aircraft, the 737-800 machine into their fleet, and then replaced the 737-300 completely in 2014 (Airfleets, n.d.).

In 2013 Norwegian introduced their first long-haul aircraft, the 787 Dreamliner, one owned and two leased (Norwegian Air Shuttle , 2020). The 787 Dreamliner is one of the most environmental-friendly aircrafts on the market today, with 20 percent lower emissions compared to similar long-haul aircraft (Norwegian Air Shuttle, 2020). Boeing´s newest short-medium haul aircraft-series, the 737 MAX, was first delivered to Norwegian in 2017. The 737 MAX 8 aircraft is 20 percent more fuel-efficient than the 737-800 (ibid.) and was initially thought to replace the 737-800 relatively fast. Due to the two fatal accidents involving the new aircraft October 29th,

2018 and, March 10th, 2019, the MAX 8 aircraft were grounded March 18th, 2019. (Kaplan, Austen, & Gebrekidan, 2019).

Today Norwegian operates one of the youngest and most fuel-efficient fleets in the world. The fleet consists of 156 aircraft per 31.12.2019, which include Boeing 737 aircraft and Boeing 787 Dreamliner, with an average fleet age of 4,6 years (Norwegian Air Shuttle, 2020).
At the end of 2019, Norwegian had 37 of the 787 Dreamliner aircraft in their fleet. The fleet also consists of 101 Boeing 737-800, which is their short-haul aircraft and 18 of the new, still grounded, Boeing 737 MAX 8 aircraft (Norwegian Air Shuttle, 2020). The grounding of the MAX 8 forced Norwegian to wet-lease additional aircraft to avoid cancellations and delay (Norwegian Air Shuttle, 2020).

## 2.2 Aviation industry

The demand for air transport has increased in the last decades, and in 2018 the airlines provided about 4 billion passengers the ability to travel on about 22000 routes (International Air Transport Association, 2019). According to a report by the International Air Transport Association (IATA), the world's airlines earned a consolidated net profit of $30 billion in 2018. The average cost of air transport is, in addition, half of what it was two decades ago (ibid).

Over the next 20 years, people that want to make use of air transport is set to double. The International Air Transport Association (IATA) predicts that in 2037 there will be 8,2 billion air travelers (International Air Transport Association, 2018), which intensifies the airline´s incentives to minimize their environmental footprint. Even though, since 2010, the carbon footprint per passenger has reduced by 2,8 % per year (International Air Transport Association, 2019), the industry is coming under more significant environmental pressure. The aggressive competition in the industry makes it easier to ensure affordable airfares to travelers, but this creates increasing strategic challenges for the airlines (ibid). Two of Norwegian´s main competitors are Scandinavian Airlines (SAS) and Ryanair Holdings plc (Ryanair), which will be presented in the following section.

### 2.2.1 SAS AB

Scandinavian Airlines (SAS), called initially the Scandinavian Airline System, was founded in 1946 and is the leading airline in Scandinavia (Nikel, 2020). SAS was initially a coordinated operation between Det Danske Luftfartselskab A/S (DDL), Det Norske Luftfartselskap (DNL) and Svensk Interkontinental Lufttrafik AB (SILA). At that time, Sweden owned 21,4 %, while Denmark and Norway owned 14,3 % each. In 2018 Norway sold the rest of its shares in SAS. SAS's business strategy mainly focuses on business travelers and people who travel frequently. Because Norway has a high air travel activity, it is regarded as SAS's most significant market (Departementenes sikkerhets- og serviceorganisasjon:, 2019). Even though SAS is not seen as a full low-cost carrier similar to Norwegian, it operates in the same market, making it Norwegian's main competitor. In 1997 SAS was part of establishing the first global airline alliance, Star Alliance, together with Lufthansa, United Airlines, Air Canada, and Thai Airways, which now consists of 28 airlines (Departementenes sikkerhets- og serviceorganisasjon:, 2019). The alliance makes it easier for SAS to offer a lot of different destinations in the world, as well as good connections on their routes (Star Alliance, u.d.).

During the fiscal year 2019, SAS carried about 28,5 million passengers (SAS Group, 2020), compared to Norwegians 36 million. The core strength of their business model is to offer more destinations and departures within Scandinavia than any other Nordic airline (SAS Group, u.d.). According to SAS, they are introducing broad changes to their fleet as part of their goal to reduce emissions and invest in the future. SAS's annual report for FY 2019 reports an aircraft fleet consisting of 55 owned, 70 leased and, 33 wet-leased aircraft (SAS group, 2020).

In 2018 SAS held 43 % of the available seats domestically in Norway, while Norwegian held 35 %. When considering the main routes domestically in Norway, the market is almost equally shared between Norwegian and SAS. When it comes to the international market, Norwegian has had a more exceptional organization globally than SAS, and comparing available seats to and from Europe, SAS was ranged number nine and Norwegian number eight (Departementenes sikkerhets- og serviceorganisasjon:, 2019)

### 2.2.2 Ryanair

Ryanair Holdings plc was founded in 1985 and is Europe's largest airline group. The group is the parent company of Buzz, Lauda, Malta Air and, Ryanair DAC. During 2019 they flew over 142 million passengers, and according to their annual report for 2019, they are ranked as the greenest, cleanest airline in Europe. Ryanair's low-fares business model and objective to be Europe's biggest scheduled passenger airline group make the airline one of Norwegians main competitors (Ryanair Holdings PLC, 2019).

When measured in available seats, Ryanair is Europe's biggest airline company and fifth most prominent in the world and measured by available seat kilometers (ASK), it is the 3rd biggest airline in Europe, as of 2018 (Departementenes sikkerhets- og serviceorganisasjon:, 2019). When it comes to profitability, Ryanair is the most profitable airline company compared to SAS and Norwegian, and even in Europe (Departementenes sikkerhets- og serviceorganisasjon:, 2019). This will be further looked into when comparing the airlines in the financial analysis.

As of June 30, 2019, Ryanair offered over 2500 scheduled short-haul flights per day with over 200 airports in Europe. The fleet consists of over 455 Boeing 737 aircraft and 20 Airbus A320 aircraft. The average age of Ryanair's fleet is approximately 6,5 years, and they see this getting lower with their latest aircraft order. (Ryanair Holdings PLC, 2019).

Ryanair's CEO, Michael O´Leary, which is known for his controversial comments on the airline industry, recently made a statement that Norwegian, being a rival carrier, has a business model that does not work and enormous debt that makes them doomed. Ryanair has, as in contrast to Norwegian and SAS, stayed out of the transatlantic market (Nikel, 2019).

# 3. Strategic Analysis

Strategic analysis is the process of researching an organization's business and the environment in which the organization operates, to formulate a strategy. It is an essential factor when formulating a plan that can help the organization reach its goals and objectives (Corporate Finance Institute, n.d.).

## 3.1 PESTEL

The PESTEL analysis is a tool used for analyzing and monitoring the macro-environmental factors that might impact an organization´s performance. PESTEL is an acronym for the Political, Economic, Social, Technological, Legal, and Environmental macro-environmental factors. The analysis is often used together with other analytical business tools such as SWOT or Porter's Five Forces (Intrafocus, n.d.).

### 3.1.1 Political and legal actors

Political factors are public decisions and legal regulations that can affect the industry as well as the individual firm. Norway is part of the European Economic Area (EEA), meaning that the country and its firms are underlying a lot of the EU´s laws and politics (EFTA, n.d.). It does not appear to be any political attitudes that suggest or give reason to believe that there will be any radical changes shortly.

Airline's running large scale operations in international airspace must follow an extensive fragmented legal framework. The legal framework might have an impact on the different parts of the airline's operations and practices. This is ranging from daily operations, employer training requirements including health, safety and environment, technical standards, certifications (flying permits), the use of international airspace and taxation, and environmental accountability. Rules about labor laws, consumer rights and, company laws differ in the individual countries.

The most substantial part of Norwegian Air Shuttle operations is located within the EU. The EU-collaboration is essential for stabilizing the legal and political frame. Moreover, Norway is a part of the European Economic Area (EEA), meaning that the country and its firms are underlying several EU's laws and politics.

The International Civil Aviation Organization (ICAO) has set a minimal criterion (SARPs) for the aviation industry that most countries have agreed to (ICAO, n.d.). The OECD-collaboration and the EU-collaboration are essential for the development of an open market and mutual conditions across the industry in this part of the world (OECD, n.d.). The collaboration reduces firm's vulnerability to political changes in different countries and competition regulations in the market.

The legal framework and political aspects are today highly fragmented across the world, with a multitude of unique agreements between the individual airlines and governments in different countries. Norwegian is assumed to be dependent on getting their certifications and adapt to current rules and regulation in specific countries for the preparation and launching of new flight routes in the future

International Air Transport Association (IATA) is the trade association for the world's airlines (IATA, n.d.). The association represents 290 airlines accumulating to 82 percent of the total air traffic (ibid.). Their priorities are safety and security, environmental sustainability, rebalancing the value chain, infrastructure for growth and government, taxes, and regulatory. Norwegian Air Shuttle is not a member of IATA, but there is reason to believe that the work the association does could have an impact on the airline.

The air passenger tax is a tax on the transport by air of passengers from Norwegian airports. Two separate taxation rates are depending on the final destination, where one is a low rate for journeys with final destination in Europe, and a high rate for journeys to other final destinations. The following groups are exempt from air passenger tax: airline employees on business travel, children under the age of two, transit and transfer passengers, and NATO.  Norwegian

enterprises, such as Norwegian Air Shuttle, must register as taxable business for the reporting and payment of air passenger tax (Skatteetaten, 2020).

### *Flight Safety*

The European Aviation Safety Agency (EASA) is the EU's aviation safety agency. The purpose of EASA is to ensure a high and uniform level of aviation safety in Europe. EASA is also contributing to equal competitive conditions and financial savings for the aviation industry (Luftfartstilsynet, n.d.). Norway, as a member of the EEA, is subject to EASA´s aviation safety requirements. Norwegians Air Shuttle´s number one operational priority is the safety. It is therefore unlikely that small changes in safety requirements in the future will affect Norwegian to any great extent (Norwegian, 2020).

### *Government regulations and restrictions during crises*

Communicable diseases that spread rapidly may have significant consequences for airlines. Epidemics and pandemics such as the Swine Flu, Ebola, and SARS led to different international travel bans and restrictions (UNWTO, n.d.). Even though air transport itself is considered to have a low risk of transmission (WHO, 2003), the air transport sector was one of the sectors taking the hardest hit during the SARS outbreak in 2003 (IATA, 2003). It is assumed that the epidemic cost global airlines 7 billion dollars (Pham, 2020).

Due to the recent outbreak of Covid-19, airlines have already collapsed (Slotnick, 2020), and companies like SAS, Finnair, and British Airways have canceled all flights to China (Lorentzen, 2020). The virus is spreading to Europe, and countries are closing borders to arrivals from Italy, which currently has the highest number of infected in Europe (Tritschler, 2020). The extent of the virus and how it will affect the aviation industry is still uncertain. However, IATA predicts that demand for air travel will fall for the first time in more than ten years, and airlines are looking at a 30-billion-dollar revenue loss due to the crises (BBC, 2020). As a result of increased travel and tourism, it is expected to experience epidemics and pandemics more frequently in the future (Jamal & Budke, 2020), making the aviation industry much exposed to these types of outbreaks.

### 3.1.2 Economic factors

Norway being a small country with a relatively unilateral business basis, it is very reliant on trade with other countries as well as the world economy (NHO, n.d.). The EEA-agreement ensures free trade between the affected countries, but for Norwegian Air Shuttle, there are also other factors having an impact on the company's economy.

#### *Gross domestic product*

"Global economic growth is a key driver of growth in air traffic demand" (Pearce & Smyth, 2007). However, air transportation can be a driver of economic growth, not only because the aviation industry provides jobs for a large number of people. Analysis suggests that there is a definite connection between growth in GPD and higher connections to networks (Pearce & Smyth, 2007), meaning that airlines by better connecting places and markets help provide economic growth. For Norwegian, this indicates that an increased GDP will lead to higher demand, and on the contrary that a decrease in GDP will lead to a lower demand for the products and services provided.

#### *Oil price*

Aviation fuel historically accounts for between 20 and 35 percent of airline expenditure (Statista, 2019). As the jet fuel price is highly correlated to the oil price (IATA, n.d.), it makes airlines worldwide exposed to the oil price. In 2018 aviation fuel accounted for 38 percent of Norwegian Air Shuttle operational expenses (Norwegian Air Shuttle, 2019), meaning that the future oil price will play a significant part in deciding the company´s share price.

#### *Foreign Exchange Rate*

The foreign exchange rate has a significant impact on airlines as they often have costs and liabilities in significant currencies like dollars or euros, but receive their revenue in local currency (Iqbal, Dennis, & An, 2018). This can be negatively enhanced during recessions or financial crises because countries with exotic currencies, like Norway, are becoming less attractive to invest in (Pettinger, 2017). As Norwegian Air Shuttle´s lease contracts are

denominated in USD, they are especially exposed to the NOK-USD rate (Norwegian Air Shuttle, 2019).

### 3.1.3 Social factors

Social factors include demographic, trends, cultural aspects, purchasing power, and other factors that influence consumer's behavior.

How people live, where they live, and the populations´ size can affect the demand. Population growth can be of interest for the airlines because it affects their customer base. In 2019 Norway´s population grew with 0,7 percent (SSB, 2020), while on world basis, the growth rate is roughly 1,05 percent yearly (Worldometer, n.d.). According to IATA passenger numbers will increase with 3,5 percent per annual until 8,2 billion passengers is reached in 2037 (IATA, 2018). It is anticipated that the Asia-Pacific region will account for the more than 50 percent of the growth (ibid). This outlook will have a positive impact on Norwegian´s long-haul flights, especially to south-Asia, but also to the US that is predicted to almost triple the number of passengers from 2017 to 2037 (ibid).

Lately, customer's demand for business and 1st class tickets has had the most substantial increase in Norway of all the countries in northern Europe (Mikalsen, 2019), this might be an opportunity that Norwegian can benefit from in long-haul flights with the Boeing Dreamliner.
Other social factors like trends are not likely to have a significant effect on Norwegian.

### 3.1.4 Environmental factors

As people are becoming more environmentally conscious over the years (Albeck-Ripka, n.d.), the emissions from the aviation industry are rapidly increasing (Topham, News, 2019). Emissions from commercial flights are growing nearly 70 percent faster than initially predicted by the UN (ibid). In 2019, Airbus forecasted that the total number of planes in the sky in twenty years will be double the amount of what we see today (Topham, News, 2019). This indicates that something must change in order to get emissions down. According to the Air Transport Action Group (ATAG), the aviation industry accounts for around 2 percent of the human-produced CO2

emissions in the world (ATAG, 2020). Fortunately, the aircraft are becoming more and more efficient, from the 1960s until today, jet aircraft have become more than 80 percent more fuel-efficient (ATAG, 2020). To help reduce carbon emissions, Norwegian are continuing to replace their fleet with more fuel-efficient aircraft, resulting in an almost brand-new fleet compared to competing airlines. (Norwegian Air Shuttle, 2020).

Scientists believe that due to climate change, the world will continue to see an increase in natural disasters worldwide. During the last 30 years, the frequency of natural disasters such as tornadoes, fire, tsunamis, and volcanic eruptions has tripled (Oxfam, n.d.). All of these propose a threat to the aviation industry because it forces planes to be grounded, flights are likely to be delayed or canceled, and whole areas might be closed for air traffic.

### 3.1.5 Technological factors

As a result of technological progress, aircraft are becoming more fuel-efficient, more aerodynamic, and better equipped (Koppula, 2018). The asset life expectancy of an aircraft is usually between 20 and 25 years (IATA, n.d.), and nowadays, we see many replacements from older planes to newer, more efficient aircraft. Air traffic worldwide is increasing with around 5 percent, while CO2 emission is decreasing with 3 percent showing that newer aircraft are making a difference (Aviation Benefits Beyond Borders, n.d.). This is also decreasing the fuel expense per aircraft. Using big data or other new technology in order to reduce maintenance time can also help decrease operational costs for the airline over time. Figure 3 shows fuel consumption per 100 kilometers per aircraft.

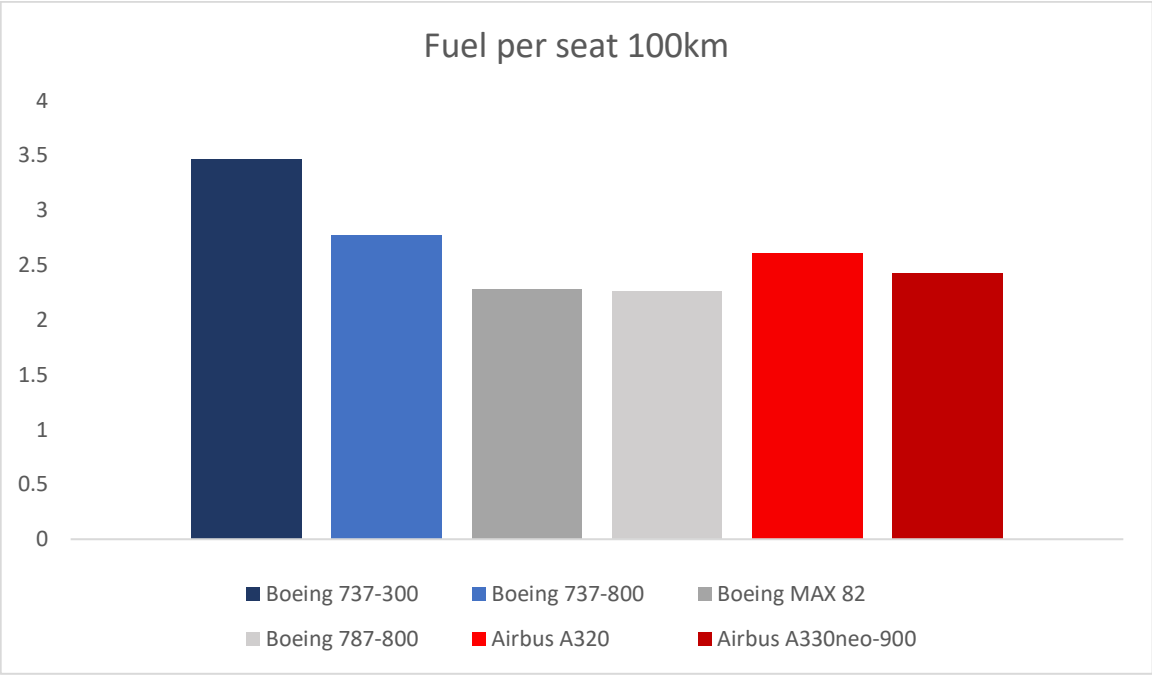



*Figure 3: Fuel per seat 100km (Own creation & Wikipedia, 2020)*

## 3.2 Porter´s Five Forces

Unlike the PESTEL, Porter´s five forces are analyzing industry-specific factors on a micro level. Michael Porter wanted to see how these "five forces" affected the company and its profitability (Porter, 2008).

### 3.2.1 Threats of new entrants

The airline industry is known for having high entry costs (A. Wolla & Backus, 2018). For example, the average price of a brand-new Boeing 737-800 in 2019 was 106 million dollars (I. Wagner, 2019). High capital investments become the result of these high entry costs and are assumed to be the reason as to why the threat of new entrants in the industry is expected to be significantly lower than in other industries.

### 3.2.2 Supplier power

The bargaining power of the suppliers is dependent upon the number of suppliers in the market and how easy it is for the company to switch supplier (Porter, 2008). The suppliers in the aviation industry consist of airplane manufacturers, airport operators, and suppliers of jet fuel.

Today, there are only two global airline manufacturers, Airbus, and Boeing (Boyd, 2018). Boeing, the oldest aircraft manufacturer in the world, was, until recently the market leader. However, as a result of the two 737 MAX8 crashes, Boeing was forced to ground all their MAX aircraft in March 2019 (Waldmeir, Pfeifer, Keohane, & Chazan, 2019). This resulted in bleak deliveries for Boeing and is therefore assumed to be the reason as to why Airbus in 2019 had 62,5 percent of the total market share (Forbes, 2020). As the rivals together are believed to have about 99% of the market share, their bargaining power is assumed to be high (Duddu, 2020). Besides, the switching cost related to the aircraft type is also high, as training-, maintenance- and flying costs are lower when using the same type of aircraft (Hun, Grimm, & Smith, 2005).

Jet fuel is a vital commodity in the aviation industry. As the oil is traded at a market price, it is primarily priced based on supply and demand. However, the product is also subject to geopolitical and weather-related developments (EIA, 2020). Hedging can be used to reduce risk or exposure to such developments. Buyers are initially considered to have no bargaining power, but on the basis that they can hedge the risk and expose it is considered to be neutral.

### 3.2.3 Threat of substitutes

Substitutes for aircraft is primarily other means of transport that can carry passengers e.g., high-speed trains, busses, cars, or ferries. However, most people might find this too time-consuming. Since aircraft are by far the most time-efficient way of traveling (if you are going a certain distance), there is a cost linked to switching, that cost being time. Therefore, the shorter travel distance, the higher threat of substitutes.

As a result of new technology, corporate travelers being physically present during business meetings or other conferences can be substituted by videoconferences. Applications like Skype and Microsoft Teams can, therefore, be viewed as substitutes.

### 3.2.4 Buyer power

The bargaining power of buyers is based on the consumers´ ability to push down prices or achieve better services. Airlines have sintense bargaining as they often place huge orders with the aircraft manufacturers (Porter, 2008). As the number of websites like Momondo, Skyscanner, and Expedia that compare flight prices between airlines is skyrocketing, it is becoming easier for the average passenger to pick an airline based on prices and timetables rather than loyalty. As a result of the low cost related to switching, the passengers´ bargaining power is assumed to increase. Despite, it is also essential to mention that due to the low profit-margin per passenger the individual passenger, itself has low bargaining power (E. Mazareanu, 2020).

### 3.2.5 Industry rivalry

The aviation industry is known for its low profit-margins due to the intense rivalry between the existing players (Wittmer, Bieger, & Müller, 2011). Norwegian is a low-cost airline, has initially been competing on price instead of services. This is something they want to change as they are moving their focus away from growth to profitability (Norwegian Air Shuttle , 2020). The high degree of rivalry between the players is likely to stay high in the future as the industry is in a mature stage, and competitors have a tendency to stay in business as long as possible due to the high investments required to get into aviation (Kasi, 2017).

## 3.3 Summary

Based on the analysis of the macro-environmental factors, it is clear which factors are most likely to have a significant impact on Norwegian. The social factors can influence Norwegian´s customer base as well as their behavior. The environmental factors such as people becoming more environmentally conscious might lead to stricter environmental requirements, and people are flying less. Fluctuations in the exchange rates and oil price are economic factors that are

likely to have the most significant influence on Norwegian´s future profitability as well as extraordinary global crises like the Covid-19 pandemic.

The analysis of the industry-specific factors displays several significant findings. The threat of new entrants is considered to be low due to the high entry costs. Moreover, supplier power is assumed to be high because of only two major actors in aircraft manufacturing. Jet fuel serves as a vital commodity in the aviation industry, and the bargaining power of buyers, the airlines, is assumed to be dependent upon their hedging strategy. There is an increased buyer power as new online services are making it possible for customers to compare flight ticket prices and make a purchase based on price. These new services and the low cost of switching airlines increases the buyer power of customers. Norwegian Air Shuttle is in the middle of changing its strategy from being a low-cost airline competing on price to competing on service. However, there is a reason to assume a high degree of rivalry between the players operating in the aviation industry due to the high costs of entering it.

# 4. Financial analysis

Now that Norwegian's strategic performance has been analyzed, it is necessary to analyze their financial performance. The primary purpose of this is to understand Norwegians driving forces behind value creation, as this maximizes value for their shareholders (Petersen & Plenborg, 2012). It is essential to understand Norwegian's past when forecasting in chapter 5. The first prospect of this chapter is to eliminate any noise to make sure that the financial statements are presented correctly. Then, the financial statements are reorganized for analytical purposes. Finally, the profitability of Norwegian is analyzed.

The principal source of data used in this chapter comes from Norwegians annual and quarterly reports. When determining the length of the analyzed period, Petersen and Plenborg state that growth, profitability, and risk often vary significantly over time, and to get a sense of these fluctuations in the assessment of underlying profitability, a more extended period is necessary (Petersen & Plenborg, 2012). It is therefore recommended in the historical analysis to include an entire business cycle. By doing this, both the upturns as well as the downturns can be covered (ibid.). Recent years, Norwegian has been characterized by substantial growth, and they have now entered a stage where they focus on profitability. The financial analysis, therefore, consists of the historical period between 2014 and 2019.

## 4.1 Reporting standards

According to Petersen and Plenborg: "Good accounting quality is defined as the financial reporting that provides the input which best supports the decision models used" (Petersen & Plenborg, 2012, p. 335). Further, an annual report is regarded as having higher quality when it provides accounting information that enables the user to make rational economic decisions. A financial analyst that is an equity-focused accounting user relies on historical accounting numbers to forecast future profitability. This implies that good accounting quality focuses on reported earnings that separate between transitory (special items) and permanent accounting items and that they rely on the same accounting policies over time (Petersen & Plenborg, 2012).

Norwegian prepares its financial statements in accordance with the International Financial Reporting Standards (IFRS) and IFRIC Interpretations, as adopted by the EU. In the independent auditor's report done by Deloitte AS, in the annual report for 2018, which is also the latest available, their opinion is that the financial statements are prepared in accordance with the law and regulations. They also report that the financial statements give a true and fair view of Norwegians financial position as of 31.12.2018 (Norwegian Air Shuttle, 2019). It is therefore assumed that Norwegian's financial statements are consistent with what is seen as good accounting quality and will not be discussed further, other than adjusted for special items, which is done in section 4.3.3.

### 4.1.1 IFRS 16

In 2016, the International Accounting Standards Board (IASB) published the new accounting standard, IFRS 16 Leases. The new standard replaces IAS 17 Leases (and related interpretations) (International Accounting Standards Board, 2016), and is effective for periods beginning on or after 1st of January 2019 (Deloitte, 2016).

For lessees, this means most leases on the balance sheet are put under a single model, similar to the existing finance lease model (Deloitte, 2016). It will be recognized a right of use asset and a lease liability, and consequently, the depreciation and interest expense that follows (ibid.). The discount rate used when measuring the lease liability is the rate that is implicit in the lease, but this requires knowledge of the underlying asset's fair value. When this is not obtainable, the incremental borrowing rate, which the lessee would pay to borrow necessary funds over a similar term and security, is used (ibid.).

Airlines have different funding structures, with some carriers financing them through longer or shorter operating leases. For airlines with sizeable aircraft operating lease portfolios, the new standard will likely increase their balance sheets extensively (Deloitte, 2016). IFRS 16 redefines a lot of commonly used financial metrics, for instance, EBITDA and gearing ratio (PwC, 2016). From a global lease capitalization study done by PwC, they assess that the new lease standard

will have a median increase in debt on 47 % for the airline industry, as well as a 33 % median increase in EBITDA (ibid.). Further, it means that it will be easier to compare companies with peers, but it can also affect borrowing costs, how stakeholders look at the company, credit ratings, and covenants (ibid.).

The new accounting standard for leases allows several adoption approaches. Norwegian has applied the modified retrospective approach, where the right of use assets are being measured with an amount equal to the lease liability at the recognition date. The lease liability is calculated as the present value of remaining lease payments under the lease contracts and discounted by the incremental borrowing rates (Norwegian Air Shuttle, 2020).

Because aircraft leases are such a significant part of Norwegian's operations, the adoption of IFRS 16 will have a significant impact on the financial statements in 2019 and the forecast period going forward, which is done in chapter 5. Because this accounting standard does not take effect before 2019, the historical period 2014-2018 needs to be adjusted for the capitalized operating lease, which is dealt with in section 4.3.2.

## 4.2 Presentation of the financial statements

Table 2 displays the consolidated income statement from the period 2014-2019, as reported by Norwegian. The numbers are reported in NOK 1000.

| NOK 1 000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Passenger transport | 16 254 622 | 18 505 762 | 21 095 595 | 24 719 086 | 32 560 100 | 35 216 300 |
| Ancillary revenue | 2 727 439 | 3 275 289 | 3 928 978 | 4 822 516 | 6 266 600 | 6 651 500 |
| Other revenue | 557 978 | 710 096 | 1 029 952 | 1 406 661 | 1 438 900 | 1 654 100 |
| **Total operating revenues** | **19 540 039** | **22 491 147** | **26 054 525** | **30 948 263** | **40 265 600** | **43 521 900** |
| Sales and distribution expenses | 469 111 | 612 286 | 758 698 | 946 074 | 878 500 | - |
| Aviation fuel | 6 321 053 | 5 184 475 | 5 052 906 | 7 339 171 | 12 562 200 | 12 607 100 |
| Aircraft leases | 1 845 940 | 2 213 251 | 2 841 859 | 3 889 680 | 4 354 100 | - |
| Airport charges | 2 723 910 | 2 949 313 | 3 303 841 | 3 760 075 | 4 373 000 | 4 140 300 |
| Handling charges | 1 854 844 | 2 336 785 | 2 995 608 | 3 685 213 | 5 200 500 | 5 260 200 |
| Technical maintenance expenses | 1 290 035 | 1 716 547 | 1 864 985 | 2 706 549 | 3 493 700 | 3 379 200 |
| Other aircraft expenses | 855 231 | 826 391 | 1 206 447 | 1 694 830 | 2 102 100 | - |
| Payroll and other personnel expenses | 3 208 986 | 3 433 704 | 3 971 412 | 5 316 300 | 6 664 600 | 6 817 500 |
| Depreciation and Amortization | 748 137 | 1 133 286 | 1 295 826 | 1 405 074 | 1 667 600 | 6 457 500 |
| Impairment | - | - | - | 655 904 | - | - |
| Other operating expenses | 1 049 577 | 1 263 185 | 1 519 111 | 1 983 742 | 1 825 900 | 4 849 900 |
| Other losses/(gains) - net | 583 751 | 474 150 | -576 553 | -432 200 | 994 100 | -845 800 |
| **Total operating expenses** | **20 950 575** | **22 143 373** | **24 234 140** | **32 950 412** | **44 116 300** | **42 665 900** |
| **Operating profit** | **-1 410 536** | **347 774** | **1 820 385** | **-2 002 149** | **-3 850 700** | **856 000** |
| Interest income | 51 681 | 74 181 | 43 623 | 71 296 | 117 500 | 204 500 |
| Interest expense | -302 653 | -463 348 | -685 990 | -958 615 | -1 159 500 | -3 074 800 |
| Other financial income (expense) | -23 167 | 12 989 | 117 513 | 35 285 | 2 273 900 | 340 300 |
| Share of profit from associated companies | 57 631 | 103 441 | 212 801 | 291 944 | 128 500 | -13 600 |
| **Profit (loss) before tax** | **-1 627 044** | **75 037** | **1 508 332** | **-2 562 239** | **-2 490 300** | **-1 687 600** |
| Income tax expense (income) | -557 284 | -171 114 | 373 353 | -768 496 | -1 036 000 | -78 500 |
| **Profit (loss) for the year** | **-1 069 760** | **246 151** | **1 134 979** | **-1 793 743** | **-1 454 300** | **-1 609 100** |

*Table 2: Consolidated income statement 2014-2019 (Own creation, Norwegian's annual & quarterly reports)*

Both the passenger transport revenue and ancillary revenue have increased substantially over the analyzed period, but at the same time, the operating expenses have more than doubled since 2014. Negative operating profits characterize both 2017 and 2018. What is also essential to pay attention to is that after the adoption of IFRS 16 as of 1. January 2019, the aircraft lease expense is replaced by the depreciation of the right of use assets and an interest cost. The adoption of IFRS 16, therefore, has a positive effect on the operating profit in the year 2019; likewise, the financial items have a negative effect. The effects of IFRS 16 and calculations of the right of use asset will be dealt with more in detail in chapter 5.

Table 3 and 4 show the consolidated statements of financial position as reported by Norwegian in the analyzed period 2014-2019. The numbers are reported in NOK 1000.

| NOK 1 000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| **ASSETS** | | | | | | |
| **Non-current assets** | | | | | | |
| Intangible assets | 206 826 | 206 675 | 198 260 | 201 383 | 212 300 | 198 600 |
| Deferred tax asset | 518 915 | 593 625 | 241 499 | 1 018 900 | 2 673 800 | 2 672 000 |
| Aircraft, parts and installations on leased air | 12 527 932 | 18 507 706 | 22 571 775 | 25 861 883 | 31 064 200 | 27 392 000 |
| Total right of use assets | - | - | - | - | - | 33 578 400 |
| Equipment and fixtures | 83 687 | 79 508 | 88 361 | 90 458 | 211 400 | - |
| Buildings | 252 236 | 285 674 | 283 236 | 279 462 | 269 400 | - |
| Financial lease asset | 19 232 | | | | | |
| Derivative financial instruments | - | - | 114 476 | 31 016 | 3 500 | - |
| Financial assets available for sale | 82 689 | 82 689 | 82 689 | 2 689 | - | - |
| Investment in Associate | 223 594 | 328 127 | 609 110 | 832 561 | 70 300 | - |
| Prepayment to aircraft manufacturers | 4 102 664 | 5 939 281 | 7 156 303 | 5 219 372 | 8 561 300 | 4 946 600 |
| Fixed asset investment | - | - | - | - | - | 1 485 000 |
| Other fixed asset owned | | | | | | 461 600 |
| Other receivables | 421 060 | 501 811 | 623 606 | 789 974 | 1 142 400 | - |
| **Total non-current assets** | **18 438 835** | **26 525 096** | **31 969 315** | **34 327 698** | **44 208 600** | **70 734 200** |
| **Current assets** | | | | | | |
| Assets held for sale | - | - | - | - | 850 600 | 1 204 500 |
| Inventory | 82 851 | 104 142 | 102 465 | 101 890 | 167 300 | 175 700 |
| Trade and other receivables | 2 173 522 | 2 550 716 | 3 013 978 | 4 357 571 | 6 752 600 | 10 132 900 |
| Derivative financial instruments | - | - | 353 246 | 615 734 | 32 600 | - |
| Financial assets available for sale | - | - | - | 80 000 | - | - |
| Investments in financial assets | - | - | - | - | 2 051 800 | - |
| Cash and cash equivalents | 2 011 139 | 2 454 160 | 2 323 647 | 4 039 775 | 1 921 800 | 3 095 600 |
| **Total current assets** | **4 267 512** | **5 109 018** | **5 793 336** | **9 194 970** | **11 776 700** | **14 608 700** |
| **TOTAL ASSETS** | **22 706 347** | **31 634 114** | **37 762 651** | **43 522 668** | **55 985 300** | **85 342 900** |

*Table 3: Consolidated statement of financial position 2014-2019, Assets (Own creation, Norwegian's annual & quarterly reports)*

| NOK 1 000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| **EQUITY AND LIABILITIES** | | | | | | |
| **Equity** | | | | | | |
| Share capital | 3 516 | 3 576 | 3 576 | 3 576 | 4 500 | - |
| Share premium | 1 093 549 | 1 231 632 | 1 231 631 | 1 231 631 | 2 686 700 | - |
| Other paid-in equity | 87 221 | 94 362 | 110 621 | 127 769 | 132 900 | - |
| Other reserves | 455 099 | 876 192 | 773 112 | 641 437 | 1 011 700 | - |
| Retained Earnings | 468 866 | 759 550 | 1 919 266 | 81 666 | - 2 148 600 | - |
| Shareholders equity | 2 108 251 | 2 965 312 | 4 038 206 | 2 086 079 | 1 687 200 | 4 101 100 |
| Non-controlling interest | - | - | 10 770 | 12 328 | 17 300 | 23 800 |
| **TOTAL EQUITY** | **2 108 251** | **2 965 312** | **4 048 976** | **2 098 407** | **1 704 500** | **4 124 900** |
| **Non-current liabilities** | | | | | | |
| Pension obligation | 201 883 | 134 516 | 107 379 | 149 661 | 146 500 | 158 348 |
| Provision for periodic maintenance | 835 480 | 1 177 513 | 1 376 465 | 2 679 400 | 3 187 500 | 3 654 500 |
| Other non-current liabilities | - | 80 338 | 85 166 | 137 121 | 145 200 | 785 452 |
| Deferred tax | 169 851 | - | - | - | 614 500 | - |
| Financial lease liability | 3 227 | - | - | - | - | - |
| Borrowings | 9 950 228 | 16 543 405 | 18 706 062 | 22 060 271 | 22 530 000 | 52 593 500 |
| *of which lease liabilities* | | | | | | *30 079 800* |
| Derivative financial instruments | - | - | 27 939 | - | 38 100 | - |
| **Total non-current liabilities** | **11 160 669** | **17 935 772** | **20 303 011** | **25 026 453** | **26 661 800** | **57 191 800** |
| **Current liabilities** | | | | | | |
| Short term part of borrowings | 3 330 387 | 3 041 388 | 4 768 813 | 4 244 486 | 11 309 100 | 8 784 100 |
| *of which lease liabilities* | | | | | | 4 194 500 |
| Trade and other payables | 2 680 445 | 2 862 566 | 3 881 684 | 5 568 261 | 8 011 800 | 9 135 600 |
| Air traffic settlement liabilities | 2 965 427 | 4 014 428 | 4 666 212 | 6 493 615 | 6 907 300 | 6 106 500 |
| Derivative financial instruments | 458 958 | 782 523 | 86 305 | 41 819 | 1 359 400 | - |
| Tax payable | 2 210 | 32 125 | 7 650 | 49 627 | 31 400 | - |
| **Total current liabilities** | **9 437 427** | **10 733 030** | **13 410 664** | **16 397 808** | **27 619 000** | **24 026 200** |
| **TOTAL LIABILITIES** | **20 598 096** | **28 668 802** | **33 713 675** | **41 424 261** | **54 280 800** | **81 218 000** |
| **TOTAL EQUITY AND LIABILITIES** | **22 706 347** | **31 634 114** | **37 762 651** | **43 522 668** | **55 985 300** | **85 342 900** |

*Table 4: Consolidated statement of financial position 2014-2019, Equity and Liabilities (Own creation, Norwegian's annual & quarterly reports)*

The most significant part of Norwegians assets, as seen in table 3, is related to their tangible assets, specifically aircraft, parts, and installations on leased aircraft and prepayment to aircraft manufacturers. Norwegian's assets have more than doubled during the analyzed period, which is characterized by many investments to their fleet. These assets, which in large part consists of owned aircraft, is financed mainly through non-current borrowings. Compared to the vast increase in assets, there has been a decrease in equity the last years, and therefore the debt to equity ratio has increased. In 2019, there is a relatively big increase in equity due to a rights issue and a private placement (Norwegian Air Shuttle, 2020). The adoption of IFRS 16 in the year

2019 also impacts the balance sheet significantly now that the right of use asset and related lease liability is added to the balance sheet. Following this, the total assets and liabilities increased with almost NOK 30 billion in 2019. Due to the lack of information from the year 2019, included in the fixed asset investment are investments in financial assets, investment in associates, and other receivables. Included in fixed assets owned in 2019 are equipment, fixtures, and buildings.

## 4.3 Reorganization of the financial statements

Norwegian's reported financial statements are not organized for a well-suited assessment of their operating performance and value creation. Both the balance sheet and income statement mixes operating items, nonoperating items, and sources of financing. To be able to develop a robust valuation model, the reported financial statements have to be reformulated for analytical purposes (Koller, Goedhart, & Wessels, 2015). This is done by separating the operating and nonoperating accounting items, which gives us better knowledge of the sources of value creation in Norwegian. First, the income statement will be reformulated for analytical purposes, and the classifications of the different items will be explained. Secondly, the balance sheet will be reorganized so that invested capital, nonoperating items, and sources of financing can be calculated consistently. Finally, earnings before interest and taxes (EBIT) will be adjusted for one-time charges and operating cash tax, so that net operating profit less adjusted taxes (NOPLAT) can be defined.

### 4.3.1 The reorganized income statement

An investor will consider operating profit as the primary source of value creation; hence it requires that the operating accounting items in the analytical income statement (Petersen & Plenborg, 2012) is isolated. Table 5 shows the reorganized income statement for the period being analyzed.

| NOK 1000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Passenger transport | 16 254 622 | 18 505 762 | 21 095 595 | 24 719 086 | 32 560 100 | 35 216 300 |
| Ancillary revenue | 2 727 439 | 3 275 289 | 3 928 978 | 4 822 516 | 6 266 600 | 6 651 500 |
| Other revenue | 557 978 | 710 096 | 1 029 952 | 1 406 661 | 1 438 900 | 1 654 100 |
| **Total operating revenue** | **19 540 039** | **22 491 147** | **26 054 525** | **30 948 263** | **40 265 600** | **43 521 900** |
| Sales and distribution expenses | 469 111 | 612 286 | 758 698 | 946 074 | 878 500 | - |
| Aviation fuel | 6 321 053 | 5 184 475 | 5 052 906 | 7 339 171 | 12 562 200 | 12 607 100 |
| Aircraft leases | 1 260 079 | 1 511 346 | 1 778 981 | 2 610 509 | 2 798 900 | - |
| Airport charges | 2 723 910 | 2 949 313 | 3 303 841 | 3 760 075 | 4 373 000 | 4 140 300 |
| Handling charges | 1 854 844 | 2 336 785 | 2 995 608 | 3 685 213 | 5 200 500 | 5 260 200 |
| Technical maintenance expenses | 1 290 035 | 1 716 547 | 1 864 985 | 2 706 549 | 3 493 700 | 3 379 200 |
| Other aircraft expenses | 855 231 | 826 391 | 1 206 447 | 1 694 830 | 2 102 100 | - |
| Payroll and other personnel expenses | 3 203 564 | 3 430 492 | 3 968 052 | 5 314 143 | 6 660 800 | 6 813 700 |
| Depreciation and Amortization | 748 137 | 1 133 286 | 1 295 826 | 1 405 074 | 1 667 600 | 6 457 500 |
| Impairment | - | - | | 655 904 | - | - |
| Other operating expenses | 1 049 577 | 1 263 185 | 1 519 111 | 1 983 742 | 1 825 900 | 4 849 900 |
| Other losses / (gains) net | 583 751 | 474 150 | -576 553 | -432 200 | 994 100 | -845 800 |
| **Total operating expenses** | **20 359 292** | **21 438 256** | **23 167 902** | **31 669 084** | **42 557 300** | **42 662 100** |
| **EBIT** | **-819 253** | **1 052 891** | **2 886 623** | **-720 821** | **-2 291 700** | **859 800** |
| Interest income | 51 681 | 74 181 | 43 623 | 71 296 | 117 500 | 204 500 |
| Interest expense | -302 653 | -463 348 | -685 990 | -958 615 | -1 159 500 | -1 337 600 |
| Other financial income (expense) | -23 167 | 12 989 | 117 513 | 35 285 | 2 273 900 | 340 300 |
| Share of profit (loss) from associated companies | 57 631 | 103 441 | 212 801 | 291 944 | 128 500 | -13 600 |
| Implied interest expense on operating leases | -585 861 | -701 905 | -1 062 878 | -1 279 171 | -1 555 200 | -1 737 200 |
| Nonoperating pension expense | -5 422 | -3 212 | -3 360 | -2 157 | -3 800 | -3 800 |
| **Profit (loss) before tax** | **-1 627 044** | **75 037** | **1 508 332** | **-2 562 239** | **-2 490 300** | **-1 687 600** |
| Income tax expense (income) | -557 284 | -171 114 | 373 353 | -768 496 | -1 036 000 | -78 500 |
| **Profit (loss) for the year** | **-1 069 760** | **246 151** | **1 134 979** | **-1 793 743** | **-1 454 300** | **-1 609 100** |

*Table 5: Reorganized income statement (Own creation & Norwegian's annual reports)*

As observed in table 5, it is not clear which reclassifications have been done. Some of the main items will, therefore, be explained more in detail, and discussed whether they are classified as operating or nonoperating.

*Revenues* consist of passenger revenue, ancillary revenue, and other revenue. Passenger revenue comprises ticket sales, while ancillary revenue comprises sales of ticket-related products, and services like revenue from baggage sales, seating and premium upgrades. Passenger revenue and ancillary revenue are related to the operating side of Norwegian and is therefore calculated as a part of operations. Other revenue comprises third party revenue, like wet-lease, cargo, and revenue from business activities in subsidiaries, which are not airlines. Wet-lease and cargo is an

indirect part of Norwegian's operations and is therefore identified as operating items. Income from non-airline business activities in subsidiaries is not further detailed, and therefore also chosen to be considered as part of the operating side.

*Operational expenses* in Norwegian's income statement consists of costs that are mainly related to the primary activities and are likewise classified as part of operations. However, the payroll and other personnel expenses contain a pension expense. The pension expense consists of nonoperating items like interest costs and returns on plan assets. These have been removed from payroll and other personnel expenses. There will, therefore, be a reduction in operating expenses and, likewise, an increase in financial expenses. As it is not disclosed detailed information about the pension expense in the quarterly reports in 2019, it is assumed that nonoperating items included in pension expenses will be equal to that of 2018, due to the fact that they have stayed relatively constant. Norwegian also leases a large number of aircraft, and therefore they report a lease expense in their income statement. Because the operating lease is a common type of off-balance sheet item, and Norwegian leases a large part of their fleet, the operating profits will be exaggeratedly low. This is due to the implicit interest expense embedded in the rental expense. In the reorganized income statement, the implied interest expense on operating leases has therefore been removed from the aircraft lease expense and similarly moved to financial expenses. Calculation of this and the related capitalization of the operating leases are dealt with in section 4.3.2 when reorganizing the balance sheet items. In 2019, following the accounting standard IFRS 16, the interest expense on leases was already accounted for in the financial items.

*Share of profit (loss) from associated companies mainly* consists of ownership in Norwegian Finans Holding ASA (NOFI), which owns 100 % of the shares in Bank Norwegian AS. A small part of this item is accounted to the joint venture with OSM Aviation Ltd. in Cyprus. According to the annual report 2018 the airline reports: "*The investment was presented according to the equity method as an investment in associated companies until March 2018, when the Chair of the Board of Directors resigned from the Board of NOFI and its subsidiary Bank Norwegian. Following the loss of significant influence in NOFI, use of the equity method was discontinued. From March 2018 onwards, the ownership in NOFI is recognized as a financial investment*

*according to IFRS 9 and subsequent changes in fair value are recorded in other comprehensive income*" (Norwegian Air Shuttle, 2019, p. 16). Norwegian purchases crew management services from the associated company OSM Aviation Ltd. and related subsidiaries, and it could be discussed if this should be considered as part of operations. In 2019 Norwegian sold its remaining shares in Norwegian Finans Holding (Norwegian Air Shuttle, 2020). As the shares in Bank Norwegian AS are assumed not to be a direct part of Norwegian's operations as an airline, the ownership in NOFI is considered as a financial item also the years before the recognition as a financial investment. This whole post will be placed under financial activities, to stay consistent.

### 4.3.2 The reorganized balance sheet

The balance sheet needs to be reorganized into invested capital, nonoperating items, and sources of financing. Invested capital can be calculated either by the operating method, which is operating assets, including off-balance sheet items like the capitalized operating lease, minus operating liabilities, or the financing method, which is debt plus equity. Total funds invested equals invested capital plus non-operating assets. Sources of financing are calculated by adding together interest-bearing debt and debt equivalent, including capitalized operating leases and equity and equity equivalents (Koller, Goedhart, & Wessels, 2015). For this to be done, the operating and nonoperating assets and liabilities need to be distinguished from each other.

In the following segment, the classifications between some of the operating and nonoperating items will be explained. As previously mentioned, the annual report for the year 2019 has not been published. Because the quarterly reports do not give sufficient information about some of the items, some assumptions have been made, and they will be further discussed with regards to the relevant item.

#### *Operating asset and liabilities*

*Current operating assets* include inventory, trade and other receivables, and operating cash as these are necessary for the ongoing operations of Norwegian. In Norwegian's annual reports, cash and cash equivalents include cash in hand and the bank, as well as short-term deposits with

an original maturity of three months or less (Norwegian Air Shuttle, 2019). As they do not disclose how much cash that would be necessary for operations, Koller et al. recommend that 2 % of revenue would be a good proxy for working cash (Koller, Goedhart, & Wessels, 2015). It is therefore chosen to classify 2 % of the cash and cash equivalent as operating cash, while the remaining are classified as excess cash. Current operating liabilities consist of tax payable, air traffic settlement liabilities, and trade and other payables. These are all relevant to the ongoing operations. Taking the current operating assets minus current operating liabilities, we are left with the net operating working capital.

*Tangible assets* include owned aircraft, parts and installations on leased aircraft, equipment and fixtures, buildings, prepayment to aircraft manufacturers and right of use assets aircraft and parts in the year 2019. These items are regarded as being necessary for Norwegian's operations and are therefore classified accordingly.

*Intangible assets* include software, goodwill, and other intangibles. Capitalized software is related to external consulting fees, systems for bookings and ticket-less travels, various sales portals, back office, and maintenance systems. These costs are amortized over their estimated useful lives. Goodwill and other intangibles include, among other things, intellectual property rights, purchase of slots, and branding. Goodwill and other intangibles will be regarded as one line item and as having indefinite useful lives and, therefore, not subject to amortization (Norwegian Air Shuttle, 2019). Intangible assets are tested for impairment, and no need for impairment has been identified in the analyzed period. All intangible assets are regarded as being part of operations. Intangible assets in 2019 are calculated, excluding deferred tax assets of NOK 2,672 million. It is then further split into software estimated equal to the amount in 2018, and the remaining being goodwill and other intangibles.

*Other receivables* include the trade and other receivables plus prepayments that are considered to be non-current, and are further classified as operating assets. Because of the lack of information on the different items in the year 2019, it has been made an assumption regarding the items included in fixed-asset investment in the quarterly report 2019. Fixed asset investment includes

the following items: investment in financial assets, investment in associates, and other receivables. Since other receivables have comprised the most considerable amount of this prior years, it is assumed that other fixed asset investment mostly consists of other receivables, and is therefore placed under operating assets.

### Capitalized operating lease

Norwegian's owned aircraft are primarily financed through long-term borrowings. Accordingly, the owned aircraft and corresponding debt are recorded on the balance sheet, while the interest is deducted from operating profit to calculate net income. Norwegian, at the same time, leases a substantial part of their fleet, and the leases include payments that are recognized as a rental expense in the income statement. Because the operating leases, in reality, includes an implicit interest expense because of the lease-based debt, the operating profits will be artificially low. At the same time, capital productivity will be artificially high because the leased asset is not accounted for in the balance sheet (Koller, Goedhart, & Wessels, 2015). As mentioned in section 4.1.1 with regards to the new accounting standard IFRS 16, as of 1st of January 2019, there is no longer any classification between financial and operational lease. Nevertheless, in the past years 2014-2018, Norwegian's fleet consists of a large number of leased aircraft. This means that prior to the adoption of IFRS 16, the real economics of operating leases is not reflected in their financial statements.

To see the reflection of the real economics of the operating lease, the leased asset needs to be capitalized for this period, and the long-term debt needs to be adjusted accordingly. The operating profit will also be adjusted by removing the implicit interest in the rental expense and added to the financial activities, which was done when reorganizing the income statement in section 4.3.1.

As Norwegian does not disclose the value of their leased assets in the annual reports, Koller et al. discuss various methods on how to estimate it. One possibility is to use the rental expense and multiply it by a capitalization rate, which is commonly used in the investment banking community, where they approximate the asset value by multiplying the rental expense by eight

times (Koller, Goedhart, & Wessels, 2015). Analysts have historically used a 7x multiple of the annual aircraft operating lease cost as a proxy for debt relating to these leases, to make airlines more comparable (Deloitte, 2016). Nevertheless, this does not take into account the difference between airlines and how they structure their leases, especially the duration of the lease contracts (ibid.).

Another possibility is to use the rental expense, the cost of secured debt, and an estimated asset life with the following formula to calculate the asset value:

$$Asset\ Value_{t-1} = \frac{Rental\ Expense_t}{k_d + \frac{1}{Asset\ Life}}$$

*Equation 1: Formula 20.2 estimating operating lease, asset value (Koller, Goedhart and Wessesls (2015))*

Based on the available data, it has been chosen to calculate the asset value using this method. According to Norwegian, the lease agreements on the Boeing 737 aircraft last between 3 and 12 years, and for the Boeing 787 aircraft, it lasts 12 years. Based on this, it is assumed an average asset life on the aircraft to be eight years, also because of the substantial amount of leased Boeing 737-800 aircraft in the fleet. The rental expenses are found in the reported income statements, and the rental expense for 2019, used to calculate the asset value in 2018, is found in the IFRS 16 effects in the interim 4th quarter report for 2019. The cost of debt applied is the effective interest rate disclosed each year in the annual reports, recognized as financial items, and capitalized borrowing cost (Norwegian Air Shuttle, 2019).

Table 6 shows the calculations of the asset values and corresponding lease liability the past years 2014-2018. The operating lease in 2019 is recognized as a right of use asset and lease liability following IFRS 16, and it is reported from the interim quarter 4 2019 report when reorganizing the balance sheet items.

| NOK 1 000 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Leasing expense t | 2 213 251 | 2 841 859 | 3 889 680 | 4 354 100 | 5 443 200 |
| NOK 1 000 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Leasing Expense (t+1) | 2 213 251 | 2 841 859 | 3 889 680 | 4 354 100 | 5 443 200 |
| Effective interest rate % | 4,50 % | 4,10 % | 4,70 % | 5,20 % | 5,00 % |
| **Asset value** | **13 019 124** | **17 119 633** | **22 614 419** | **24 599 435** | **31 104 000** |
| | | | | | |
| Interest expense | 585 861 | 701 905 | 1 062 878 | 1 279 171 | 1 555 200 |
| Depreciation | 1 627 390 | 2 139 954 | 2 826 802 | 3 074 929 | 3 888 000 |
| **Sum** | **2 213 251** | **2 841 859** | **3 889 680** | **4 354 100** | **5 443 200** |
| | | | | | |
| **Average Asset life** | **8** | | | | |

*Table 6: Capitalized operating lease (Own creation & Norwegian's annual report)*

*Provision for periodic maintenance* is related to maintenance obligations on their leased aircraft and is therefore considered to be an operating liability. This item is not disclosed in 2019, nevertheless, Norwegian reports in the 4th quarter 2019 report that the increase in non-current liabilities by NOK 467 million is due to an increase of provision for periodic maintenance. It is therefore assumed that provision for period maintenance increases by this amount in 2019.

### *Financial assets and liabilities*

*Investment in associates* consists mainly of the ownership in Norwegian Finans Holding ASA (NOFI) until the year 2018, when it is reallocated as an investment in financial assets. A smaller part of this item also comprises the joint venture with OSM Aviation Ltd. As previously discussed in the reorganized income statement, it has been chosen to classify this as part of the financing activities to stay consistent. In 2019, investment in associates was reported under fixed asset investments. As previously mentioned, after the sale of all shares in NOFI, investment in associates is, therefore, put under other receivables. This is because it now represents a small part of fixed asset investments.

*Norwegians net deferred tax assets* are based on unused tax loss carry-forwards and temporary differences in assets and liabilities (Norwegian Air Shuttle, 2019). Deferred taxes are, according to Koller et al., the most common equity equivalent and should be treated accordingly (Koller, Goedhart, & Wessels, 2015). The deferred taxes arise from differences in how businesses and the government account for taxes. The idea behind classifying the deferred tax assets and liabilities

as equity equivalents is that the deferred taxes will never have to be paid and should therefore not be considered an asset or liability (Petersen & Plenborg, 2012). Koller et al. state that for companies with significant tax loss carry-forwards, like loss-making airlines, the carry-forwards should be treated as a nonoperating asset and valued separately from the deferred-taxes (Koller, Goedhart, & Wessels, 2015). The deferred taxes are therefore excluding tax loss carry-forwards and tax loss carry-forwards treated as a nonoperating asset. With this being said, the deferred taxes is treated as an equity equivalent but put as an own line item in table 7. The deferred taxes will be separated into operating and nonoperating items, as this will be further used when calculating the operating cash tax related to NOPLAT. The classification of operating and non-operating deferred taxes are shown in appendix 1. The deferred operating taxes are assumed to be related to mainly tangible assets and a smaller part to inventory, receivables, and other accruals. The changes in operating deferred taxes are then used in the calculation of NOPLAT as part of the operating cash tax. Due to lack of information in 2019, it is chosen to estimate operating deferred taxes by using the ratio between deferred operating taxes and tangible assets in 2018. In 2018 operating deferred taxes corresponded to 3,7 % of tangible assets, and this percentage is therefore used to estimate the operating deferred taxes in 2019.

*Assets held for sale are* classified as a financial item because, according to Peterson and Plenborg, this will lead to a reduction of net interest-bearing debt as the disposal of those assets will reduce borrowings or increase cash and cash equivalents (Petersen & Plenborg, 2012).

*Interest-bearing debt* like pension obligations, short- and long-term part of borrowings, the capitalized operating lease, and other interest-bearing liabilities are classified as part of financing activities. In 2019, the lease liability is included under interest-bearing debt and debt equivalents.

Table 7 shows the regrouping and calculation of invested capital, including the calculation of net operating working capital, nonoperating items, and sources of financing.

| NOK 1 000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Current operating assets | 2 647 174 | 3 104 529 | 3 635 454 | 5 078 426 | 7 725 212 | 11 179 038 |
| Current operating liabilities | 5 648 082 | 6 909 119 | 8 555 546 | 12 111 503 | 14 950 500 | 15 242 100 |
| **Net operating working capital** | **- 3 000 908** | **- 3 804 590** | **- 4 920 092** | **- 7 033 077** | **- 7 225 288** | **- 4 063 062** |
| Tangible assets | 16 966 519 | 24 812 169 | 30 099 675 | 31 451 175 | 40 106 300 | 66 378 600 |
| *of which right of use asset* | | | | | | *33 578 400* |
| Intangible assets | 206 826 | 206 675 | 198 260 | 201 383 | 212 300 | 198 600 |
| Other receivables | 421 060 | 501 811 | 623 606 | 789 974 | 1 142 400 | 1 485 000 |
| **Operating non-current assets** | **17 594 405** | **25 520 655** | **30 921 541** | **32 442 532** | **41 461 000** | **68 062 200** |
| Provision for periodic maintenance | 835 480 | 1 177 513 | 1 376 465 | 2 679 400 | 3 187 500 | 3 654 500 |
| **Operating non-current liabilities** | **835 480** | **1 177 513** | **1 376 465** | **2 679 400** | **3 187 500** | **3 654 500** |
| Invested capital excl. operating leases | 13 758 017 | 20 538 552 | 24 624 984 | 22 730 055 | 31 048 212 | 60 344 638 |
| Capitalized operating leases | 13 019 124 | 17 119 633 | 22 614 419 | 24 599 435 | 31 104 000 | |
| Invested capital incl. operating leases | 26 777 140 | 37 658 184 | 47 239 403 | 47 329 490 | 62 152 212 | 60 344 638 |
| **Nonoperating current assets** | **1 620 338** | **2 004 489** | **2 157 882** | **4 116 544** | **4 051 488** | **3 429 662** |
| Tax loss carry-forwards | 429 740 | 715 079 | 980 283 | 1 375 500 | 2 809 400 | 750 000 |
| **Nonoperating non-current assets** | **325 515** | **410 816** | **806 275** | **866 266** | **73 800** | **-** |
| Total funds invested (uses) | 29 152 734 | 40 788 569 | 51 183 843 | 53 687 800 | 69 086 900 | 64 524 300 |
| Interest bearing debt and debt equivalents | 13 944 683 | 20 582 170 | 23 781 664 | 26 633 358 | 35 528 300 | 62 321 400 |
| Capitalized operating leases | 13 019 124 | 17 119 633 | 22 614 419 | 24 599 435 | 31 104 000 | - |
| Operating deferred taxes | 85 573 | 274 419 | 568 346 | 383 300 | 1 503 000 | 1 229 201 |
| Nonoperating deferred taxes | - 4 897 | - 152 966 | 170 438 | - 26 800 | - 753 000 | - 3 151 201 |
| Equity and equity equivalents | 2 108 251 | 2 965 312 | 4 048 976 | 2 098 407 | 1 704 500 | 4 124 900 |
| Total funds invested (sources) | 29 152 734 | 40 788 568 | 51 183 843 | 53 687 700 | 69 086 800 | 64 524 300 |

*Table 7: Calculation of invested capital, total funds invested (uses) and (sources) (Own creation & Norwegian's annual reports)*

### 4.3.3 Special items

When making use of Norwegian's historical performance to forecast future earnings, it can be important to distinguish between the accounting items that are one-time nonoperating expenses and those who are ongoing operating expenses (Koller, Goedhart, & Wessels, 2015).

*Other losses/gains* include gains and losses from foreign currency contracts, translation of working capital in foreign currency, forward fuel contracts, net loss from total return swaps, and net gain or loss from the sale of fixed assets (Norwegian Air Shuttle, 2019). According to Petersen and Plenborg, the gains and losses from disposals of assets are transitory of nature (Petersen & Plenborg, 2012). The reason for this is that it is not possible to earn future income from these disposals, and they need to be isolated from operating income and expenses. There has been a gain from the sale of fixed assets both in 2017 and 2018, which has been removed. The losses/gains related to foreign exchange and financial assets are classified as nonoperational in the balance sheet and therefore adjusted for in the calculation of EBIT.

*One-time costs* that occur because of accidents like the Boeing 737 Max crashes and Boeing 787 Dreamliner engine problems are clearly outside Norwegian's control and have therefore been

considered a one-time charge and removed from EBIT. Norwegian announced in the quarter four 2019 report that this has resulted in additional costs by approximately NOK 1 billion in 2019.

### 4.3.4 Net operating profit less adjusted taxes (NOPLAT)

Now that the EBIT has been adjusted for nonoperating and extraordinary items, and is consistent with the definition of invested capital, the operating profit focuses solely on operations. As the primary purpose is to calculate the profit available to all investors, net operating profit less adjusted taxes (NOPLAT) has to be defined (Koller, Goedhart, & Wessels, 2015). NOPLAT stems from the core operations, which is the adjusted EBIT, after subtracting the income taxes that are related to the operating side.

As reported taxes is affected by nonoperating items, they must be adjusted so that they are on an all-equity, operating level. Koller et al. recommend using operating cash taxes actually paid, rather than accrual-based taxes reported. The reason being that many companies will never pay, or at least drastically delay paying, accrual-based taxes (ibid.).

The first step is to calculate tax on adjusted EBIT. This is done by multiplying the statutory tax rate, that is retrieved from the annual reports, with adjusted EBIT. The income taxes for companies in Norway has decreased from 27 % in 2014 to 22 % in 2019 (Finansdepartementet, 2018). The second step is to adjust the tax on EBIT for foreign income on tax rates other than that in Norway. Because it is not disclosed anything about foreign income tax in 2019, it is not adjusted for in the respective year. The nonoperating taxes are then found by subtracting the operating taxes from reported taxes. Lastly, to calculate operating cash taxes, the operating tax is adjusted for the increase or decrease in operating deferred tax liabilities, which was discussed earlier when dealing with the balance sheet. Appendix 2 displays the calculations of operating cash taxes. Table 8 shows the calculations of adjusted EBIT and NOPLAT.

| NOK 1 000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| EBIT from reformulated income statement | - 819 253 | 1 052 891 | 2 886 623 | - 720 821 | - 2 291 700 | 859 800 |
| Transitory and nonoperating items | 583 751 | 474 150 | - 677 656 | - 432 192 | 994 100 | - 845 800 |
| One-time costs | - | - | - | | - | 1 000 000 |
| **Adjusted EBIT** | **- 235 502** | **1 527 041** | **2 208 967** | **- 1 153 013** | **- 1 297 600** | **1 014 000** |
| Operating cash tax | 342 317 | 705 771 | 887 004 | - 308 661 | 653 152 | - 50 719 |
| **NOPLAT** | **- 577 820** | **821 270** | **1 321 963** | **- 844 352** | **- 1 950 752** | **1 064 719** |

*Table 8: Adjusted EBIT and NOPLAT (Own creation and Norwegian's annual reports)*

## 4.4 Historical analysis

Now that the reorganization of the financial statements is done, the historical performance of Norwegian can be analyzed. By doing this, it can be acknowledged whether they have historically created value, if they have grown and how they can be compared to their competitors. This will also help to prepare for the forecast of Norwegian´s future cash flows (Koller, Goedhart, & Wessels, 2015). The analysis will focus on Norwegians historical profitability, growth, and liquidity and further compare them with their peers, mainly focusing on the choice of leading competitors, SAS and Ryanair. Data obtained from Thomson One Banker as well as industry numbers from IATA and Damodaran will be used to compare Norwegian to its competitors.

### 4.4.1 Profitability analysis

Return on invested capital (ROIC) measures the overall profitability of operations. It is calculated by the following formula:

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

*Equation 2: ROIC calculation (Koller, Goedhart and Wessels (2015))*

Koller et al. recommend averaging starting and ending invested capital because the capital is only measured at one point in time, in contrast to profit (Koller, Goedhart, & Wessels, 2015).

The higher the ROIC, the more attractive the company will be to lenders, and they can, therefore, obtain cheaper financing (Petersen & Plenborg, 2012).

To determine if ROIC is at a pleasing level, it can either be compared to the required rate of return (WACC) or compared to competitors' ROIC. If the ROIC level exceeds Norwegians WACC, it indicates that they are creating value for their shareholders (Petersen & Plenborg, 2012). In order to measure the real operating performance of Norwegian, ROIC is measured, including the capitalized operating lease, which also makes it easier when comparing to the year 2019 after the implementation of the accounting standard IFRS 16.

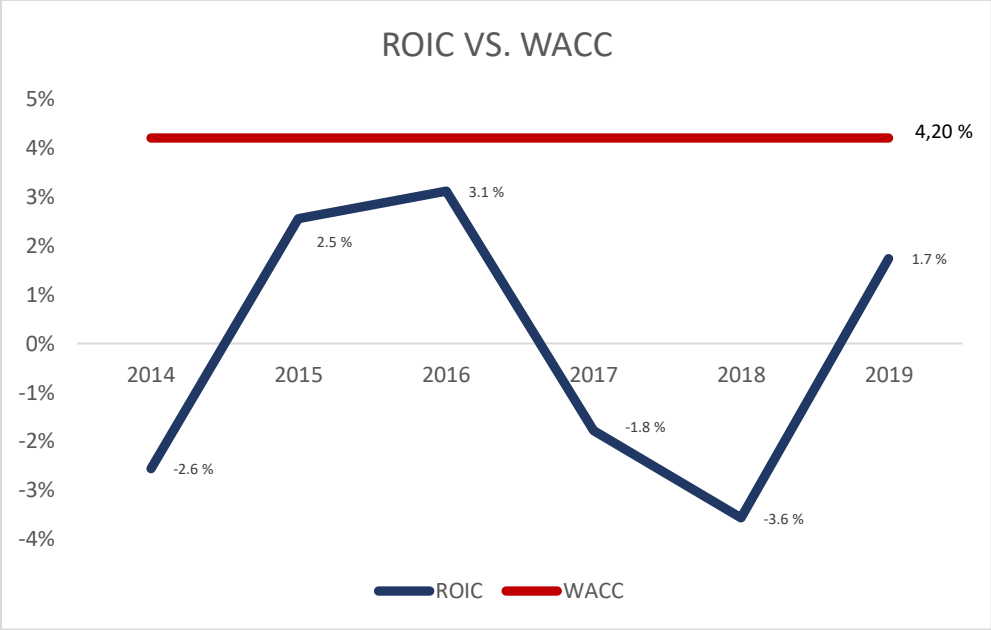



*Figure 4: Return on invested capital (ROIC) and WACC, Norwegian Air Shuttle (Own creation)*

Assuming that Norwegian´s WACC was equal to 4,20 % also in the past, it is observable in figure 4, that they have not created any value for their shareholders during the analyzed period. The rate of return (WACC) is discussed and calculated in chapter 6.2. The ROIC has been quite

volatile, only turning positive in 2015, 2016, and 2019. ROIC does not exceed WACC in any of the observed years and could imply that the invested capital is not used efficiently.

To analyze if Norwegian's ROIC deviates a lot from the industry, figure 5 illustrates a comparison with SAS, Ryanair, and an industry average.

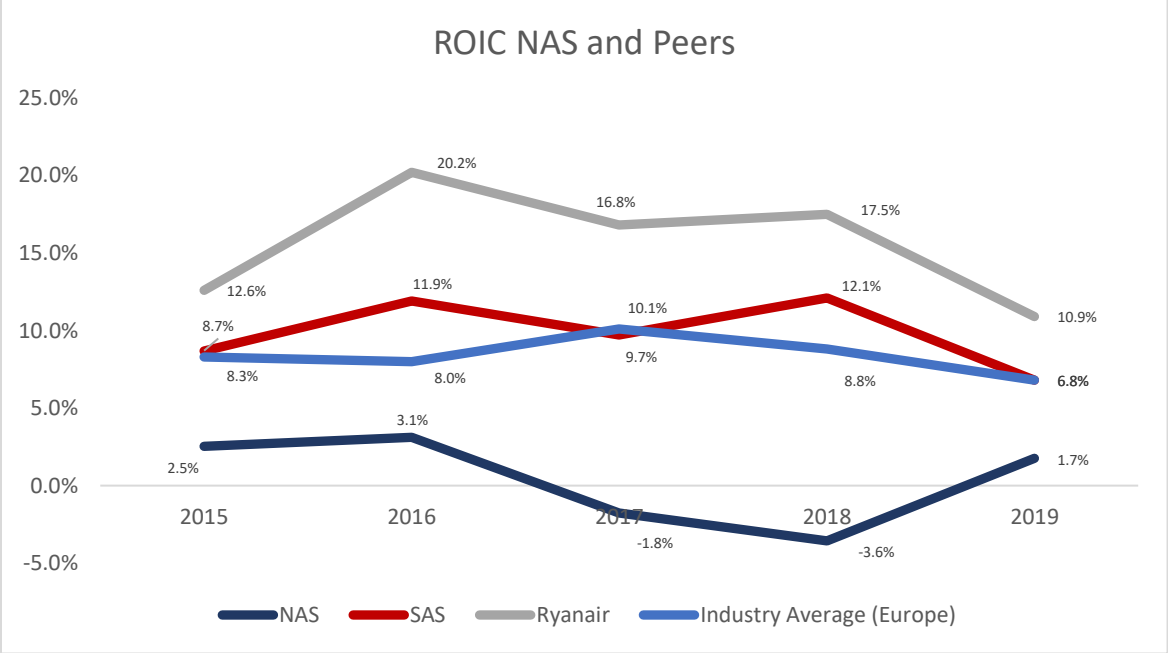
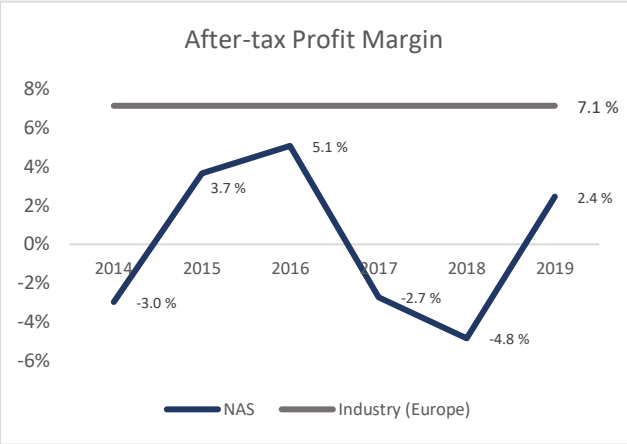



*Figure 5: ROIC NAS and peers (Own creation, IATA & Thomson ONE Banker)*

The cross-sectional analysis of ROIC shows that the difference between the airlines is quite significant. Norwegians ROIC does not exceed either SAS, Ryanair's, or the industry average in any of the years. The industry average is not entirely comparable as it includes companies in different segments than Norwegian. However, it is assumed that this still gives an appropriate benchmark for the different airlines represented. Ryanair differentiates themselves by a much higher ROIC the past years. Nevertheless, it can also be observed that the different airlines are moving in a similar direction towards the industry average in 2019.

To get a better understanding if Norwegian´s ROIC mostly stems from a better revenue and expense relation or improved capital utilization, ROIC is decomposed into profit margin and

turnover rate of invested capital (Petersen & Plenborg, 2012). The after-tax profit margin is calculated as NOPLAT divided by revenue, and the turnover rate of invested capital as revenue divided by average invested capital.



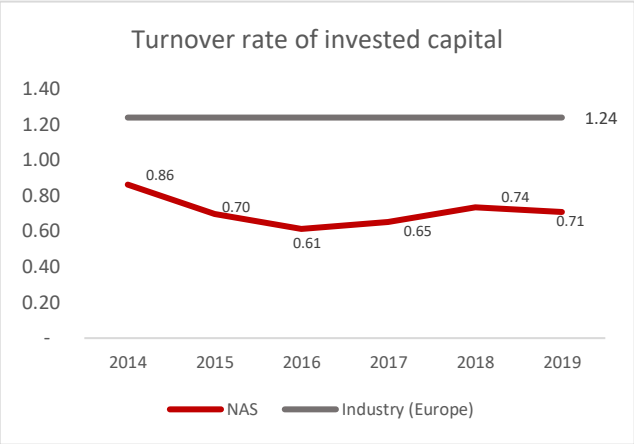




*Figure 6 and Figure 7: After-tax profit margin and turnover rate of invested capital NAS and industry (Own creation & Damodaran,2020)*

Figure 6 shows that the profit margin is following a similar pattern to ROIC, while the turnover rate is relatively stable over the years. This can indicate that ROIC is mostly explained by the revenue and expense relation. The years 2017 and 2018 has been characterized by a focus on growth and new investments to the fleet. This is, of course, reflected in high revenue growth, but also an increase in operating expenses. There have also been factors like uncertain and fluctuating fuel prices (Norwegian Air Shuttle, 2019), which is observed especially in 2018. In 2019 the ROIC has turned positive, and we can see that the shift from growth to profitability is taking shape through the cost reduction program #Focus2019 and steady growth in revenue. The move to profitability and strengthen liquidity in 2019 is also a result of postponed aircraft deliveries, sold aircraft, sale of shares in Norwegian Finans Holding ASA, and its domestic operation in Argentina (Norwegian Air Shuttle, 2020). Norwegian's profit margin is compared to the average after-tax lease-adjusted margin from the air transport industry in Europe on the 5th of January 2020 (Damodaran, 2020). Assuming this has been similar over the years, it is observed to be at a significantly higher level than Norwegian's most of the years.

In recent years, the turnover rate of invested capital has been fluctuating between 0,62 and 0,86, ending up at 0,71 in 2019. Dividing 365 days with the turnover rate of invested capital in 2019 indicates that invested capital is tied up in one year and 149 days on average. Norwegian's turnover rate of invested capital is also, as observed in figure 7, somewhat lower than the industry assuming that this has stayed relatively constant. This could indicate that Norwegian is not utilizing its invested capital effectively. Based on the decomposition, it is observable that Norwegians return on invested capital is mainly determined by the revenue and expense relation.

To further compare the profitability between Norwegian and its peers, the EBITDAR-margin seems to be the most reliable measure. The reason being that it enables the comparison of the revenue and expense relation without having to take into account the difference in capital structure, especially how they finance their aircraft, or their tax situation. To exclude effects for certain volatile operating expenses, EBITDAR-margin is measured before other losses/gains.

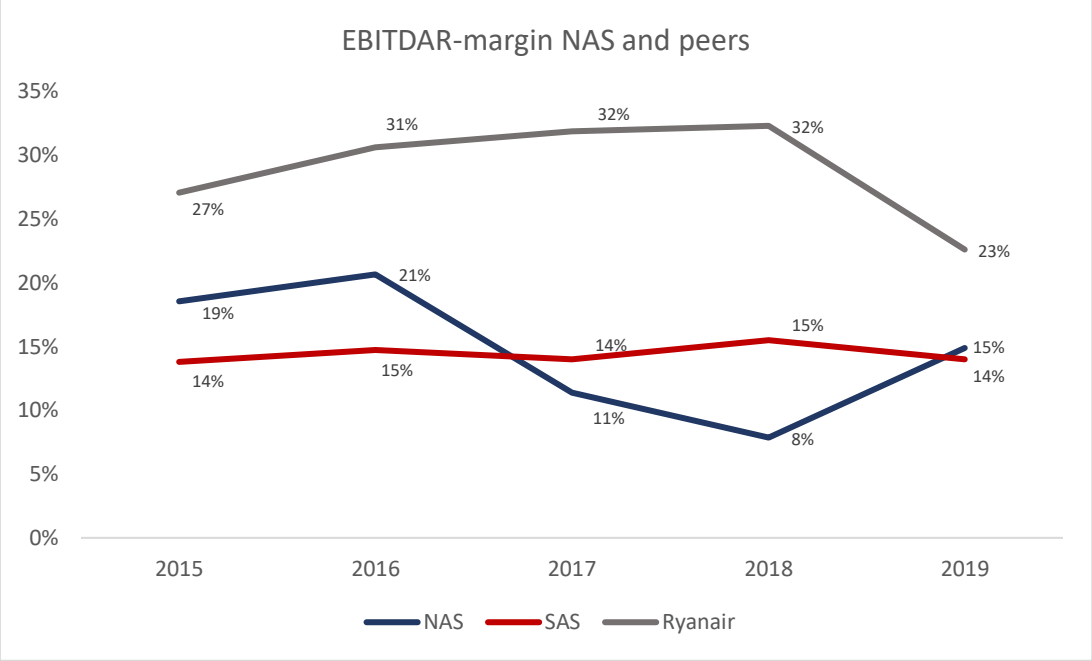
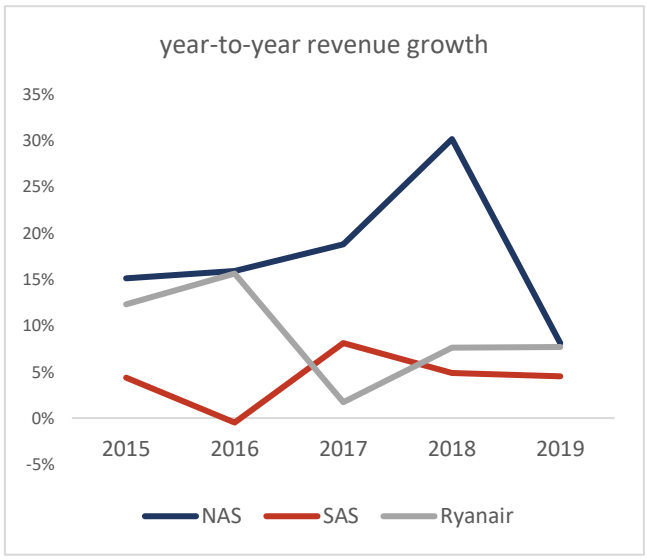



*Figure 8: EBITDAR-margin NAS and peers (Own creation, Norwegian's, SAS' & Ryanair's annual reports)*

Ryanair is observed, similarly to their ROIC, to have a declining EBITDAR-margin in 2019. This may be a result of, among other factors, slowing economic growth and concerns over BREXIT that has decreased demand and pricing (Ryanair Holdings PLC, 2019). Taking this into account, Norwegian and SAS still deliver a considerably lower EBITDAR-margin both in 2019 and the years prior. Compared to SAS, Norwegian seems to have an increasing trend in 2019, which can be explained by the previously mentioned focus on going from growth to profitability.

### 4.4.2 Growth analysis

Revenue growth is an important value driver of future progress in a company (Petersen & Plenborg, 2012). To get a better understanding of what phases Norwegian has been through, and where they are heading, the revenue growth will be analyzed.



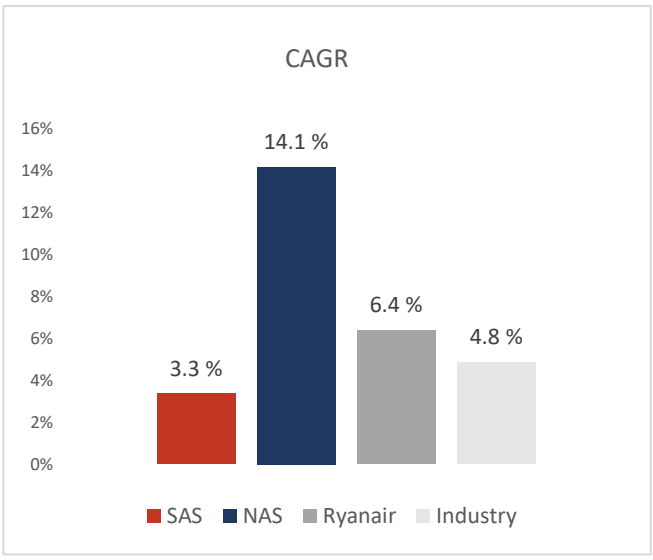




*Figure 9 and Figure 10: Year-to-year growth and Compunded Annual Growth Rate (CAGR) NAS and peers (Own creation, Damodaran Online, Norwegian's, SAS' & Ryanair's annual reports)*

Figures 9 and 10 illustrates year-to-year revenue growth and the Compounded Annual Growth Rate (CAGR) for Norwegian and its peers. The latter demonstrates a much higher CAGR for Norwegian than its peers analyzed, including the industry average. The air transport industry

CAGR is collected from *Damodaran´s website* (Damodaran, 2020), and represents the last five years 2015-2019.

Norwegians revenue growth has been increasing over the analyzed period when, in 2019, it drops significantly. The most significant increase has been in passenger transport, with a 32 % increase in 2018. There has also been quite an increase in ancillary revenue, and in 2018 the increase was 30 % from the year before. That being said, the vast increase in revenue, especially in 2017 and 2018, is not reflected in the profitability measures. This can be explained that the revenue growth is due to a lot of investments the recent years, which again can affect the ROIC negatively, as an expansion requires more capital invested. This also agrees with the increase in invested capital in 2018, also without taking operating leases into account. Figure 11 shows the fleet investments over the analyzed period, and how this lines up with the revenue growth. Revenues are reported in 1000s.

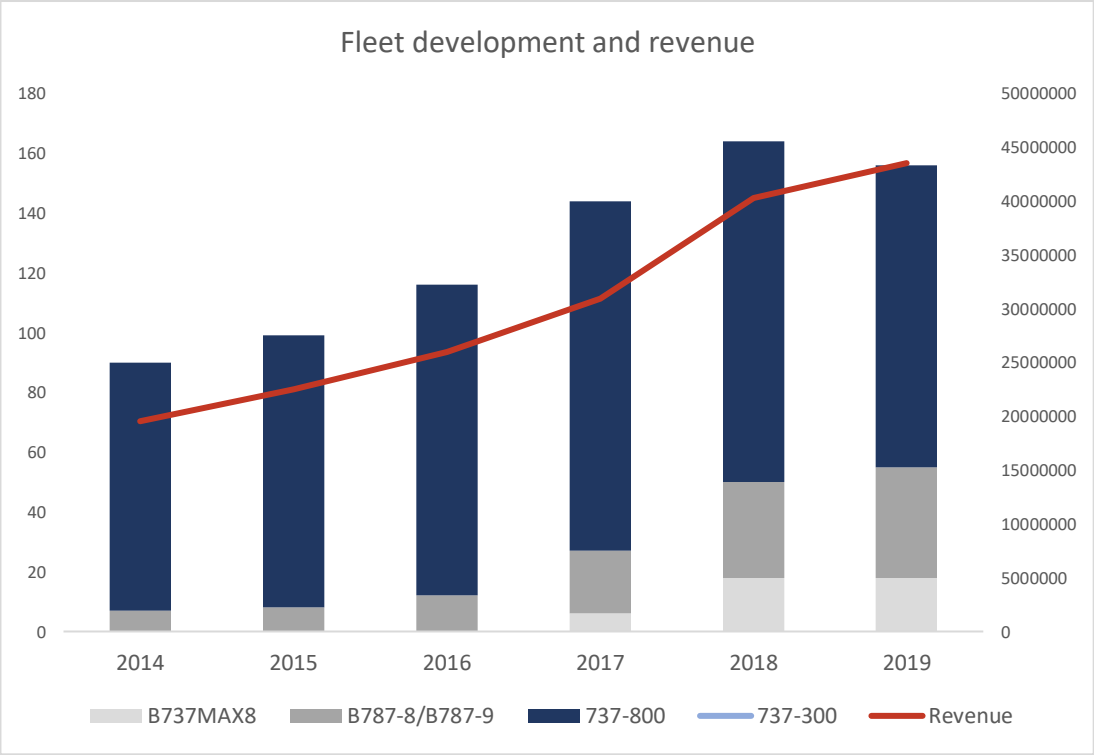


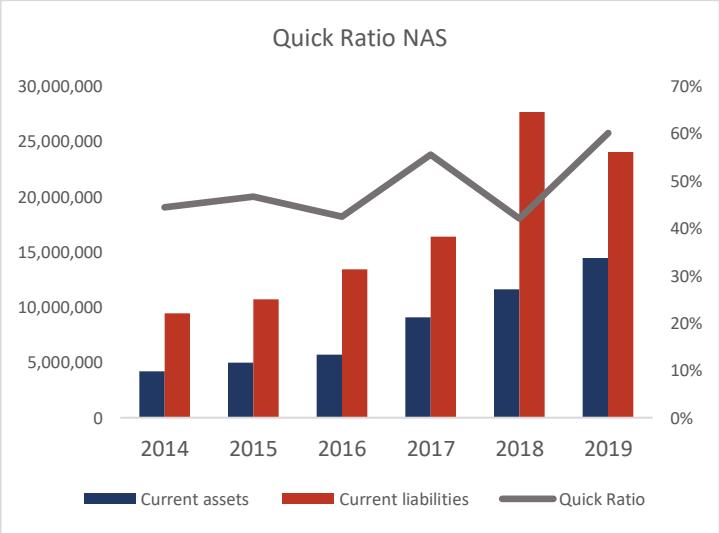

*Figure 11: Fleet development and revenue (Own creation & Norwegian's annual reports)*

### 4.4.3 Liquidity risk analysis

To look at how Norwegian has financed their operations and if they are capable of surviving a downturn in the industry, the capital structure has to be evaluated (Koller, Goedhart, & Wessels, 2015).

#### *Short-term liquidity*

To assess Norwegian's short-term liquidity risk, different measures can be used. Norwegian has been and still is, characterized by a high amount of debt. The quick ratio is, therefore, a good measure of the ability to meet their short-term liabilities with their most liquid assets. The most liquid assets will be the current assets, excluding inventory, as these can be turned into cash quickly (Petersen & Plenborg, 2012).



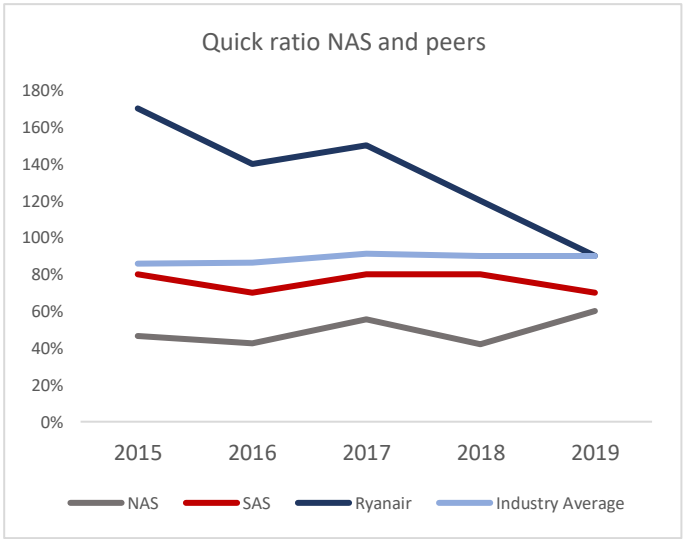




*Figure 12 and Figure 13: Quick ratio NAS and peers (Own creation, Norwegian's annual reports, Thomson One Banker & Wright investors' service, 2020)*

Figure 12 shows that Norwegians quick ratio has been varying around 40 – 60 % the recent years, with an increasing trend in 2019. As the most liquid assets have had steady growth over the years, the current liabilities have been relatively higher. The vast decline in the ratio in 2018 is due to an increase in their short-term part of borrowings. The main reason for this was due to

new PDP (Pre-Delivery Payment) financing and financing for seven 737-800 aircraft that were reallocated to short-term liabilities, as well as the euro bond NAS07, being reclassified to short-term (Norwegian Air Shuttle, 2019). There are used different rules of thumb when determining if the quick ratio level is satisfactory. However, the main idea is that the higher the ratio, the more likely it is that sale of liquid assets can cover the current liabilities (Petersen & Plenborg, 2012). The quick ratio has been laying under one every analyzed year, which could indicate that they are not able to cover all of their short-term debt.

To best analyze if Norwegian's quick ratio is at an inadequate level, figure 13 shows a comparison with SAS, Ryanair, and an industry average. The industry average is based on numbers from the global transportation sector (Wright investors' service, 2020). It can, therefore, not be completely comparable, but it is used to set a benchmark for the different companies. As observed, Ryanair's quick ratio has the highest level every year, while Norwegian's has the lowest. In the year 2019, we see that the airlines are moving in a similar direction. Norwegian's decline in current debt in 2019 is due to refinancing of bonds, repayment of credit facilities, sale-leaseback, and settlement of debt due to the sale of two aircraft, which gives rise to the quick ratio (Norwegian Air Shuttle, 2020).

### *Long-term liquidity risk*

There will be applied to variations of financial leverage ratios to measure Norwegian's long-term liquidity risk. The first ratio being debt to equity, and the second the solvency ratio, which measures equity to total capital (Petersen & Plenborg, 2012). As airlines are in a capital intensive industry (Dichter, 2017), Norwegians financial leverage is measured best if compared to the industry.

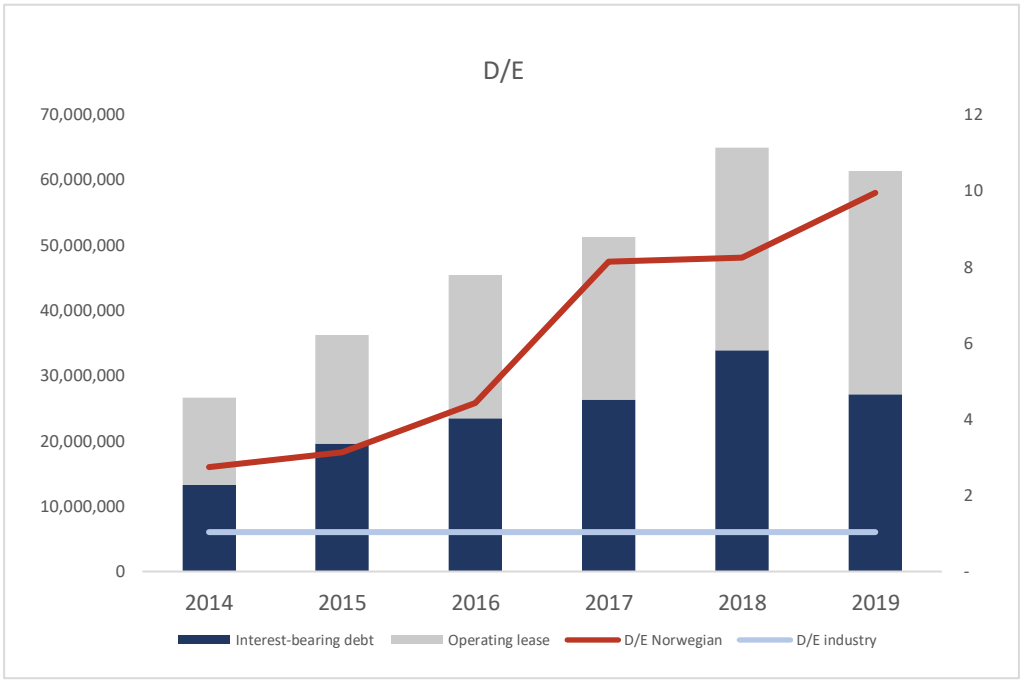



*Figure 14: Debt to Equity D/E NAS and industry (Own creation, Norwegian's annual reports, Oslo Børs & Damodaran online)*

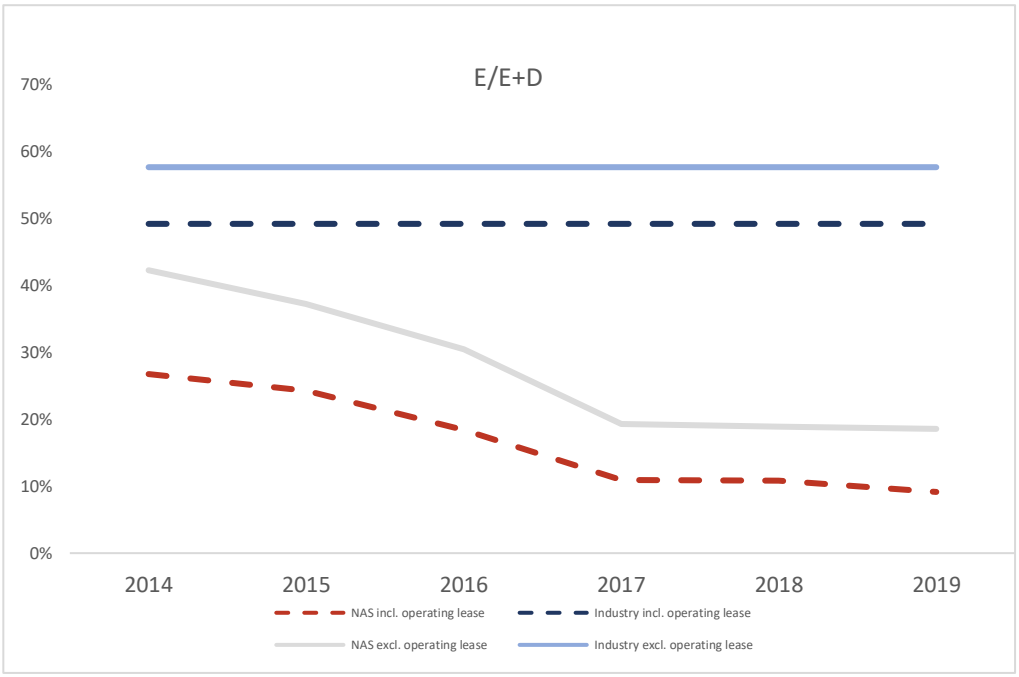



*Figure 15: Equity to total capital E/E+D NAS and industry (Own creation, Norwegian's annual reports, Oslo Børs, & Damodaran online)*

Figures 14 and 15 shows the D/E-ratio and the solvency ratio, equity to total capital, and numbers are recorded in 1000s. According to Petersen and Plenborg, if market values are available, it is recommended that they are used when determining the ratios (Petersen & Plenborg, 2012). Based on this, the book value of debt is used and includes both short and long-term interest-bearing debt, while equity is based on market values. The industry ratio is based on the air transport sector for the year 2019 (Damodaran, 2020). Both ratios are adjusted for operating leases to get an overview of how the lease liability impacts the capital structure.

To estimate if the ratios are at an adequate level, one generally says that high debt to equity and a low solvency ratio indicates high long-term liquidity risk (Petersen & Plenborg, 2012). Assuming that the industry ratio has been constant over the analyzed period, it is evident that Norwegian's long-term liquidity risk is way higher than the industry's. The high debt to equity ratio indicates that their growth has been characterized by an aggressive period with debt financing. The fact that Norwegian's financial leverage ratios are deviating so much from the industry average, both including and excluding operating leases, raises a red flag.

It is also worth mentioning that Norwegian has covenants on its outstanding bonds. The covenants include minimum book equity of NOK 1,500 million, dividend payments less than 35 percent of net profit, no dividend unless liquidity is above NOK 1,000 million, and minimum liquidity of NOK 500 million. Though they have not been in breach of any covenants, they were, due to significant losses in 2018, near to being in breach of the equity covenants by NOK 200 million. To strengthen their liquidity and equity position, they obtained NOK 2,9 billion in equity from a rights issue beginning of 2019 (Norwegian Air Shuttle, 2019).

### 4.4.4 Summary

Looking at the CAGR analyzed over the period, it is clear that Norwegian has been through a different phase than their peers. There has been a focus on growth, where the revenues have increased significantly. At the same time, the expansion has resulted in quite the investments, as shown in figure 11 of the fleet development. These investments have been financed mainly

through long-term debt. This shines through when comparing their profitability with other airlines. The profitability analysis also indicates that they are heading a positive way and closer to the industry in 2019.

The liquidity analysis shows that Norwegians short-term and long-term liquidity risk has been significantly higher compared to the industry. The quick ratio could indicate that they are not able to cover their current liabilities with their liquid assets if needed. The high debt to equity ratio also sticks out, and if the need for further debt increases, this can turn out to be complicated.

The positive trend in 2019, both in terms of profitability and liquidity, can indicate that Norwegian are heading in the right direction. Even though the airline industry is quite volatile, Norwegian are, according to themselves, taking measures to focus more on profitability. They will keep strengthening their balance sheet through a reduction in capital expenditures, which is done through aircraft divestment, including joint-venture and postponement of aircraft deliveries (Norwegian Air Shuttle, 2019), which can already be observed in 2019.

# 5. Forecasting

Based on the strategic and historical analysis, this chapter focuses on the forecast of Norwegian´s financial statement. This will ultimately help in the computation of NOPLAT, invested capital, and, most importantly, free cash flow (FCF), which is the base of the valuation. The forecasting will mainly be built on the groundwork done in the financial analysis where the past years 2014-2019 was analyzed in addition to relevant literature and articles.

When determining the length of the forecast period for a company, Koller et at. states that it is essential that it is long enough for the company to reach a steady state. If not, the terminal period will be biased and not reflect the actual value of the company. For companies with rapid growth, they recommend using a more extended forecast period, for about 10 to 15 years (Koller, Goedhart, & Wessels, 2015). There can be issues with both using a long and shorter forecast period, as a shorter period can result in undervaluation, and a longer period makes it hard to forecast line items that far into the future.

Historically, Norwegian has been characterized by its growth-focus but is now set on future profitability. It is therefore assumed that the growth will stabilize. Based on this, it is predicted that Norwegian will reach a steady-state in the year 2025. The length of the forecast will be on a period of 5 years in addition to 2025, the terminal year.

Based on the statements made above, the predictions made in the forecast are based on Norwegian´s outlook on the future, as well as assumptions made about the general airline industry based on other sources and interpretations. The first two years of the forecast will be highly influenced by the current situation regarding the Covid-19 virus. The following years will be characterized by fewer investments and growth and more on profitability. The forecast will be analyzing the base-case scenario, which will be the foundation of the valuation. After that, best-case and a worst-case will be calculated in the scenario analysis.

## 5.1 Key figures

### 5.1.1 Fleet plan

Going forward, Norwegian Air Shuttle is planning on receiving the rest of the already ordered MAX 8 aircraft in the future, but not in the pace as initially scheduled (Norwegian Air Shuttle , 2020). As the Boeing 737 MAX 8 is not expected to be back in the air and fully operating until mid-year 2020 (Shepardson, 2020), Norwegian is reliant on wet leases this summer to cover the MAX 8 absence (Norwegian Air Shuttle, 2020). They are, however, expecting to receive sixteen more MAX 8 aircraft in 2020, and ten more during 2021 (ibid). Norwegian is also expecting a delivery of four more Dreamliner´s in 2020, bringing their total fleet number up to 158 airplanes by the end of 2020. Furthermore, the airline is planning on phasing out their 737-800 aircraft and replacing them with the MAX 8 jet as they did with the 737-300 to 737-800, making their fleet even more fuel-efficient in the future (ibid.). Figure 16 illustrates the fleet forecast.

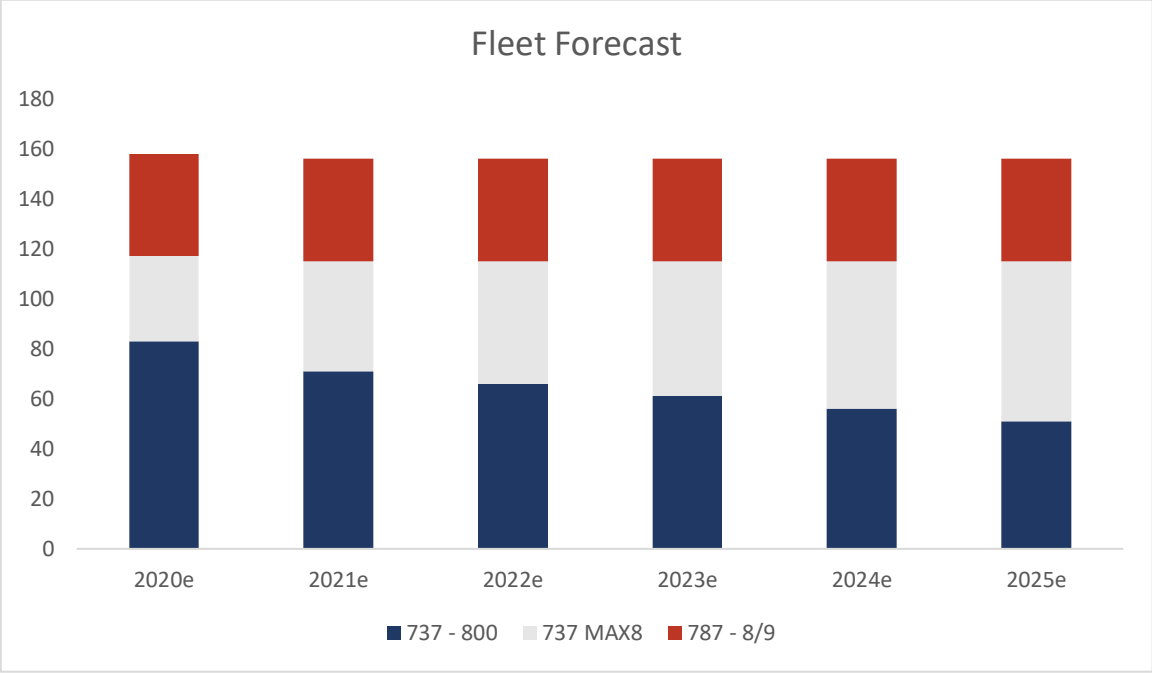



*Figure 16: Fleet Forecast (Own creation & Norwegian's annual report)*

### 5.1.2 ASK/RASK

Available seat kilometers (ASK) is projected to fluctuate according to the change in revenue. It is assumed that revenue is correlated to demand; hence, if the demand goes down, so will the scheduled flights, which in turn reduces ASK. Revenue per available seat kilometers (RASK) is anticipated to decline in 2020 to 0,34 du to the virus-effects, then increase little by little in the forecast period. This is based on assumptions about higher efficiency, as well as higher ancillary income per passenger.

### 5.1.3 Growth

The operating revenue growth rate is set based on Norwegian's predictions for the future (Norwegian Air Shuttle , 2020), together with IATA´s assumptions regarding the effects on the airline industry due to the Coronavirus. The Coronavirus is forecasted to affect Norwegian considerably in 2020. In addition, as have a ripple effect in 2021 before returning to "normal" in 2022. From 2022 onwards, projected revenue growth is three percent per annual.

## 5.2 Operating revenue

Norwegians operating revenue consists of passenger revenue, ancillary revenue, and other revenue. Passenger revenue is revenue generated from ticket-sales. Ancillary revenue from other services connected to ticket sales like extra luggage and fast-track, and last, other revenue which is revenue not connected or generated from the ticket-sales but e.g., third-party products (Norwegian Air Shuttle, 2020). Norwegian´s revenue has grown every year since the company was founded in 1993 (ibid); however, traffic figures from the first quarter in 2020 are suggesting that this will change in 2020 (Norwegian Air Shuttle, 2020). Due to the recent spread of the Coronavirus in Europe, the aviation industry is preparing for a crisis with lower demand and canceled flights (Hollinger, Espinoza, & Powley, 2020). Therefore, the predicted operating revenue in 2020 will decrease.

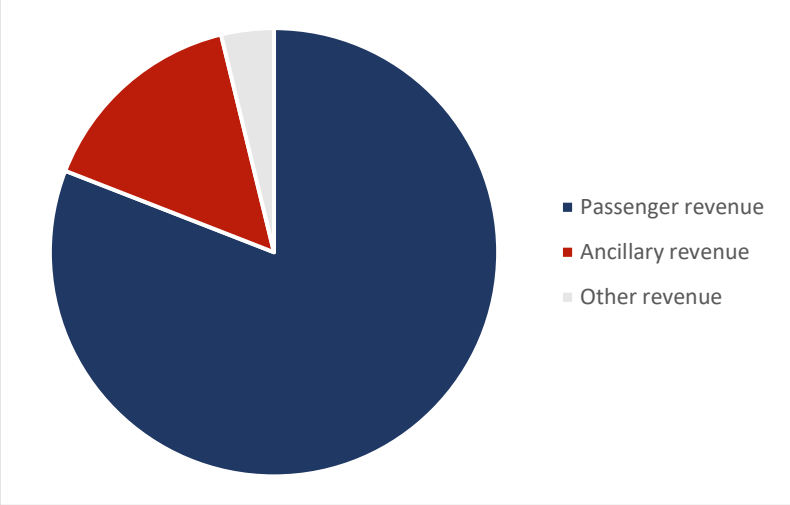



*Figure 17: Operating Revenue 2019 (Own creation & Norwegian's annual report)*

### 5.2.1 Passenger revenue

In 2019 passenger revenue accounted for 80,92 percent of all operating revenue (Norwegian Air Shuttle, 2020) and is, therefore, an essential item for the company and their future cash flow. Passenger revenue is calculated by multiplying available seat kilometers (ASK) by revenue per available seat kilometers (RASK). According to the International Air Transport Association (IATA), the spreading of the Coronavirus will lead to an eleven percent fall in passenger revenue worldwide (IATA, 2020). Even though the risk of air transmission is relatively low (WHO, u.d.), the problem will be a fall in demand. Based on this, it is predicted that Norwegian will see a 13% decline in operating revenue in 2020. Table 9 illustrates the predicted passenger revenue.

| | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
|---|---|---|---|---|---|---|
| ASK | 87 027 | 97 470 | 100 394 | 101 000 | 101 000 | 101 000 |
| RASK | 0,34 | 0,34 | 0,35 | 0,36 | 0,36 | 0,37 |
| Predicted Passenger Revenue | 29 589 170 | 33 139 870 | 35 138 009 | 36 360 000 | 36 360 000 | 37 370 000 |

*Table 9: Predicted passenger revenue (Own creation)*

### 5.2.2 Ancillary revenue

Ancillary revenue accounted for 15,28 percent of revenue in 2019, as ancillary revenue per passenger was up by 16 NOK per passenger to 184 NOK (Norwegian Air Shuttle, 2020). Ancillary revenue is calculated by multiplying ancillary revenue per person with total passengers. In January 2020, Norwegian changed its rules and regulations regarding cabin-baggage for low-priced tickets. Now, tickets booked after the 23rd of January have to pay extra to bring cabin bags that do not fit under the seat (Nikel, 2019). These changes are in line with their goal to change their business-model from growth to profitability (Norwegian Air Shuttle , 2020), it is therefore expected that ancillary revenue per passenger will increase even more from 2020 and onwards. Predicted ancillary revenue is shown in table 10.

| | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
|---|---|---|---|---|---|---|
| Passengers (million) | 29,0 | 32,4 | 33,4 | 34,0 | 34,5 | 35,0 |
| Ancillary revenue per passenger | 200 | 220 | 220 | 220 | 220 | 220 |
| Ancillary Revenue | 5 792 000 | 7 135 744 | 7 349 816 | 7 480 000 | 7 590 000 | 7 700 000 |

*Table 10: Predicted ancillary revenue (Own creation)*

### 5.2.3 Other revenue

Other revenue consists of revenue that is not directly linked to ticket-sales. It usually accounts for a tiny part of total revenue, historically between one and four percent (Norwegian Air Shuttle, 2020). Due to its profound significance, it is not easy to estimate the future value of this post. It is therefore forecasted that other revenues stay relatively stable, also in the future.

## 5.3 Operating expenses

Norwegian Air Shuttle´s operational costs have a significant effect on the company's profitability. Being a low-cost airline, their most significant expense is jet-fuel, usually followed by handling- and airport-charges.

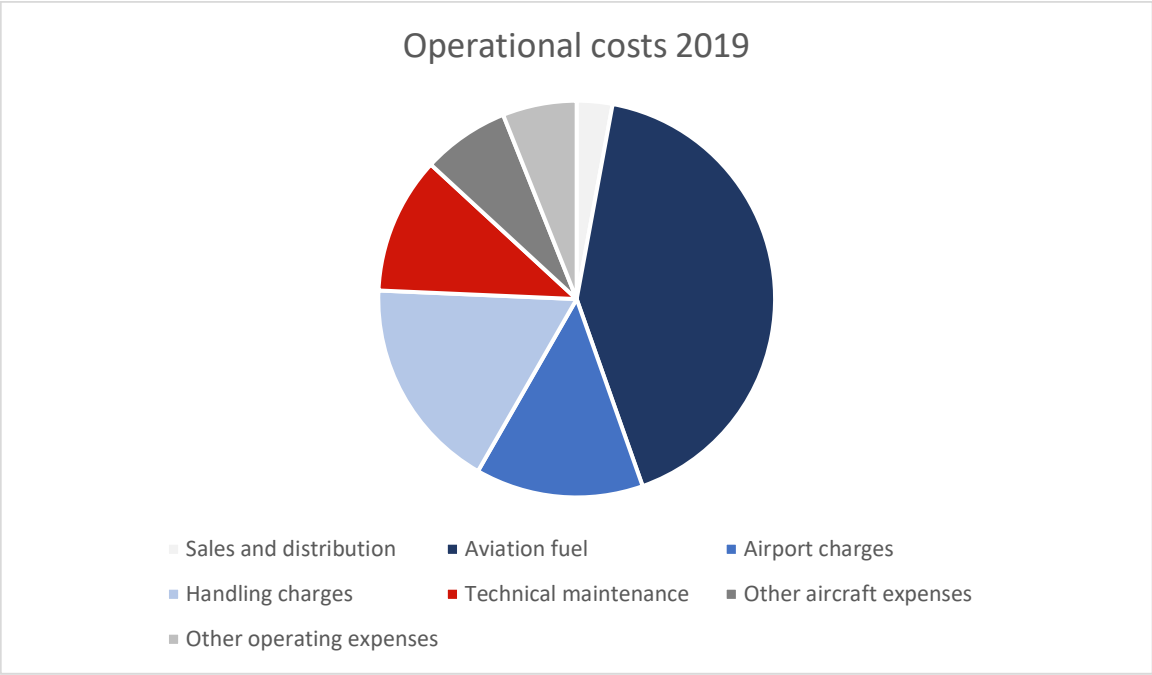



*Figure 18: Operational costs 2019 (Own creation & Norwegian's annual report 2019)*

### 5.3.1 Sales and distribution

Sales and distribution expenses have increased over the years but stayed stable at around two percent of revenue (Norwegian Air Shuttle, 2020). Despite a significant increase in travelers and customers (ibid.), it is reasonable to think that the expense has stayed stable at two percent due to increased efficiency and new technology. Accordingly, the predicted sales and distribution expenses are set to two percent of revenue in the forecast period.

### 5.3.2 Fuel

In 2019 jet-fuel was Norwegian Air Shuttle´s most significant expense and accounted for twenty-nine percent of their operational costs (Norwegian Air Shuttle, 2020). The jet-fuel expense post depends on three different factors. First, the oil price since the jet-fuel price is highly correlated to the oil price (IATA, n.d.). Second, the NOK/USD exchange rate because the price per barrel is priced in dollars, so when the rate differs, it affects Norwegian Air Shuttle as their primary

currency is NOK (Worstall, 2014). Last, the expense-post is impacted by available seat kilometers meaning how far their planes fly.

When forecasting the fuel expense, Norwegian´s aircraft are first divided into short- and long-haul then. The average fuel consumption in metric tons is calculated. It is assumed that the fuel consumption of the 737-800 and 737-300 aircraft is the same, and the MAX 8 consumption is twenty percent lower. Jet fuel price NOK per metric tons is calculated and multiplied with the predicted fuel consumption for the current year, and afterward adjusted for the available seat kilometers. See the following table for the predicted fuel expense in the forecast period:

| | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
|---|---|---|---|---|---|---|
| Predicted fuel consumption | 2 050 936 | 2 125 699 | 2 117 911 | 2 110 123 | 2 102 336 | 2 094 548 |
| Oil price | 43,3 | 55,4 | 64 | 72 | 78 | 81,7 |
| Jet-fuel price | 55,1 | 70,5 | 81,5 | 91,7 | 99,3 | 104 |
| Jet-fuel price per NOK/metric tonnes | 3 718 | 4 758 | 5 496 | 6 183 | 6 698 | 7 016 |
| Fuel expense | 7 626 224 | 10 113 022 | 11 640 112 | 13 046 974 | 14 082 057 | 14 695 413 |
| Predicted fuel expense adj for ASK | 6 634 814 | 8 899 460 | 11 640 112 | 13 046 974 | 14 082 057 | 14 695 413 |

*Table 11: Predicted fuel expense (Own creation)*

### 5.3.3 Lease expense

Historically, the rental expense for airplanes has been accounted for in a lease expense in the income statement. As discussed in section 4.4.1, Norwegian has now adopted the accounting standard IFRS 16 from 1 of January 2019. This means that in the forecast, the lease expense account will be replaced by depreciation and interest cost, relating to the right of use (ROU) asset and the corresponding lease liability.

### 5.3.4 Airport charges

Airport charges are a collective term for passenger charges, take-off charges, transfer charges, and security charges, which the airlines are required to pay for using the airports´ amenities (Avinor, n.d. ). However, the charges are paid by passengers as they are added to the ticket-price (European Commission , n.d.). Norwegian Air Shuttle´s airport charges have been quite stable over the last years (Norwegian Air Shuttle, 2020). They are therefore thought to stay like that in the future, only adjusted for revenue increase or decrease.

### 5.3.5 Handling charges

Handling charges are services the aircraft receive when grounded, usually when parked at the gate such as loading or unloading cargo for the aircraft (Logistics Glossary, n.d.). Historically Norwegian´s handling charges have increased a bit but almost always been between eight and thirteen percent of revenue (Norwegian Air Shuttle, 2020). Their future handling costs are therefore predicted to stay constant at an average of 10,52 percent, same as in 2019 (ibid).

### 5.3.6 Maintenance

Maintenance is necessary to sustain the aircraft´s function and performance (Hessburg, 2001). Since safety is the top priority in the aviation industry (IATA, n.d.), maintenance is vital for both preventative and corrective causes. Over the last years, Norwegian Air Shuttle´s technical maintenance expenses have increased along with their fleet, but after 2017 the maintenance expense per aircraft has increased more than usual. This might be due to the problems related to the Rolls Royce engine problems with the 787 Dreamliner (Hussain, 2019). Poor durability of the components within the engine forced Norwegian Air Shuttle to put almost a third of their Dreamliners on the ground in the end of 2019 (Sanders, 2019). This only four and a half years upon receiving the aircraft. Predicted technical maintenance is set to increase and decrease along with their forecasted future fleet.

## 5.4 Other operating expenses

Other operating expenses are cost not directly linked to the aircraft fleet e.g., marketing, hired consultants, or back-office (Norwegian Air Shuttle, 2019). It is evident that the ratio is not dependent on ASK when comparing historical numbers. Therefore, the amount is set to be stable in the forecast period ranging between nine and twelve percent of revenue.

## 5.5 Payroll and other personnel expenses

In 2019 payroll and other personnel expenses accounted for 15,66 percent of the company's operational costs (Norwegian Air Shuttle, 2020). When calculating the payroll/ASK ratio for five previous years, they appear to be stable around 0,068. The payroll/ASK ratio is, therefore, assumed to be 0,068 in the forecast period.

## 5.6 Depreciation and amortization

According to Koller et al., depreciation should be a percentage of tangible assets when being forecasted (Koller, Goedhart, & Wessels, 2015). Owned aircraft are usually depreciated over 20-25 years (IATA, n.d.). Consequently, owned aircraft will be depreciated with 4 percent yearly, equivalent to 25 years. It is assumed that leased aircraft will be depreciated with 14,1 percent of the right of use asset, the same rate as in 2019 (Norwegian Air Shuttle, 2020) in the forecast period. Table 12 displays the depreciation of owned aircraft and the right of use assets.

| | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
|---|---|---|---|---|---|---|
| Owned airctaft | 5 727 542 | 1 399 660 | 1 529 107 | 1 498 136 | 1 468 403 | 1 439 860 |
| ROU assets | 4 612 630 | 4 579 259 | 4 578 150 | 4 576 982 | 4 575 754 | 4 574 461 |
| Total depreciation | 10 340 172 | 5 978 918 | 6 107 257 | 6 075 118 | 6 044 157 | 6 014 321 |

*Table 12: Total predicted depreciation (Own creation)*

Amortization of capitalized software has been relatively stable over the analyzed period and is therefore assumed to stay constant by 49 % of software also in the future.

## 5.7 Tax

The income tax rate for companies in Norway has decreased over the last few years, from 25 percent in 2016 to 22 percent in 2019 and 2020 (Regjeringen, 2019). It is assumed that Norwegian Air Shuttle only pays taxes in Norway in the future and that the rate will stay constant at 22 percent.

## 5.8 EBIT and NOPLAT

EBIT is calculated by subtracting operating expenses from operating revenue. Further, NOPLAT is calculated by subtracting operating cash tax from EBIT. Table 13 shows the calculation of EBIT and NOPLAT for the forecasted period.

| | 2020e | 2021e | 2022e | 2023e | 2024e | Teminal |
|---|---|---|---|---|---|---|
| Total revenue | 37 864 053 | 42 407 739 | 43 679 972 | 44 990 371 | 46 340 082 | 47 730 284 |
| Total operating expenses | 17 956 137 | 21 168 394 | 24 002 447 | 25 510 124 | 26 653 476 | 27 382 600 |
| Other expenses | 9 136 278 | 10 232 632 | 10 539 611 | 10 580 798 | 10 580 798 | 10 580 798 |
| Total costs | 27 092 416 | 31 401 026 | 34 542 058 | 36 090 922 | 37 234 273 | 37 963 397 |
| **EBITDA** | **10 771 637** | **11 006 713** | **9 137 914** | **8 899 449** | **9 105 808** | **9 766 887** |
| Depreciation&Amortization | 5 758 926 | 6 008 430 | 6 140 310 | 6 109 163 | 6 079 223 | 6 050 439 |
| **EBIT** | **5 012 712** | **4 998 283** | **2 997 604** | **2 790 286** | **3 026 585** | **3 716 448** |
| Tax on EBIT | 1 102 797 | 1 099 622 | 659 473 | 613 863 | 665 849 | 817 619 |
| Operating deferred taxes | 1 472 598 | 1 613 228 | 1 589 630 | 1 567 356 | 1 546 363 | 1 526 612 |
| Change in deferred operating ta | 243 397 | 140 631 | - 23 598 | - 22 275 | - 20 993 | - 19 751 |
| Operating cash taxes | 1 346 193 | 1 240 253 | 635 875 | 591 588 | 644 856 | 797 868 |
| NOPLAT | 3 666 519 | 3 758 030 | 2 361 729 | 2 198 698 | 2 381 729 | 2 918 581 |

*Table 13: EBIT and NOPLAT calculation (Own creation)*

As seen in table 13, NOPLAT in 2020 and 2021 is high despite sharp fall in revenue growth. This, among other things, is due to the low projected oil-price making Norwegian´s operating expenses much lower than previous and future years.

## 5.9 Invested Capital

The balance sheet can either be forecasted directly, where the line items is a function of value drivers, in particular revenue or indirectly, by forecasting the changes in balance sheet items and revenues. Koller et al. favor the direct approach, based on the relationship between revenues, or other value drivers and balance sheet items being more stable than the changes each year (Koller, Goedhart, & Wessels, 2015). It is therefore chosen to mainly focus the forecast on the direct method, where the core value driver will be revenues.

### 5.9.1 Operating working capital

The historical analysis illustrated that the operating working capital has decreased over the years. On the other hand, in 2019, it increased by about 44 %, which was mainly due to highly increased trade and other receivables. The upturn in receivables was due to changed capacity with acquirers and an increase in prepaid expenses and made up for 23 % of revenue in 2019. Because this item has been relatively unstable, it is chosen an estimate on 21 % of revenue in the forecast. It was estimated in the historical analysis that operating cash consists of 2 % of revenue, and this will be the estimate in the forecasted period as well. Inventories consist of spare parts and have stayed stable trough the analyzed period, with an average 0,4 % of revenue. It is therefore assumed that inventory will continue to make up for 0,4 % of revenue in the forecasted period.

Trade and other payables make up 17 % of revenue on average, historically. However, due to the significant increase in 2018 and 2019, it is estimated that trade and other payables will make up for 19 % of revenue. The last item for computing the operating working capital is the air traffic settlement liabilities related to pre-sold tickets and delays. In 2019 this made up for 14 % of revenues, and it has been relatively stable in the last years. It is therefore assumed that air traffic settlement liabilities will stay by 14 % of revenues. The net operating working capital will continue being quite negative because the air traffic settlement liabilities make up a large amount of the current operating liabilities. Table 14 shows the net operating working capital.

| NOK 1 000 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|
| Inventory | 153 379 | 171 784 | 176 938 | 182 246 | 187 713 | 193 345 |
| Trade and other receivables | 7 951 451 | 8 905 625 | 9 172 794 | 9 447 978 | 9 731 417 | 10 023 360 |
| Operating cash | 757 281 | 848 155 | 873 599 | 899 807 | 926 802 | 954 606 |
| **Total Current Operating Assets** | **8 862 111** | **9 925 564** | **10 223 331** | **10 530 031** | **10 845 932** | **11 171 310** |
| Air traffic settlement liabilities | 5 950 174 | 6 128 679 | 6 312 539 | 6 501 915 | 6 696 973 | 6 897 882 |
| Trade and other payables | 8 057 470 | 8 299 195 | 8 548 170 | 8 804 616 | 9 068 754 | 9 340 817 |
| **Total Current operating liabilites** | **14 007 644** | **14 427 873** | **14 860 710** | **15 306 531** | **15 765 727** | **16 238 699** |
| Net operating working capital | - 5 145 533 | - 4 502 309 | - 4 637 378 | - 4 776 500 | - 4 919 795 | - 5 067 389 |

*Table 14: Net operating working capital (Own creation)*

### 5.9.2 Tangible assets

Tangible assets include the items property plant and equipment (PPE), right of use asset (leased asset), and prepayment on aircraft.

#### *Property, plant, and equipment*

Included in the PPE account are owned aircraft, parts, and installations on leased aircraft, equipment, and fixtures and buildings. Because buildings, equipment, and fixtures hold an insignificant amount of this post, PPE is forecasted mainly with respect to company-owned aircraft.

At the end of 2019, Norwegian had 156 aircraft in their fleet (Norwegian Air Shuttle, 2020), 65 of which were owned, and the rest of them leased. After years of expanding its fleet, Norwegian seems to finally have reached their optimal fleet size (ibid.). All of Norwegian´s operating aircraft are Boeing machines varying from different types of 737 and 787 aircraft. After calculating the aircraft capitalized value, predicted PPE is forecasted by taking last year's PPE minus depreciation, plus predicted additions. As Norwegian is operating with one of Europe´s youngest fleet (Norwegian Air Shuttle, 2020), their aircraft are assumed to be relatively new. All owned aircraft will, therefore, be linearly depreciated with four percent, representing an average asset life of 25 years (IATA, n.d.).

#### *Prepayment to aircraft manufacturers*

Prepayment is an asset related to Norwegians undelivered aircraft, and it follows a defined prepayment schedule. This item has been making up a relatively high percentage of revenue, and in 2018 the amount was on NOK 8,561 billion. In 2019, it was almost half of that, corresponding to a percentage of revenue equal to 11 % in contrast to 21 % in 2018. This is correct as Norwegian previously invested a lot into their fleet but are now putting the focus on profitability. Hence, "prepayment to aircraft manufacturers" is chosen to follow 11 % of revenue in the forecast period.

### *Right of use asset*

The calculations on right of use assets and corresponding lease liability are based on Norwegians application of the modified retrospective approach under IFRS 16 (Norwegian Air Shuttle, 2020).

Because of the application of the modified retrospective approach, and Norwegian previously classifying their aircraft leases as operating leases, the right of use asset can be measured at the amount equal to the lease liability. Then, adjusted for prepaid or accrued lease payment that is recognized immediately before dating of initial application (PwC, 2016). Because the annual report for 2019 is not published, and lack of information, it is seen as challenging to estimate adjustments to the right of use asset. The right of use asset will, therefore, be forecasted as equal to the lease liability.

In order to recognize the lease liability, it has to be measured at the present value of the remaining lease payments under the lease contracts, which is discounted using Norwegians incremental borrowing rate at the date of the initial application. To forecast remaining lease payments under lease contracts, it has been discussed different approaches.

Based on the assumption that the number of leased aircraft will stay constant in the future, the first approach was to calculate an average leasing payment per 737-800, 737 Max-8 and 787-8/9, and then forecast the lease payments based on the number of lease contracts in the future. The other approach was to use Norwegians own calculations on annual minimum rent on non-cancellable operating lease agreements. This is found to be the most reliable estimate on future annual payments and is therefore used when estimating the lease liability. As mentioned, it is not disclosed sufficient information per 31 December 2019, and therefore the annual minimum rent per 31 December 2018, as shown in Table 15 is used:

| NOK 1 000 | Nominel value 2018 |
|---|---|
| Within one year | 5 035 900 |
| Between 1 and 5 years | 17 656 900 |
| After 5 year | 16 912 400 |

*Table 15: Annual minimum rent on non-cancellable payments per 31.12.2018 (Norwegian Air Shuttle, 2019)*

In table 15, the payments between 1 and 5 years and after five years are aggregated. It is therefore chosen to divide the amount between 1 and 5 years with 4 to get an annual payment. Norwegian reports that lease agreements on Boeing 737 aircraft last between 3 and 12 years from the date of agreements, while Boeing 787 agreements last for 12 years with an option for extension. To find an estimate on the remaining years in the agreements, the aggregated amount disclosed "after 5 years" is divided with the amount that was found "between 1 and 5 years". Then it is obtained an estimate on 3,83 years left on the agreements, which is rounded up to 4 years and results in an estimated contract length of 9 years.

| NOK 1 000 | Estimates 2020 |
|---|---|
| Year 1 | 5 035 900 |
| Average lease payments year 2-5 | 4 414 225 |
| **Years left of payments after year 5** | **3,83** |
| Average lease payments year 6-9 | 4 228 100 |

*Table 16: Calculation of lease payments and estimated contract length (Own creation & Norwegian's annual report)*

Further, it is assumed that every time a lease contract ends, a new one is signed. This is in line with the estimated fleet plan, and that the number of leased aircraft will stay constant in the future.

Norwegian applies an incremental borrowing rate to lease liabilities in the interval of 5,1-5,4 % for aircraft leases (Norwegian Air Shuttle, 2020). It is therefore taken an average of this, which

results in an incremental borrowing rate of 5,25 %. This is used when calculating the present value of the lease liability. Table 17 shows the right of use asset and lease liability in the years 2020-2025. The depreciation of the right of use asset is set equal to the ratio in 2019, which was 14,1 % of the right of use asset.

| NOK 1 000 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|
| Rental expense | 5 035 900 | 4 414 225 | 4 414 225 | 4 414 225 | 4 414 225 | 4 228 100 |
| **Lease liability and right of use asset** | **32 745 132** | **32 508 229** | **32 500 356** | **32 492 070** | **32 483 349** | **32 474 170** |
| | | | | | | |
| Interest cost | 1 719 119 | 1 706 682 | 1 706 269 | 1 705 834 | 1 705 376 | 1 704 894 |
| Depreciation | 4 612 630 | 4 579 259 | 4 578 150 | 4 576 982 | 4 575 754 | 4 574 461 |
| **Sum** | **6 331 749** | **6 285 941** | **6 284 418** | **6 282 816** | **6 281 130** | **6 279 355** |

*Table 17: Predicted right of use asset, interest cost and depreciation on leased aircraft (Own creation)*

Summing up the above-mentioned items, we are left with the forecasted tangible assets. Table 18 shows the predicted tangible assets, which will be further used when forecasting the free cash flow.

| NOK 1 000 | 2020 | 2021 | 2022 | 2024 | 2024 | 2025 |
|---|---|---|---|---|---|---|
| Property, plant and equipment (PPE) | 34 991 494 | 38 227 678 | 37 453 390 | 36 710 073 | 35 996 488 | 35 311 447 |
| Total right of use asset | 32 745 132 | 32 508 229 | 32 500 356 | 32 492 070 | 32 483 349 | 32 474 170 |
| Prepayment to aircraft manufacturers | 4 303 542 | 4 819 967 | 4 964 566 | 5 113 503 | 5 266 908 | 5 424 915 |
| Tangible assets | 72 040 168 | 75 555 874 | 74 918 312 | 74 315 646 | 73 746 745 | 73 210 533 |

*Table 18: Predicted tangible assets (Own creation)*

### 5.9.3 Intangible assets

Intangible assets consist of computer software, goodwill, and other intangible assets. Capitalized software is related to external consulting fees, sales portals, back office, and maintenance systems. The costs are amortized over their estimated useful lives which is three to five years. The software has stayed relatively constant with regards to revenue over the years, and it is therefore assumed that this item will stay at 2019 levels which are 0,16 % of revenue also in the forecasted period.

Goodwill and other intangible assets represent the excess of the cost of an acquisition over fair value and to identifiable assets from business combinations and investments in other intangible assets, respectively. It has not been forecasted for any possible acquisition, and it will therefore

not be estimated any investments in goodwill or any amortization of acquired intangibles. Norwegian reports that they test goodwill and assets with indefinite useful lives annually for impairment, while intangible assets with definite lives are tested for impairment if there are indicators of impairment identified (Norwegian Air Shuttle, 2019). It is assumed that there will be no identification of impairment in the forecasted period. Goodwill and other intangibles will be treated as one line item and going further, the 2018 levels, which is 0,37 % of revenue, will be implemented.

#### 5.9.4 Fixed asset investment

In 2019 the items included under fixed asset investment were investments in financial assets, investment in associate, and other receivables. After Norwegian sold their remaining shares in NOFI in 2019, we regard this item as just including investment in the joint-venture and other receivables, and therefore as being part of operations. This post was equal to NOK 1,485 million in 2019 and is assumed to be constant in the future.

### 5.10 Operating non-current liabilities

#### 5.10.1 Provision for periodic maintenance

The last post included in invested capital is provision for periodic maintenance, which is a non-current liability. Provisions are made based on the estimated costs of overhauls and maintenance. (Norwegian Air Shuttle, 2019). Provision for periodic maintenance will follow the percentage of revenue equal to 2019, which was 8,4 %.

### 5.11 Deferred taxes

Deferred taxes will have an impact on the calculations of NOPLAT through the change in operating deferred taxes. As it can be challenging forecasting this item, it has been chosen to follow Koller et al. recommendation to use the corresponding balance sheet item as a forecast driver for deferred taxes (Koller, Goedhart, & Wessels, 2015). Based on the fact that deferred taxes related to tangible assets holds a significant amount of the deferred operating taxes, the

deferred operating taxes as a percentage of tangible assets, excluding the right of use asset, will be used as a forecast driver. In 2018 the deferred operating taxes amounted to 3,7 % of tangible assets. This ratio will be used when determining the deferred operating taxes in the future. Assuming that in the terminal period, there will be a stable investment flow in tangible asset, the deferred taxes will be stable going further.

Appendix 8 shows the forecasted invested capital.

## 5.12 Capital structure

A firm's capital structure affects DCF valuation through the weighted average cost of capital (Koller, Goedhart, & Wessels, 2015). For the most part, using a constant WACC in DCF valuation, it is considered to be a precise and robust method, which leads to a constant capital structure (ibid.). However, due to the possibility that the current capital structure does not reflect the expected future structure, it is recommended to use the target or industry average structure when calculating WACC (Petersen & Plenborg, 2012).

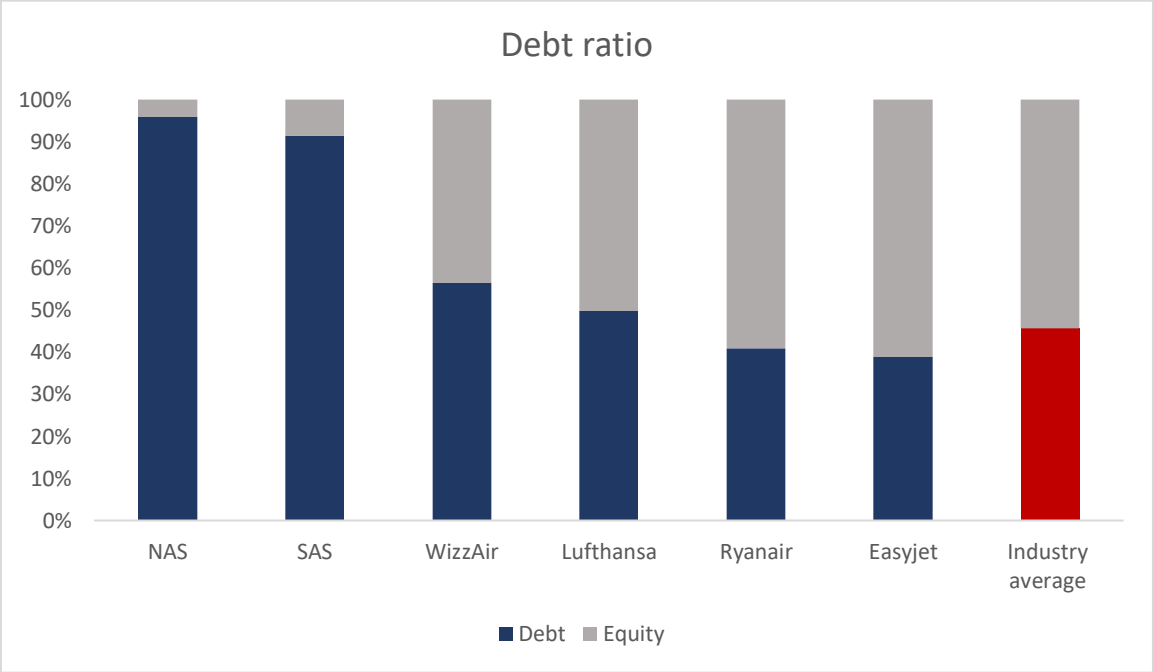



*Figure 19: Debt ratio NAS and peers (Own creation & Thomson ONE Banker & Damodaran Online)*

The debt ratio is calculated by debt to total capital. As seen in the table above, Norwegian´s debt ratio is way higher than its peers and well over the industry average. However, when determining Norwegian´s capital structure, historical-, target- and industry average structure have been taking into account.

Historically, the company has operated with high levels of debt (Norwegian Air Shuttle, 2019). As a result of the implementation of IFRS 16 in 2019, the debt rose significantly due to the increased lease liability. Despite a high historical average, it is assumed that the debt will decrease over time.

After reviewing the company´s annual reports, there is no evidence of Norwegian stating their target capital structure. However, one can read from the capital management policy that "The Group will at all times adjust debt and equity to maintain and secure an optimal capital structure by continuously monitoring the total equity level and the equity ratio of the Group." (Norwegian Air Shuttle, 2019, pp. 37-38).

The current debt ratio of Norwegian is at a peak in the company's history, displaying an unsustainable financial situation. Moreover, as Covid-19 is likely to continue having an impact on businesses worldwide the assumption is that the company will not be able to make any down payments on the debt during the forecast period. The capital structure is therefore constant in the forecast period. Moreover, it is reasonable to assume that Norwegian´s capital structure in the future will be closer to the industry average. Damodaran´s industry average (Damodaran, Damodaran Online, 2020) is used as capital structure in the calculation of the terminal value.

## 5.13 Free cash flow to the firm (FCFF)

Given the assumptions made during the forecast, the future free cash flow to the firm can be calculated by the following formula:

$$FCFF = EBIT \times (1 - \tau_c) + Depreciation - Capital\ Expenditures - Increase\ in\ Net\ working\ Capital$$

*Equation 3: FCFF calculation. Source (Berk & DeMarzo, 2017)*

Net working capital was defined earlier in section 5.9.1, and by subtracting the increase in this item from NOPLAT results in the cash flow from operations. Capital expenditures are estimated by adding the change in tangible assets each year to depreciation. The free cash flow to the firm is then calculated by subtracting capital expenditures from cash flow from operations. Table 19 shows the predicted free cash flow for Norwegian.

| NOK 1 000 | 2020e | 2021e | 2022e | 2023e | 2024e | Terminal |
|---|---|---|---|---|---|---|
| NOPLAT | 3 666 519 | 3 758 030 | 2 361 729 | 2 198 698 | 2 381 729 | 2 918 581 |
| Depreciation | 5 727 542 | 5 978 918 | 6 107 257 | 6 075 118 | 6 044 157 | 6 014 321 |
| Change in NWC | - 1 082 471 | 643 224 | - 135 069 | - 139 121 | - 143 295 | - 147 594 |
| **Cash flow from operations (CFO)** | **8 311 589** | **10 380 173** | **8 333 916** | **8 134 694** | **8 282 591** | **8 785 307** |
| Capital expenditure | 11 389 110 | 9 494 624 | 5 469 695 | 5 472 452 | 5 475 257 | 5 478 108 |
| FCFF | - 3 077 521 | 885 549 | 2 864 222 | 2 662 242 | 2 807 335 | 3 307 199 |

*Table 19: Predicted free cash flow to the firm (FCFF) (Own creation)*

The first year in the forecast, 2020, has a negative free cash flow due to higher capital expenditures and a decrease in net operating working capital due to the assumption that trade and other receivables will decrease. In the year 2021, the free cash flow is turning positive, and from the year 2022 and onwards, it is estimated to be quite stable. This is in line with the assumption that capital expenditure will decrease due to fewer investments and that there will be a focus on profitability going further.

# 6. Valuation

"A company's value stems from its ability to earn a healthy return on invested capital (ROIC) and its ability to grow" (Koller, Goedhart, & Wessels, 2015, p. 137).

## 6.1 Choice of framework

There are different reasons for carrying out a valuation of a company, whether it is for mergers and acquisitions, initial public offerings, or investment purposes (Petersen & Plenborg, 2012). In addition, there are also many different valuation approaches, Petersen & Plenborg separate between four main approaches. First, the present value approach is the most commonly used one out of the four where steams of cashflows are calculated and discounted to present value. Second, the relative valuation approach, also known as multiples. In this approach, a company is valued using different multiples based on the company´s peers. The third approach is called Liquidation. This method evaluates a company´s equity based on the value of its assets and liabilities. This is however, not an often-used method as it values the company as if it were to go out of business. The last approach, called contingent claim valuation, is the least recognized out of the four and used option pricing to value the respective firm (ibid).

Norwegian Air Shuttle will be valued using the present value approach, more specifically the Enterprise Discounted Cash Flow method. In addition, Relative Valuation will also be considered.

### 6.1.1 Enterprise Discounted Cash Flow

The discounted cash flow model is the most prominent of all the present value approaches (Petersen & Plenborg, 2012). The model is based on the firm's future performance and considers the time-value of money, and usually consist of projections for the next five to ten years (Ernst & Young, 2019). The model distinguishes between the enterprise- and equity-value approach. This depends on if the firm is being evaluated from an equity or enterprise perspective. In this valuation, the company will be valued from an enterprise perspective. When applying the DFC

model, many assumptions are made. To achieve an ideal valuation, attributes like precision and realistic assumptions are crucial, in order to deliver an output that is user friendly and understandable (Petersen & Plenborg, 2012). The future cash flows for the firm are discounted back to year zero using the weighted average cost of capital as the discount rate. See equation 4 below:

$$Enterprise\ value_0 = \sum_{t=1}^{\infty} \frac{FCFF_t}{(1 + WACC)^t}$$

*Equation 4: Enterprise value (Petersen & Plenborg, 2012, p. 234).*

Where:

FCFF = Free cash flow to firm
WACC = Weighted average cost

### 6.1.2 Relative Valuation

"In relative valuation, the objective is to value an asset based on how similar assets are currently priced by the market" (Damodaran, Damodaran on Valuation, 2006, p. 445). The assets are then compared using different multiples. Multiples can be calculated based on a firm´s revenue, book value, and various other drivers, and is usually less time consuming than using the, e.g., the discounted cash flow model (ibid.).

The EV/EBITDA and EV/EBIT multiples are commonly used financial ratios when valuing a company, especially when compared across countries (Den norske Revisorforening, n.d.). Therefore, these two multiples will be used in this relative valuation.

## 6.2 Weighted Average Cost of Capital

When evaluating a company using the discounted cash flow model, the weighted average cost of capital (WACC) is the rate of return that is used to discount the free cash flows into present value (McKinsey & Company, 2010). The WACC corresponds to the weighted average cost of equity, plus the weighted average cost of debt after tax.

The formula is given by:

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

*Equation 5: WACC calculation (McKinsey & Company, 2010)*

Where:

D = debt

E = equity

EV = Enterprise value (marked value)

$K_e$ = cost of equity

$K_d$ = cost of debt

T = company´s tax rate

### 6.2.1 Cost of equity

First, we need to calculate the cost of equity using the capital asset pricing model (CAPM). The CAPM model is used for estimating a company´s systematic risk determined by the risk-free rate, the market risk premium (MRP), and the company beta (McKinsey & Company, 2010). CAPM formula:

$$E(R_e) = r_f + \beta_e [E(R_m - R_f]$$

*Equation 6: Capital asset pricing model (CAPM) (McKinsey & Company, 2010)*

Where:

$E(R_e)$ = Expected return on equity

$R_f$ = risk-free rate

$B_e$ = equity beta

$E(R_m)$ = expected return on the market

### *Risk-free rate*

The risk-free rate reflects the rate of return an investor can expect from a risk-free investment. The rate of long-term government bonds is thought to correspond to the actual risk-free rate (McKinsey & Company, 2010). The Norwegian 10-year government bond at the end of 2019 was 1,49% (Norges Bank, n.d.) and is therefore used as the risk-free rate in the cost of equity calculation.

### *Equity beta*

The equity beta reflects the company´s riskiness and its sensitivity to the overall market, in this case, Oslo Børs Benchmark Index (OSEBX) (McKinsey & Company, 2010). Koller et al. suggest that the data include a maximum of five years to secure that the risk structure in the company stays the same (Koller, Goedhart, & Wessels, 2015), historical returns on OSEBX and Norwegian from the last five years were retrieved from Norges Bank. The data was used to calculate the covariance between OSEBX and Norwegian, then divided by OSEBX´s variance, giving us an estimated raw equity beta of 1,329. The beta is then adjusted by applying the smoothing process by Bloomberg (Blume, 1975):

$$Adjusted\ Beta = 0{,}33 + 0{,}67 * 1{,}329 = 1{,}22$$

### *Market risk premium*

The market risk premium (MRP) is the expected return of the market portfolio after subtracting the risk-free rate. It usually varies between 4,5 and 5,5 percent and is more problematic to measure (McKinsey & Company, 2010). In Norway, the market risk premium was 5% in 2019,

unchanged from the year before, and will, therefore, be the rate used in this calculation (PWC, 2019).

Expected return on equity:

$$R_e = 0{,}0149 + 1{,}22 * 0{,}05 = 0{,}0759$$

### 6.2.2 Cost of debt

"The cost of debt measures the current cost to the firm of borrowing funds to finance its assets" (Damodaran, Damodaran on Valuation, 2006, p. 131). The cost of debt should reflect the company's default risk, the higher the default risk, the higher cost of debt (ibid). Two factors are deciding the default. First, a company's ability to generate cash flows, and second, their financial situation (ibid.).

As a company´s perceived default risk rises, so will the default spread (Damodaran, Damodaran on Valuation, 2006). The default spread, together with the risk-free rate, makes up the company´s cost of debt. Damodaran distinguishes between three ways to calculate the default spread. The most common way to measure a company's default risk is using a bond rating by Moody´s or Standard & Poor´s. The second option is to look at the company´s recent borrowing history and get an understanding of what default spreads the company is paying for the debt (ibid.). Alternatively, option three, estimate a synthetic credit rating and default spread based on the company´s different financial ratios (ibid.).

Norwegian Air Shuttle recently got rated by Moody´s to Ba1 and B2 (Moody´s, 2020). According to Damodaran´s table for default spread (Damodaran, Ratings, Interest Coverage Ratios and Default Spread, 2020), the spread for Ba1 and B2 is 2 percent and 4,21 percent. The following formula for the cost of debt will be used:

$$r_d = (r_f + r_s) * (1 - t)$$

*Equation 7: Cost of debt (Petersen & Plenborg, 2012)*

Where:

$r_f$ = Risk-free rate

$r_s$ = Credit spread

t = Corporate tax rate

By adding the credit spread from the bond rating to the 10-year Norwegian bond, it yields a pretax cost of debt of 3,49 percent and 5,7 percent.

According to option two, it is assumed that the cost of debt will be the same in the forecast period as it was in 2019. After dividing last year's interest expensed by the associated net interest-bearing debt, effective interest rate is equal to 5,275 percent. Since the first method provided two very different results, the cost of debt is set to 5,275 percent.

### 6.2.3 WACC

After putting all the estimates into the formula, the following WACC for the forecast period is predicted to be:

| **WACC forecast period** | |
|---|---|
| Cost of Equity | 7,59% |
| After-tax Cost of Debt | 4,10% |
| Current Capital Structure: | |
| Debt-to-EV | 97% |
| Equity-to-EV | 3% |
| **Value of Debt (NIBD)** | 58 281 900 105 |
| **Value of Equity** | 1 840 031 741 |
| *Current share price NOK* | 11,25 |
| *Shares outstanding* | 163 558 377 |
| **WACC** | **4,20%** |

| **WACC terminal value** | |
|---|---|
| Cost of Equity | 7,59% |
| After-tax Cost of Debt | 4,10% |
| Target Capital Structure: | |
| Debt-to-EV | 55% |
| Equity-to-EV | 45% |
| **Value of Debt (NIBD)** | |
| **Value of Equity** | |
| *Current share price NOK* | 11,25 |
| *Shares outstanding* | 163 558 377 |
| **WACC** | **5,67%** |

*Table 20 and Table 21: Estimated WACC forecast period and terminal period (Own creation)*

As seen from the tables above, the predicted weighted average cost of capital is 4,2 percent in the forecasted years and 5,67 percent in the terminal period. This seems credible, as Damodaran´s industry average for air transport in Europe is 5,74 percent (Damodaran, Damodaran Online, 2020). The first calculation being significantly lower than the industry target can be explained by Norwegian´s high debt ratio, which again affects the capital structure when calculating WACC.

## 6.3 Terminal growth

As the terminal period reflects a steady-state environment and that the estimated value drivers will stay constant, the growth in the terminal period should reflect the expected long-term growth in the economy as a whole (Petersen & Plenborg, 2012).

In 2019, the gross domestic product (GDP) growth in Norway was 1,2 % (Statistisk sentralbyrå, 2020). In a press release from the European Commission, they forecast a projection that the euro area's GDP growth will remain stable at 1,2 % in 2020 and 2021 (European Comission, 2020). As the terminal period is set to the year 2025, it has been chosen to reduce this growth with 0,2 %, which also reflects Norwegian's future business strategy to move from growth to profitability. The terminal growth is therefore estimated to 1 percent. Other value drivers will stay constant, except the WACC, which was discussed in section 6.2 above.

## 6.4 DFC (share price)

After a thorough strategic and financial analysis of Norwegian Air Shuttle´s revenue, expenditures and other projections have been forecasted. As previously mentioned, the discounted enterprise cash flow model is used in this valuation with WACC as a discount factor. The forecast extends over five years in addition to the terminal value. It is assumed that the cash flow is evenly generated throughout every year.

Norwegian´s current WACC is estimated to 4,2 percent; however, is it not considered realistic that the company´s capital structure remains the same in perpetuity. It is assumed that Norwegian

Air Shuttle will reach the same capital structure as the industry average for air transport, making the WACC 5,67 percent. When calculating the terminal value, the terminal growth rate is set to 1 percent, and the WACC based on the industry average is adopted, estimating the present value of the terminal value to 55,89 billion NOK.

The present value of the cash flows and the terminal value make up the estimated enterprise value. By subtracting net interest-bearing debt from the enterprise value and dividing (equity value) by the total number of shares, it is obtained a share price of 15,76 NOK per 10.03.2020, as shown in table 22.

| DCF-valuation | 2020 | 2021 | 2022 | 2023 | 2024 | Terminal |
|---|---|---|---|---|---|---|
| FCF | - 3 077 520 953 | 885 548 545 | 2 864 221 684 | 2 662 242 233 | 2 807 334 649 | 3 307 199 231 |
| WACC | 4,20% | 4,20% | 4,20% | 4,20% | 4,20% | 5,67% |
| Discount factor | 0,96 | 0,92 | 0,88 | 0,85 | 0,81 | |
| PV (FCF) | - 2 953 481 498 | 815 603 059 | 2 531 665 577 | 2 258 294 168 | 2 285 390 228 | |

| | |
|---|---|
| PV (FCF) - budget period | 4 937 471 534 |
| Terminal value | 71 578 831 427 |
| PV of TV | 55 922 170 631 |
| **Enterprise value** | **60 859 642 165** |
| Net interest bearing debt | 58 281 900 105 |
| **Estimated value of equity** | **2 577 742 059** |
| | |
| Number of shares | 163 558 377 |
| **Price per share** | **15,76** |

*Table 22: DCF model, obtaining a share price (Own creation)*

## 6.5 Relative valuation

The peers included in this relative valuation will be SAS, Ryanair, Easyjet, WizzAir, and Lufthansa, all of them European, publicly-traded airlines. As well as comparing Norwegian to these five airlines, multiples based on Damodaran´s industry average will also be used (Damodaran, Damodaran Online, 2020)

| Valuation | | | | | | |
|---|---|---|---|---|---|---|
| Company | EV/EBITDA | | | EV/EBIT | | |
| | 2019 | 2020e | 2021e | 2019 | 2020e | 2021e |
| **NAS** | **8,5** | **6,0** | **5,9** | **75,7** | **12,9** | **12,9** |
| Ryanair | 8,1 | 5,9 | 11,4 | 13,3 | 9,9 | 58,7 |
| SAS | 2,8 | 5,3 | 4 | 6,8 | 3,3 | 11,9 |
| WizzAir | 3 | 3,1 | 4,4 | 3,9 | 6,1 | 30,4 |
| Easyjet | 4,9 | 42 | 3,1 | 9,9 | NEG | 7,4 |
| Lufthansa | 2,9 | 6,1 | 2,2 | 6,6 | NEG | 5,3 |
| Average | 5,0 | 11,4 | 5,2 | 19,4 | 8,7 | 21,1 |
| Median | 4,0 | 6,0 | 4,2 | 8,4 | 8,0 | 12,4 |
| Damoderan | 9,2 | 9,2 | 9,2 | 15,12 | 15,12 | 15,12 |

| | 2019 | 2020e | 2021e | 2019 | 2020e | 2021e |
|---|---|---|---|---|---|---|
| *Average* | | | | | | |
| EV | 36 851 263 | 122 804 760 | 56 824 482 | 15 966 619 | 43 615 395 | 105 497 196 |
| Shareprice | - 131 | 373 | - 52 | - 259 | -110,8 | 245,1 |
| *Median* | | | | | | |
| EV | 28 887 930 | 64 115 525 | 46 228 196 | 6 884 712 | 40 101 694 | 62 078 979 |
| Shareprice | 177 | 392 | 283 | 42 | 245,2 | 379,6 |
| *Damodaran* | | | | | | |
| EV | 67 283 280 | 99 099 064 | 101 261 763 | 12 466 688 | 75 792 202 | 75 574 040 |
| Shareprice | 55 | 228 | 219 | - 280 | 86 | 62 |
| Average | 101 | 994 | 449 | - 497 | 220 | 687 |

*Table 23 and Table 24: Relative valuation, obtaining a share price (Own creation & Thomson ONE, n.d.)*

It is essential to choose peers from the same industry with similar economic characteristics to get a reliable relative valuation (Petersen & Plenborg, 2012). Therefore, it is of great interest to look further into peers' economics and outlook. According to Petersen and Plenborg, enterprise-value-based multiples are influenced by different factors (Petersen & Plenborg, 2012). E.g., EV/EBIT differs concerning the company´s ROIC, WACC, growth-rate, and tax rate, while EV/EBITDA also is influenced by the depreciation rate (ibid.).

Appendix 11 shows great variety in ROIC, WACC, and growth between the airlines, also tax ranges from 13% to 30% percent making it more challenging to get an accurate valuation using the multiples.

The average and median multiples from the peers, as well as Damodarans, are used to value Norwegian by calculating a new enterprise value, then subtracting the forecasted net interest-

bearing debt (NIBD), divided on the number of shares. The future NIBD is assumed to have a constant ratio of 96,7 percent of invested capital. As seen in table 23 above, the valuation of Norwegian based on the peers and Damodaran fluctuates significantly.

Looking at the economic characteristics, SAS seems like the airline of the five with most comparable comps, especially when taking into account that Norwegian are planning on focusing on profitability rather than growth, making the two companies even more comparable. However, SAS´s multiples does not seem to fit very well with Norwegian, and the company seems to be overvalued. According to Damodarans´s multiples, which is an industry average, it is hard to interpret. Due to the variation between the companies' economic characteristics, as well as ambiguous estimates, this will not be included in the final valuation.

# 7. Sensitivity analysis

The predicted share price is based on many assumptions, and likewise, it is sensitive to changes in many inputs. It is, therefore, important to always include sensitivity analyses when forecasting (Petersen & Plenborg, 2012).

By changing critical financial value drivers, it can be explored how sensitive the estimated share price is to these changes (Koller, Goedhart, & Wessels, 2015). It is done a sensitivity analysis on both industry and company-specific value drivers, including fuel price, WACC in the terminal period, growth in the terminal period, and passenger revenue. The negative share prices are included, as it illustrates the small margins Norwegian is facing.

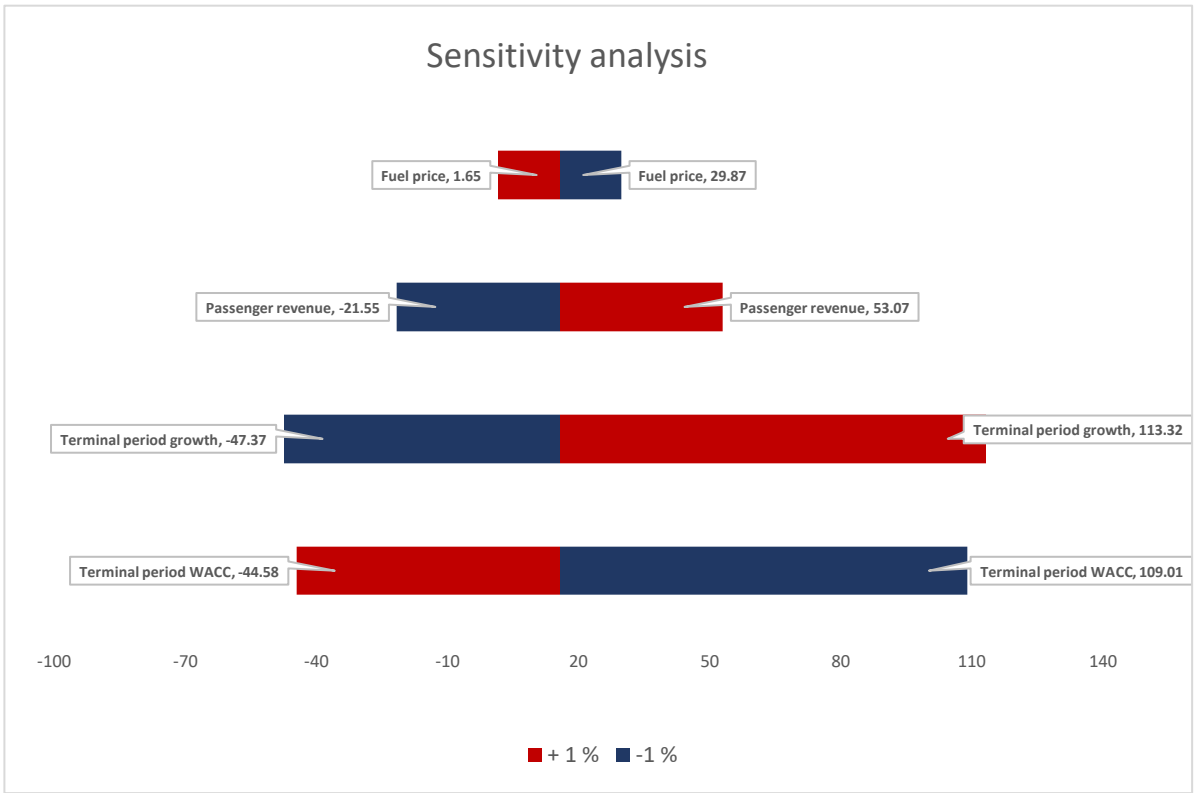



*Figure 20: Sensitivity analysis (Own creation)*

The sensitivity analysis displayed in figure 20 shows a +/- 1 % change in the chosen inputs, and it is observed how sensitive the share price is to these changes. The data labels illustrate the different value drivers and the respective share price for changes in them.

The most prominent sensitivities are the WACC and growth rate in the terminal period. Changing the WACC in the terminal period with a positive one percentage point will yield a share price of – 44,58. Similarly, a negative one percentage point change, yields a share price of 109,01. The same change in terminal growth yields a share price of 113,32 and -47,37, respectively. The terminal value accounts for a large percentage of Norwegian's estimated total value. This gives a good indication of how great the outcome can be if the assumptions about the WACC and growth change.

Low margins characterize the airline industry, and changing industry-specific factors like passenger demand and fuel prices also shows how sensitive Norwegian's share price is to this. As shown in figure 20, the impact on the share price for changes in the passenger revenue and fuel price is not as sensitive as for the changes in the terminal period. Nevertheless, as both passenger demand and oil prices are unpredictable factors, this can change quickly. Appendix 12 shows the calculation of the whole data table for the sensitivities.

# 8. Scenario analysis

In scenario analysis, different outcomes are estimated based on a pessimistic or optimistic outlook on future values (Damodaran, Damodaran on Valuation, 2006). After identifying the different scenarios, the associated cash flow is determined, and the value is calculated (ibid).

From the strategic analysis, we know that epidemics or global pandemics like SARS had a severe impact on the global aviation industry and that the Coronavirus is likely to hit the industry even harder (Pham, 2020). Due to the current situation regarding the Coronavirus the best-case and worst-case analysis is essentially based on revenue predictions from the International Air Transport Association related to the development of Covid-19.

## 8.1 Best case

According to IATA, in the best possible outcome related to the spread of the coronavirus, Europe will see a 7 percent decrease in demand in 2020 (IATA, 2020). On that basis, the best-case scenario will assume a 7 percent fall in revenues, instead of 13 percent as in base-case. In addition to revenue assumptions, it is also predicted that the oil price will be 0,5 percent lower than forecasted in base-case, resulting in an estimated share price of 39,1 NOK.

| Best Case | |
|---|---|
| PV of CF | 5 014 244 784 |
| TV | 76 368 453 920 |
| PV of TV | 59 664 144 075 |
| **Enterprise value** | **64 678 388 859** |
| Net interest bearing debt | 58 281 900 105 |
| **Equity value** | **6 396 488 753** |
| # of shares | 163 558 377 |
| Price per share | ***39,1*** |
| Trading share price | 11 |
| Difference | 248% |

*Table 25: Share price best case scenario (Own creation)*

## 8.2 Worst Case

The worst-case scenario assumes that the Corona pandemic will affect the world and aviation industry more than SARS, and more than initially feared. Based on numbers from IATA (IATA, 2020), it is assumed that the worst-case scenario, the aviation industry in Norway and other European countries, will see a 24 percent decrease in demand. This, together with worst case oil predictions will lead to a share price of 3,7 Norwegian kroner.

| Worst Case | |
|---|---|
| PV of CF | -1 077 089 480 |
| TV | 76 746 347 359 |
| PV of TV | 59 959 379 704 |
| **Enterprise value** | **58 882 290 224** |
| Net interest bearing debt | 58 281 900 105 |
| **Equity value** | **600 390 119** |
| # of shares | 163 558 377 |
| Price per share | ***3,7*** |
| Trading share price | 11 |
| Difference | -67% |

*Table 26: Share price worst case scenario (Own creation)*

## 8.3 Summary

As mentioned in the strategic analysis, epidemics and pandemics can lead to travel restrictions and closed borders (UNWTO, n.d.), which again will have a significant impact on the travel- and aviation industry. As seen in table 25 and 26 above, the two scenarios result in two very different outcomes. Depending on how long and how severe the Coronavirus will be for the aviation industry and the world as a whole, predicted share prices will vary from 3,7 NOK to 39,1 NOK.

# 9. Conclusion

The objective of this paper has been to find the fundamental value of Norwegian Air Shuttle on the 10th of March 2020. It has been conducted an in-depth strategic and financial analysis to delineate the future expectation of Norwegian, which set the foundation for the estimation of Norwegian's fair value.

The strategic analysis resulted in a clear indication of what macro-environmental factors that will have the most impact on Norwegian in the future. As the rest of the aviation industry, Norwegian is operating with low margins, making them exposed to fluctuations and changes in the business. Norwegian being an LCC is extra exposed to the fluctuations in the oil price. This, together with the recent outbreak of Covid-19, comes with many uncertainties. However, due to the Corona-epidemic, the demand for oil is falling, which in turn has caused the price to fall significantly.

In chapter four, Norwegian's financial statements were reorganized for analytical purposes. The income statement and balance sheet were regrouped into operating and nonoperating items, to ultimately be able to analyze their historical performance and value creation. Further, the performance of Norwegian was compared to SAS and Ryanair, as well as the European industry average. The financial analysis illustrates a company characterized by an extensive growth phase. Significant investments have resulted in high revenue growth the recent years, but at the same time, much debt giving rise to high liquidity risk, both short and long-term. Compared to the industry, the profitability of Norwegian has been staying well under the average. The strategic and financial analysis also reveals that Norwegian entered a new phase in 2019, focusing on profitability, which has resulted in improved performance measures.

The forecast was done in line with the company´s desire to move from growth to profitability. Also, assumptions about the recent outbreak of Covid-19 was included. Through the application of the DCF model, we obtained a share price of NOK 15,76 per 10.03.2020. In the relative valuation, we used multiples to compare the chosen peer group consisting of European publicly

traded airlines. However, due to the ambiguous estimates, we chose not to include the results of the relative valuation in the final valuation.

As the estimated share price is based on many assumptions, the valuation was followed by a scenario and sensitivity analysis. The scenario analysis deals with a “best-case” and “worst-case” scenario following the uncertainty of the COVID-10 outbreak. It was thereby estimated a share price of NOK 39,1 and NOK 3,7 depending on the severity of the virus. The sensitivity analysis also reflected the small margins Norwegian is up against, with the most sensitive value drivers being the terminal WACC and terminal growth.

Based on the findings, and taking the uncertainty about the near future into account, we recommend a hold strategy for Norwegian Air Shuttle ASA.

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# Tables

# Figures

# 11 Appendix

*Appendix 1: Deferred Taxes, Own creation*

| NOK 1000 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|
| Intangible assets | - 6 050 | - 22 907 | 25 587 | 64 645 | - 210 400 | - 471 700 | |
| Tangible assets | - 447 790 | - 129 471 | 322 945 | 337 154 | 659 800 | 1 065 800 | |
| Long term receivables and borrowings in foreign currency | - | - | - | - | - | | |
| inventories | 6 075 | 12 160 | - 15 979 | - 15 660 | - 11 700 | - 8 900 | |
| Receivables | 2 612 | 3 607 | - 4 757 | - 8 546 | - 10 500 | 2 100 | |
| Financial instruments | - 10 095 | 123 919 | - 200 371 | 84 834 | 139 100 | - 299 700 | |
| Deffered gains/losse | - 16 264 | - 43 093 | 33 846 | 49 725 | 357 700 | 207 100 | |
| Other accruals | 42 626 | 28 131 | - 27 790 | 255 398 | - 254 300 | 444 000 | |
| Pensions | 34 512 | - | - 26 173 | - 25 983 | - 35 000 | - 32 200 | |
| Other temporary differences | - 84 097 | - 53 022 | 14 145 | - 11 162 | - 310 600 | - 156 500 | |
| Loss carried forward | 62 997 | 429 740 | - 715 079 | - 980 283 | - 1 375 500 | - 2 809 400 | - 750 000 |
| Not recognized deferred tax | - | - | - | 8 379 | 32 400 | | |
| Operating deferred tax liabilties (assets) | - 396 477 | - 85 573 | 274 419 | 568 346 | 383 300 | 1 503 000 | 1 229 201 |
| Cash effect (- is outflow) | - 147 201 | 310 904 | 359 992 | 293 927 | - 185 046 | 1 119 700 | - 273 799 |
| Non-operating deferred liabilities (assets) | - 81 994 | 4 897 | - 152 966 | 170 438 | - 26 800 | - 753 000 | - 3 151 201 |
| Total deferred taxes exl loss carried forward | - 478 471 | - 80 676 | 121 453 | 738 784 | 356 500 | 750 000 | - 1 922 000 |
| Total deferred tax assets incl loss carried forward | 415 474 | - 349 064 | 593 626 | 241 499 | 1 019 000 | 2 059 400 | 2 672 000 |

*Appendix 2: Operating Cash Taxes, Own creation*

| Operating cash taxes | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Tax rates | 27 % | 27 % | 25 % | 24 % | 23 % | 22 % |
| Operating tax on adjusted EBIT | - 63 586 | 412 301 | 552 242 | - 276 723 | - 298 448 | 223 080 |
| Foreign income adjustment | 94 999 | - 66 522 | 40 835 | 153 108 | - 168 100 | - |
| Operating taxes | 31 413 | 345 779 | 593 077 | - 123 615 | - 466 548 | 223 080 |
| Nonoperating taxes | - 588 697 | - 516 893 | - 219 724 | - 644 881 | - 569 452 | - 301 580 |
| Reported taxes | - 557 284 | - 171 114 | 373 353 | - 768 496 | - 1 036 000 | - 78 500 |
| Increase in operating deferred taxes | 310 904 | 359 992 | 293 927 | - 185 046 | - 1 119 700 | - 273 799 |
| Operating cash taxes | 342 317 | 705 771 | 887 004 | - 308 661 | - 653 152 | - 50 719 |

*Appendix 3: Historic revenue & Forecast, Norwegian´s Annual reports & Own creation*

| Year | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fleet | | | | | | | | | | | | |
| B737MAX8 leased | | | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| B737MAX8 owned | | | | 6 | 14 | 14 | 30 | 40 | 45 | 50 | 55 | 60 |
| B787-8/B787-9 owned | 2 | 3 | 3 | 7 | 10 | 11 | 15 | 15 | 15 | 15 | 15 | 15 |
| B787-8/B787-9 leased | 5 | 5 | 9 | 14 | 22 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 737-800 owned | 41 | 51 | 64 | 53 | 52 | 40 | 30 | 30 | 25 | 20 | 15 | 10 |
| 737-800 leased | 42 | 40 | 40 | 64 | 62 | 61 | 53 | 41 | 41 | 41 | 41 | 41 |
| 737-300 owned | 5 | | | | | | | | | | | |
| 737-300 leased | | | | | | | | | | | | |
| Total | 95 | 99 | 116 | 144 | 164 | 156 | 158 | 156 | 156 | 156 | 156 | 156 |
| | | | | | | | | | | | | |
| Operating | | | | | | | | | | | | |
| B737MAX8 | 0 | 0 | 0 | 6 | 18 | *18* | *34* | 44 | 49 | 54 | 59 | 64 |
| B787-8/B787-9 | 7 | 8 | 12 | 21 | 32 | 37 | 41 | 41 | 41 | 41 | 41 | 41 |
| 737-800 | 83 | 91 | 104 | 117 | 114 | 101 | 83 | 71 | 66 | 61 | 56 | 51 |
| 737-300 | 5 | - | - | - | - | - | - | - | - | - | - | - |
| Load factor | 80,90% | 86,20% | 87,70% | 87,50% | 85,50% | 86,60% | 80% | 86,00% | 86,00% | 86,60% | 86,60% | 86,60% |
| Total operating revenue | 19 540 039 | 22 483 544 | 25 950 554 | 30 948 264 | 40 265 500 | 43 521 900 | | | | | | |
| Predicted revenue growth | | | | | | | -13% | 12% | 3% | 3% | 3% | 3% |
| | | | | | | | | | | | | |
| Passengers (million) | 24 | 25,8 | 29,3 | 33,1 | 37,34 | 36,2 | 29,0 | 32,4 | 33,4 | 34,0 | 34,5 | 35,0 |
| ASK | 46 479 | 49 028 | 57 910 | 72 341 | 99 220 | 100 031 | 87 027 | 97 470 | 100 394 | 101 000 | 101 000 | 101 000 |
| Unit revenue (RASK) | | | 0,36 | 0,34 | 0,33 | 0,35 | 0,34 | 0,34 | 0,35 | 0,36 | 0,36 | 0,37 |
| Ancillary revenue per passenger | | | 134 | 145 | 168 | 184 | 200 | 220 | 220 | 220 | 220 | 220 |
| | | | | | | | | | | | | |
| Passenger revenue | 16 254 622 | 18 505 762 | 21 095 595 | 24 719 086 | 32 560 100 | 35 216 300 | 29 589 170 | 33 139 870 | 35 138 009 | 36 360 000 | 36 360 000 | 37 370 000 |
| In % of total revenue | 83,19% | 82,31% | 81,29% | 79,87% | 80,86% | 80,92% | 78,15% | 78,15% | 80,44% | 80,82% | 78,46% | 78,29% |
| | | | | | | | | | | | | |
| Ancillary revenue | 2 727 439 | 3 275 289 | 3 928 978 | 4 822 516 | 6 266 600 | 6 651 500 | 5 792 000 | 7 992 033 | 7 570 311 | 7 704 400 | 7 817 700 | 7 931 000 |
| In % of total revenue | 13,96% | 14,57% | 15,14% | 15,58% | 15,56% | 15,28% | 15,30% | 18,85% | 17,33% | 17,12% | 16,87% | 16,62% |
| | | | | | | | | | | | | |
| Other revenue | 557 978 | 702 493 | 925 981 | 1 406 661 | 1 438 900 | 1 654 100 | 2 482 883 | 1 275 836 | 971 651 | 925 971 | 2 162 382 | 2 429 284 |
| In% of total revenue | 2,86% | 3,12% | 3,57% | 4,55% | 3,57% | 3,80% | 6,56% | 3,01% | 2,22% | 2,06% | 4,67% | 5,09% |
| | | | | | | | | | | | | |
| Predicted revenue (base case) | | | | | | | 37 864 053 | 42 407 739 | 43 679 972 | 44 990 371 | 46 340 082 | 47 730 284 |

*Appendix 4: Fuel forecast, Own creation*

| Aircraft fleet | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Long-haul:** | | | | | | | | | | | | |
| 787-8/787-9 | 4 | 8 | 12 | 21 | 32 | 37 | 41 | 41 | 41 | 41 | 41 | 41 |
| **Total Long-haul** | **4** | **8** | **12** | **21** | **32** | **37** | **41** | **41** | **41** | **41** | **41** | **41** |
| **Short-haul:** | | | | | | | | | | | | |
| 737-300 | 5 | | | | | | | | | | | |
| 737-800 | 83 | 91 | 104 | 117 | 114 | 101 | 83 | 71 | 66 | 61 | 56 | 51 |
| 737-MAX8 | | | | 6 | 18 | 18 | 17 | 44 | 49 | 54 | 59 | 64 |
| **Total Short-haul** | **88** | **91** | **104** | **123** | **132** | **119** | **100** | **115** | **115** | **115** | **115** | **115** |
| Total | 92 | 99 | 116 | 144 | 164 | 156 | 141 | 156 | 156 | 156 | 156 | 156 |
| *y-o-y growth %* | *8,24%* | *7,61%* | *17,17%* | *24,14%* | *13,89%* | *-4,88%* | *-9,62%* | *10,64%* | *0,00%* | *0,00%* | *0,00%* | *0,00%* |
| Load factor | 80,90% | 86,20% | 87,70% | 87,50% | 85,50% | 86,60% | 80,00% | 86,00% | 86,00% | 86,60% | 86,60% | 86,60% |
| Total operating revenue | 19540039 | 22483544 | 25950554 | 30948264 | 40265500 | 43521900 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| Portion short-haul | 95,65% | 91,92% | 89,66% | 85,42% | 80,49% | 76,28% | 70,92% | 73,72% | 73,72% | 73,72% | 73,72% | 73,72% |
| *y-o-y growth %* | *-0,85%* | *-3,90%* | *-2,46%* | *-4,73%* | *-5,77%* | *-5,23%* | *-7,03%* | *3,94%* | *0,00%* | *0,00%* | *0,00%* | *0,00%* |
| Portion long-haul | 4,35% | 8,08% | 10,34% | 14,58% | 19,51% | 23,72% | 29,08% | 26,28% | 26,28% | 26,28% | 26,28% | 26,28% |
| *y-o-y growth %* | *23,19%* | *85,86%* | *28,02%* | *40,97%* | *33,80%* | *21,55%* | *22,60%* | *-9,62%* | *0,00%* | *0,00%* | *0,00%* | *0,00%* |
| Fuel consumption (metric tonnes) | 965 575 | 1 015 337 | 1 190 017 | 1 465 100 | 1 956 174 | 1 918 000 | 2 050 936 | 2 125 699 | 2 117 911 | 2 110 123 | 2 102 336 | 2 094 548 |
| *y-o-y growth %* | *31,34%* | *5,15%* | *17,20%* | *23,12%* | *33,52%* | *-1,95%* | *6,93%* | *3,65%* | *-0,37%* | *-0,37%* | *-0,37%* | *-0,37%* |
| | | | | | | | | | | | | |
| **Computations** | | | | | | | | | | | | |
| Fuel consumption per short-haul | 7 788 | 7 788 | 7 788 | 7 712 | 7 575 | 7 552 | 7 523 | 7 192 | 7 124 | 7 056 | 6 989 | 6 921 |
| Total fuel consumption short-haul | 685 324 | 708 687 | 809 928 | 948 550 | 999 949 | 898 708 | 752 298 | 827 061 | 819 273 | 811 485 | 803 698 | 795 910 |
| *y-o-y growth %* | *7,32%* | *3,41%* | *14,29%* | *17,12%* | *5,42%* | *-10,12%* | *-16,29%* | *9,94%* | *-0,94%* | *-0,95%* | *-0,96%* | *-0,97%* |
| | | | | | | | | | | | | |
| *Adjustment for Block hours:* | | | | | | | | | | | | |
| *Dev. From mean (%)* | *0,86%* | *0,86%* | *-1,77%* | *-0,88%* | *8,00%* | *1,71%* | | | | | | |
| *Fuel consumption per short-haul* | *7854,90* | *7854,90* | *7649,93* | *7644,14* | *8181,40* | *7681,27* | | | | | | |
| *Fuel consumption per long-haul* | | | | | | | | | | | | |
| *Average 373-800* | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Fuel consumption per long-haul | 70 063 | 38 331 | 31 674 | 24 598 | 29 882 | 27 548 | 31 674 | 31 674 | 31 674 | 31 674 | 31 674 | 31 674 |
| Total fuel consumption long-haul | 280 251 | 306 650 | 380 089 | 516 550 | 956 225 | 1 019 292 | 1 298 638 | 1 298 638 | 1 298 638 | 1 298 638 | 1 298 638 | 1 298 638 |
| *y-o-y growth %* | *190,24%* | *9,42%* | *23,95%* | *35,90%* | *85,12%* | *6,60%* | *27,41%* | *0,00%* | *0,00%* | *0,00%* | *0,00%* | *0,00%* |

| *Fuel consumption per airline type* | |
|---|---|
| Dreamliner | **31 674** |
| Max 8 | **6 230** |

| Exspense fuel | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jet-fuel price per NOK/metric tonnes | 6 546 | 5 106 | 4 246 | 5 009 | 6 422 | 6 573 | 3 718 | 4 758 | 5 496 | 6 183 | 6 698 | 7 016 |
| Fuel expense | | | | | | | 7 626 223 530 | 10 113 022 352 | 11 640 112 075 | 13 046 974 021 | 14 082 057 121 | 14 695 412 923 |
| Aviation fuel expense (1000) | 6 321 053 | 5 184 475 | 5 052 906 | 7 339 171 | 12 562 200 | 12 607 100 | 7 626 224 | 10 113 022 | 11 640 112 | 13 046 974 | 14 082 057 | 14 695 413 |
| y-o-y growth % | 34,28% | -17,98% | -2,54% | 45,25% | 71,17% | 0,36% | -39,51% | 32,61% | 15,10% | 12,09% | 7,93% | 4,36% |
| Predited price increase from 2019 | | | | | | | -65% | 24,6% | 13,1% | 10,8% | 7,4% | 4,2% |
| | | | | | | | | | | | | |
| Predicted fuel expense | | | | | | | 7 626 224 | 10 113 022 | 11 640 112 | 13 046 974 | 14 082 057 | 14 695 413 |
| | | | | | | | | | | | | |
| Predicted fuel expense adj for ASK | | | | | | | 6 634 814 | 8 899 460 | 11 640 112 | 13 046 974 | 14 082 057 | 14 695 413 |

*Appendix 5: Predicted oil price, IATA & Own creation*

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|
| Crude oil | 64 | 43,3 | 55,4 | 64,0 | 72,0 | 78,0 | 81,7 |
| Jet-fuel price | 81,5 | 55,14 | 70,55 | 81,50 | 91,69 | 99,33 | 104,04 |

*Appendix 6: Predicted fuel prices and consumption, IATA & Own creation*

| Forecast Base case | | | | | | | |
|---|---|---|---|---|---|---|---|
| Commodity | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Crude oil $/bbl | 64,0 | 43,3 | 55,4 | 64,0 | 72,0 | 78,0 | 81,7 |
| Crude oil $/metric tonnes | 469,1 | 317,4 | 406,1 | 469,1 | 527,8 | 571,7 | 598,9 |
| Crude oil NOK/metric tonnes | 4315,9 | 2920,0 | 3736,0 | 4315,9 | 4855,4 | 5260,0 | 5509,5 |
| y-o-y growth % | | -32,34% | 27,94% | 15,52% | 12,50% | 8,33% | 4,74% |
| | | | | | | | |
| **Jet-fuel price average 2019 $/bbl** | 81,50 | 55,14 | 70,55 | 81,50 | 91,69 | 99,33 | 104,04 |
| $/metric tonnes | 597,40 | 404,18 | 517,12 | 597,40 | 672,07 | 728,08 | 762,61 |
| **NOK/metric tonnes** | **5496,0** | **3718,4** | **4757,5** | **5496,0** | **6183,0** | **6698,3** | **7016,0** |
| NOK/bbl | 749,80 | 507,29 | 649,05 | 749,80 | 843,53 | 913,82 | 957,17 |

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|
| Consumption forecast (metric tonnes) | | | | | | | |
| NOK/metric tonnes | 5 496 | 3 718 | 4 758 | 5 496 | 6 183 | 6 698 | 7 016 |
| Aviation fuel expense | | | | | | | |

| Annual average growth (absolute value) | 2,3 |
|---|---|

*Appendix 7: Predicted Technical Maintenance Expense, Own creation*

| NOK 1000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PPE | 25 882 979 | 35 992 521 | 45 557 791 | 50 831 238 | 62 649 000 | 61 002 071 | 34 991 494 | 38 227 678 | 37 453 390 | 36 710 073 | 35 996 488 | 35 311 447 |
| Maintenance post | 2 125 515 | 2 894 060 | 3 241 450 | 5 385 949 | 6 681 200 | 5 765 700 | 2 978 163 | 3 253 598 | 3 187 697 | 3 124 433 | 3 063 699 | 3 005 394 |
| % of PPE | 8,21% | 8,04% | 7,12% | 10,60% | 10,66% | 9,45% | 8,51% | 8,51% | 8,51% | 8,51% | 8,51% | 8,51% |
| | | | | | | | | | | | | |
| Average % of PPE | | | | | | | | | | | | |
| leased | 47 | 45 | 49 | 78 | 88 | 91 | 83 | 71 | 71 | 71 | 71 | 71 |
| | 49% | 45% | 42% | 54% | 54% | 58% | 53% | 46% | 46% | 46% | 46% | 46% |
| | | | | | | | | | | | | |
| Change in predicted PPE | 7 407 855 | 10 090 308 | 9 565 270 | 5 273 447 | 11 817 762 | - 34 776 200 | - 22 254 781 | 3 236 184 | - 774 289 | - 743 317 | - 713 584 | - 685 041 |
| | | | | | | | | | | | | |
| B737MAX8 leased | - | - | - | - | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| *Value of leased* | | | | | **1 854 338** | - | - | - | - | - | - | - |
| B787-8/B787-9 leased | 5 | 5 | 9 | 14 | 22 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| *Value of leased* | **2 564 051** | - | **3 418 734** | **4 273 418** | **6 837 469** | **3 418 734** | - | - | - | - | - | - |
| 737-800 leased | 42 | 40 | 40 | 64 | 62 | 61 | 53 | 41 | 41 | 41 | 41 | 41 |
| *Value of leased* | - | - **625 241** | - | **7 502 897** | - **625 241** | - **312 621** | - **2 500 966** | - **3 751 448** | - | - | - | - |
| 737-300 leased | - | - | - | - | - | - | - | - | - | - | - | - |
| *Value of leased* | - **567 686** | - | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| Total increase in leased aircrafts | 1 996 365 | - 625 241 | 3 418 734 | 11 776 314 | 8 066 565 | 3 106 114 | - 2 500 966 | - 3 751 448 | - | - | - | - |
| % of change in PPE | 27% | -6% | 36% | 223% | 68% | -9% | 11% | -116% | | | | |
| Average: | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| NOK 1000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e |
| Aircraft fleet | 95 | 99 | 116 | 144 | 164 | 156 | 158 | 156 | 156 | 156 | 156 | 156 |
| y-o-y growth % | 11,76% | 4,21% | 17,17% | 24,14% | 13,89% | -4,88% | 1,28% | -1,27% | 0,00% | 0,00% | 0,00% | 0,00% |
| | | | | | | | | | | | | |
| Prov. For periodic. Maintenance (leased) | 835 480 | 1 177 513 | 1 376 465 | 2 679 400 | 3 187 500 | 3 187 500 | 3 228 365 | 3 187 500 | 3 187 500 | 3 187 500 | 3 187 500 | 3 187 500 |
| *% of Total* | *39%* | *41%* | *42%* | *50%* | *48%* | *49%* | | | | | | |
| | | | | | | | | | | | | |
| Technical maintenance (owned aircafts) | 1 290 035 | 1 716 547 | 1 864 985 | 2 706 549 | 3 493 700 | 3 379 200 | 3 422 523 | 3 379 200 | 3 379 200 | 3 379 200 | 3 379 200 | 3 379 200 |
| *% of Total* | *61%* | *59%* | *58%* | *50%* | *52%* | *51%* | | | | | | |
| | | | | | | | | | | | | |
| Total maintenance expense | 2 125 515 | 2 894 060 | 3 241 450 | 5 385 949 | 6 681 200 | 6 566 700 | 6 650 888 | 6 566 700 | 6 566 700 | 6 566 700 | 6 566 700 | 6 566 700 |

*Appendix 9: Predicted Invested Capital, Own creation*

| NOK 1000 | 2 013 | 2 014 | 2 015 | 2 016 | 2 017 | 2 018 | 2 019 | 2 020 | 2 021 | 2 022 | 2 023 | 2 024 | 2 025 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Reformulated balance sheet** | | | | | | | | | | | | | |
| Inventory | 74 135 | 82 851 | 104 142 | 102 465 | 101 890 | 167 300 | 175 700 | 153 379 | 171 784 | 176 938 | 182 246 | 187 713 | 193 345 |
| Trade and other receivables | 1 623 079 | 2 173 522 | 2 550 716 | 3 013 978 | 4 357 571 | 6 752 600 | 10 132 900 | 7 951 451 | 8 905 625 | 9 172 794 | 9 447 978 | 9 731 417 | 10 023 360 |
| Operating cash | 310 224 | 390 801 | 449 671 | 519 011 | 618 965 | 805 312 | 870 438 | 757 281 | 848 155 | 873 599 | 899 807 | 926 802 | 954 606 |
| **Total Current Operating Assets** | **2 007 438** | **2 647 174** | **3 104 529** | **3 635 454** | **5 078 426** | **7 725 212** | **11 179 038** | **8 862 111** | **9 925 564** | **10 223 331** | **10 530 031** | **10 845 932** | **11 171 310** |
| Tax payable | 2 | 2 210 | 32 125 | 7 650 | 49 627 | 31 400 | - | - | - | - | - | - | - |
| Air traffic settlement liabilities | 2 566 519 | 2 965 427 | 4 014 428 | 4 666 212 | 6 493 615 | 6 907 300 | 6 106 500 | 5 950 174 | 6 128 679 | 6 312 539 | 6 501 915 | 6 696 973 | 6 897 882 |
| Trade and other payables | 1 949 693 | 2 680 445 | 2 862 566 | 3 881 684 | 5 568 261 | 8 011 800 | 9 135 600 | 8 057 470 | 8 299 195 | 8 548 170 | 8 804 616 | 9 068 754 | 9 340 817 |
| **Total Current operating liabilites** | **4 516 214** | **5 648 082** | **6 909 119** | **8 555 546** | **12 111 503** | **14 950 500** | **15 242 100** | **14 007 644** | **14 427 873** | **14 860 710** | **15 306 531** | **15 765 727** | **16 238 699** |
| **Net operating working capital** - | 2 508 776 - | 3 000 908 - | 3 804 590 - | 4 920 092 - | 7 033 077 - | 7 225 288 - | 4 063 062 - | 5 145 533 - | 4 502 309 - | 4 637 378 - | 4 776 500 | 4 919 795 - | 5 067 389 |
| | | -15 % | -17 % | -19 % | -23 % | -18 % | -9 % | -14 % | -11 % | -11 % | -11 % | -11 % | -11 % |
| Owned aircraft, parts and installations on leased air | 7 526 707 | 12 527 932 | 18 507 706 | 22 571 775 | 25 861 883 | 31 064 200 | 27 392 000 | 34 991 494 | 38 227 678 | 37 453 390 | 36 710 073 | 35 996 488 | 35 311 447 |
| Total right of use asset | | | | | | | 33 578 400 | 32 745 132 | 32 508 229 | 32 500 356 | 32 492 070 | 32 483 349 | 32 474 170 |
| Equipment and fixtures | 72 972 | 83 687 | 79 508 | 88 361 | 90 458 | 211 400 | 211 400 | | | | | | |
| Buildings | 14 966 | 252 236 | 285 674 | 283 236 | 279 462 | 269 400 | 250 200 | - | - | - | - | - | - |
| Prepayment to aircraft manufacturers | 2 514 882 | 4 102 664 | 5 939 281 | 7 156 303 | 5 219 372 | 8 561 300 | 4 946 600 | 4 303 542 | 4 819 967 | 4 964 566 | 5 113 503 | 5 266 908 | 5 424 915 |
| **Sum Tangible assets** | **10 129 527** | **16 966 519** | **24 812 169** | **30 099 675** | **31 451 175** | **40 106 300** | **66 378 600** | **72 040 168** | **75 555 874** | **74 918 312** | **74 315 646** | **73 746 745** | **73 210 533** |
| Intangible assets | 236 216 | 206 826 | 206 675 | 198 260 | 201 383 | 212 300 | 198 600 | 199 638 | 223 595 | 230 302 | 237 211 | 244 328 | 251 658 |
| of which Software | 101 878 | 83 434 | 83 283 | 75 044 | 63 095 | 64 500 | 64 500 | 60 653 | 67 932 | 69 970 | 72 069 | 74 231 | 76 458 |
| of wich Goodwill and other intangibles | 134 338 | 123 392 | 123 392 | 123 216 | 138 288 | 147 800 | 134 100 | 138 985 | 155 663 | 160 333 | 165 143 | 170 097 | 175 200 |
| Other Receivables | 199 036 | 421 060 | 501 811 | 623 606 | 789 974 | 1 142 400 | 1 485 000 | | | | | | |
| Fixed asset investment | | | | | | | | 1 485 000 | 1 485 000 | 1 485 000 | 1 485 000 | 1 485 000 | 1 485 000 |
| **Total Non-Current Operating Assets** | **10 564 779** | **17 594 405** | **25 520 655** | **30 921 541** | **32 442 532** | **41 461 000** | **68 062 200** | **73 724 806** | **77 264 469** | **76 633 614** | **76 037 857** | **75 476 073** | **74 947 191** |
| Capitalized operating lease | 10 858 471 | 13 019 124 | 17 119 633 | 22 614 419 | 24 599 435 | 31 104 000 | | | | | | | - |
| **Total Non-Current Operaing Assets including capitali** | **21 423 250** | **30 613 529** | **42 640 288** | **53 535 960** | **57 041 967** | **72 565 000** | **68 062 200** | **73 724 806** | **77 264 469** | **76 633 614** | **76 037 857** | **75 476 073** | **74 947 191** |
| Provision for periodic maintenance | 412 737 | 835 480 | 1 177 513 | 1 376 465 | 2 679 400 | 3 187 500 | 3 654 500 | 3 179 415 | 3 560 945 | 3 667 773 | 3 777 806 | 3 891 141 | 4 007 875 |
| **Total Non-current Operating Liabilities** | **412 737** | **835 480** | **1 177 513** | **1 376 465** | **2 679 400** | **3 187 500** | **3 654 500** | **3 179 415** | **3 560 945** | **3 667 773** | **3 777 806** | **3 891 141** | **4 007 875** |
| Invested Capital excluding capitalized operating leas | 7 643 266 | 13 758 017 | 20 538 552 | 24 624 984 | 22 730 055 | 31 048 212 | 60 344 638 | 65 399 858 | 69 201 215 | 68 328 462 | 67 483 551 | 66 665 138 | 65 871 927 |
| Capitalized operating lease | 10 858 471 | 13 019 124 | 17 119 633 | 22 614 419 | 24 599 435 | 31 104 000 | | | | | | | |
| **Invested Capital including capitalized operating leas** | **18 501 737** | **26 777 140** | **37 658 184** | **47 239 403** | **47 329 490** | **62 152 212** | **60 344 638** | **65 399 858** | **69 201 215** | **68 328 462** | **67 483 551** | **66 665 138** | **65 871 927** |

*Appendix 8: Invested Capital, Own creation*

| NOK 1 000 | 2020 | 2021 | 2022 | 2024 | 2024 | 2025 |
|---|---|---|---|---|---|---|
| Inventory | 153 379 | 171 784 | 176 938 | 182 246 | 187 713 | 193 345 |
| Trade and other receivables | 7 951 451 | 8 905 625 | 9 172 794 | 9 447 978 | 9 731 417 | 10 023 360 |
| Operating cash | 757 281 | 848 155 | 873 599 | 899 807 | 926 802 | 954 606 |
| *Total Current Operating Assets* | *8 862 111* | *9 925 564* | *10 223 331* | *10 530 031* | *10 845 932* | *11 171 310* |
| Air traffic settlement liabilities | 5 950 174 | 6 128 679 | 6 312 539 | 6 501 915 | 6 696 973 | 6 897 882 |
| Trade and other payables | 8 057 470 | 8 299 195 | 8 548 170 | 8 804 616 | 9 068 754 | 9 340 817 |
| *Total Current operating liabilites* | *14 007 644* | *14 427 873* | *14 860 710* | *15 306 531* | *15 765 727* | *16 238 699* |
| **Net operating working capital** | **- 5 145 533** | **- 4 502 309** | **- 4 637 378** | **- 4 776 500** | **- 4 919 795** | **- 5 067 389** |
| Property, plant and equipment (PPE) | 34 991 494 | 38 227 678 | 37 453 390 | 36 710 073 | 35 996 488 | 35 311 447 |
| Total right of use asset | 32 745 132 | 32 508 229 | 32 500 356 | 32 492 070 | 32 483 349 | 32 474 170 |
| Prepayment to aircraft manufacturers | 4 303 542 | 4 819 967 | 4 964 566 | 5 113 503 | 5 266 908 | 5 424 915 |
| *Sum Tangible assets* | *72 040 168* | *75 555 874* | *74 918 312* | *74 315 646* | *73 746 745* | *73 210 533* |
| Intangible assets | 199 638 | 223 595 | 230 302 | 237 211 | 244 328 | 251 658 |
| of which Software | 60 653 | 67 932 | 69 970 | 72 069 | 74 231 | 76 458 |
| of wich Goodwill and other intangibles | 138 985 | 155 663 | 160 333 | 165 143 | 170 097 | 175 200 |
| Fixed asset investment | 1 485 000 | 1 485 000 | 1 485 000 | 1 485 000 | 1 485 000 | 1 485 000 |
| **Total Non-Current Operating Assets** | **73 724 806** | **77 264 469** | **76 633 614** | **76 037 857** | **75 476 073** | **74 947 191** |
| Provision for periodic maintenance | 3 179 415 | 3 560 945 | 3 667 773 | 3 777 806 | 3 891 141 | 4 007 875 |
| **Total Non-current Operating Liabilities** | **3 179 415** | **3 560 945** | **3 667 773** | **3 777 806** | **3 891 141** | **4 007 875** |
| Invested Capital | 65 399 858 | 69 201 215 | 68 328 462 | 67 483 551 | 66 665 138 | 65 871 927 |

*Appendix 10: Relative Valuation, Thomson One & Own creation*

| | | | Market Data | | | | | | Financial Data | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Currency | Price | Market Cap | | EV | | | EBITDA | | | EBIT | | |
| | | | | 2019 | 2020e | 2021e | 2019 | 2020e | 2021e | 2019 | 2020e | 2021e |
| NAS | NOK | 11 | 948,64 | 62 406 800 | 64 678 389 | 64 678 389 | 7 313 400 | 10 771 637 | 11 006 713 | 824 516 | 5 012 712 | 4 998 283 |

*Appendix 11: Relative Valuation Ratios, Thomson ONE & Own creation*

| | ROIC | WACC | TAX | G last 12 months |
|---|---|---|---|---|
| **NAS** | 1,74% | 4,20% | 22% | |
| Ryanair | 10,90% | 7,22% | 13% | 10,8% |
| SAS | 6,10% | 3,64% | 21% | 3,6% |
| Easyjet | 8,50% | 10,16% | 19% | 8,3% |
| WizzAir | 21,10% | N/A | 18% | 19,0% |
| Lufthansa | 7,60% | 4,79% | 30% | 1,6% |

*Appendix 12: Sensitivity Analysis, Own Creation*

**SENSITIVITY TERMINAL WACC**

| Change in WACC | - 1% | - 0,5% | 0 % | + 0,5% | + 1% |
|---|---|---|---|---|---|
| Terminal WACC | 4,7 % | 5,2 % | 5,7 % | 6,2 % | 7 % |
| Share price | 109,01 | 56,79 | 15,76 | - 17,33 | - 44,58 |

**SENSITIVITY TERMINAL GROWTH**

| Change in terminal growth | - 1% | - 0,5% | 0 % | + 0,5% | + 1% | + 2% |
|---|---|---|---|---|---|---|
| Terminal growth | 0,0 % | 0,5% | 1,0 % | 1,5 % | 2,0% | 3 % |
| Share price | - 47,37 | - 18,86 | 15,76 | 58,69 | 113,32 | 284,05 |

**SENSITIVITY PASSENGER REVENUE**

| Change in passenger revenue | - 5% | - 3% | - 1% | 0 % | + 1% | + 3% | + 5% |
|---|---|---|---|---|---|---|---|
| Passenger revenue | -5,0 % | -3,0% | -1,0 % | 0,0 % | 1,0% | 3,0 % | 5,0 % |
| Share price | - 170,78 | - 96,16 | - 21,55 | 15,76 | 53,07 | 127,69 | 202,30 |

**SENSITIVITY FUEL PRICE**

| Change in fuel price | - 5% | - 3% | - 1% | 0 % | + 1% | + 3% | + 5% |
|---|---|---|---|---|---|---|---|
| Fuel price | -5,0 % | -3,0% | -1,0 % | 0,0 % | 1,0% | 3,0 % | 5,0 % |
| Share price | 86,31 | 58,09 | 29,87 | 15,76 | 1,65 | - 26,57 | - 54,79 |

*Appendix 13: Best-Case Scenario, Own creation*

| NOK 1000 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | Averages: |
|---|---|---|---|---|---|---|---|---|
| **Income Statement Assumptions** | | | | | | | | |
| *NOPLAT items:* | | | | | | | | |
| **Total Revenues** | **43 521 900** | **40 475 367** | **42 296 759** | **43 680 016** | **44 990 416** | **46 340 129** | **47 730 332** | |
| *y-o-y growth %* | | -7,00% | 5,00% | 3,27% | 3,00% | 3,00% | 3,00% | |
| **Passenger revenue** | 35 216 300 | 31 629 802 | 33 139 870 | 35 138 009 | 36 141 953 | 36 141 953 | 36 141 953 | |
| *% of revenue* | *80,92%* | *78,15%* | *78,35%* | *80,44%* | *80,33%* | *77,99%* | *75,72%* | |
| *y-o-y growth %* | | *-10,18%* | *4,77%* | *6,03%* | *2,86%* | *0,00%* | *0,00%* | |
| **Ancillary revenue** | 6 651 500 | 6 733 200 | 7 992 033 | 7 570 311 | 7 704 400 | 7 817 700 | 7 931 000 | |
| % of revenue | 15,28% | 16,64% | 18,90% | 17,33% | 17,12% | 16,87% | 16,62% | |
| *y-o-y growth %* | | 1,23% | 18,70% | -5,28% | 1,77% | 1,47% | 1,45% | |
| **Other revenue** | 1 654 100 | 2 112 365 | 1 275 836 | 971 651 | 1 144 018 | 2 380 429 | 3 657 332 | |
| % of revenue | 3,80% | 5,22% | 3,02% | 2,22% | 2,54% | 5,14% | 7,66% | |
| *y-o-y growth %* | | 27,70% | -39,60% | -23,84% | 17,74% | 108,08% | 53,64% | |
| **Operational costs** | **25 386 800** | **18 846 232** | **22 658 521** | **24 341 105** | **25 268 632** | **26 383 313** | **27 098 929** | |
| % of revenue | 58,33% | 46,56% | 53,57% | 55,73% | 56,16% | 56,93% | 56,78% | |
| **Sales and distribution** | - | 809 507 | 845 935 | 873 600 | 899 808 | 926 803 | 954 607 | |
| % of revenue | 0,00% | 2,00% | 2,00% | 2,00% | 2,00% | 2,00% | 2,00% | 2,00% |
| **Aviation fuel** | 12 607 100 | 7 197 937 | 9 755 088 | 11 226 828 | 12 582 270 | 13 578 889 | 14 168 649 | |
| % of revenue | 28,97% | 17,78% | 23,06% | 25,70% | 27,97% | 29,30% | 29,68% | |
| **Airport charges** | 4 140 300 | 3 602 061 | 4 034 308 | 4 140 300 | 3 602 061 | 3 602 061 | 3 602 061 | |
| % of revenue | 9,51% | 8,90% | 9,54% | 9,48% | 8,01% | 7,77% | 7,55% | |
| **Handling charges** | 5 260 200 | 4 258 564 | 4 769 592 | 4 912 679 | 5 060 060 | 5 211 862 | 5 368 217 | |
| % of revenue | 12,09% | 10,52% | 11,28% | 11,25% | 11,25% | 11,25% | 11,25% | 10,52% |
| **Technical maintenance** | 3 379 200 | 2 978 163 | 3 253 598 | 3 187 697 | 3 124 433 | 3 063 699 | 3 005 394 | |
| % of revenue | 7,76% | 7,36% | 7,69% | 7,30% | 6,94% | 6,61% | 6,30% | |
| **Other aircraft expenses** | | - | - | - | - | - | - | |
| % of revenue | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | |
| **Lease expense** | - | | | | | | | |
| % of revenue | | | | | | | | |
| **Other operating expenses** | 4 850 000 | 3 440 406 | 3 595 224 | 3 712 801 | 3 712 801 | 3 712 801 | 3 712 801 | |
| *% of revenues* | 11,14% | 8,50% | 8,50% | 8,50% | 8,25% | 8,01% | 7,78% | |
| *y-o-y growth %* | | | | | | | | |
| **Payroll and other personnel expenses** | 6 817 500 | 5 917 834 | 6 627 974 | 6 826 813 | 6 868 000 | 6 868 000 | 6 868 000 | |
| % of revenues | 15,66% | 14,62% | 15,67% | 15,63% | 15,27% | 14,82% | 14,39% | 16,22% |
| *y-o-y growth %* | | -13,20% | 12,00% | 3,00% | 0,60% | 0,00% | 0,00% | |
| **Amortization, capitalized software** | - | 38 357 | 36 819 | 36 819 | 36 819 | 36 819 | 36 819 | |
| *% of prior year software intangible* | | | | | | | | |
| *% of revenue* | 0,00% | 0,09% | 0,09% | 0,08% | 0,08% | 0,08% | 0,08% | |
| *y-o-y growth %* | | | | | | | | |
| **Depreciation** | 1 774 400 | 1 114 912 | 1 399 660 | 1 529 107 | 1 498 136 | 1 468 403 | 1 439 860 | |
| **% of revenue** | 4,08% | 2,75% | 3,31% | 3,50% | 3,33% | 3,17% | 3,02% | |
| *% of prior year net PP&E* | | | | | | | | |
| *y-o-y growth %* | | | | | | | | |
| *Lease depreciation* | 4 683 100 | 4 612 630 | 4 579 259 | 4 578 150 | 4 576 982 | 4 575 754 | 4 574 461 | |
| **Impairment** | - | - | - | - | - | - | - | |
| **Other gains/(losses) - net** | - 845 800 | - | - | - | - | - | - | |
| *% of revenue* | -1,94% | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | |
| *y-o-y growth %* | | | | | | | | |
| **Total operating expenses excl. Lease. Depr. And amort.** | 36 208 500 | **28 204 472** | **32 881 719** | **34 880 719** | **35 849 433** | **36 964 114** | **37 679 730** | |
| **EBITDAR** | 7 313 400 | 12 270 895 | 9 415 039 | 8 799 296 | 9 140 983 | 9 376 015 | 10 050 602 | |
| *EBITDAR-margin* | *17%* | *30%* | *22%* | *20%* | *20%* | *20%* | *21%* | |
| **EBITDA** | 7 313 400 | 12 270 895 | 9 415 039 | 8 799 296 | 9 140 983 | 9 376 015 | 10 050 602 | |
| *EBITDA-margin* | *17%* | *30%* | *22%* | *20%* | *20%* | *20%* | *21%* | |
| **EBIT** | 855 900 | 6 504 996 | 3 399 301 | 2 655 220 | 3 029 045 | 3 295 038 | 3 999 462 | |
| *EBIT-margin* | *2%* | *16%* | *8%* | *6%* | *7%* | *7%* | *8%* | |
| Operatig cash tax | 23% | 22% | 22% | 22% | 22% | 22% | 22% | |
| NOPLAT | 659 043 | 5 073 897 | 2 651 455 | 2 071 072 | 2 362 655 | 2 570 130 | 3 119 581 | |

*Appendix 14: Worst-Case Scenario, Own Creation*

| NOK 1000 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | Averages: |
|---|---|---|---|---|---|---|---|---|
| **Income Statement Assumptions** | | | | | | | | |
| ***NOPLAT items:*** | | | | | | | | |
| **Total Revenues** | **43 521 900** | **33 076 644** | **38 038 141** | **43 736 254** | **45 048 342** | **46 399 792** | **47 791 786** | |
| *y-o-y growth %* | | -24,00% | 15,00% | 14,98% | 3,00% | 3,00% | 3,00% | |
| **Passenger revenue** | 35 216 300 | 25 848 010 | 33 139 870 | 35 138 009 | 36 141 953 | 36 141 953 | 36 141 953 | |
| *% of revenue* | *80,92%* | *78,15%* | *87,12%* | *80,34%* | *80,23%* | *77,89%* | *75,62%* | |
| *y-o-y growth %* | | *-26,60%* | *28,21%* | *6,03%* | *2,86%* | *0,00%* | *0,00%* | |
| **Ancillary revenue** | 6 651 500 | 5 502 400 | 7 992 033 | 7 570 311 | 7 704 400 | 7 817 700 | 7 931 000 | |
| % of revenue | 15,28% | 16,64% | 21,01% | 17,31% | 17,10% | 16,85% | 16,59% | |
| *y-o-y growth %* | | -17,28% | 45,25% | -5,28% | 1,77% | 1,47% | 1,45% | |
| **Other revenue** | 1 654 100 | 1 726 234 | 1 275 836 | 971 651 | 1 144 018 | 2 380 429 | 3 657 332 | |
| % of revenue | 3,80% | 5,22% | 3,35% | 2,22% | 2,54% | 5,13% | 7,65% | |
| *y-o-y growth %* | | 4,36% | -26,09% | -23,84% | 17,74% | 108,08% | 53,64% | |
| **Operational costs** | **25 386 800** | **17 032 005** | **22 420 446** | **24 274 350** | **25 278 256** | **26 442 486** | **27 176 953** | |
| % of revenue | 58,33% | 51,49% | 58,94% | 55,50% | 56,11% | 56,99% | 56,87% | |
| **Sales and distribution** | - | 661 533 | 760 763 | 874 725 | 900 967 | 927 996 | 955 836 | |
| % of revenue | 0,00% | 2,00% | 2,00% | 2,00% | 2,00% | 2,00% | 2,00% | 2,00% |
| **Aviation fuel** | 12 607 100 | 6 310 132 | 10 474 046 | 12 056 965 | 13 515 693 | 14 589 575 | 15 226 732 | |
| % of revenue | 28,97% | 19,08% | 27,54% | 27,57% | 30,00% | 31,44% | 31,86% | |
| **Airport charges** | 4 140 300 | 3 602 061 | 4 034 308 | 4 140 300 | 3 602 061 | 3 602 061 | 3 602 061 | |
| % of revenue | 9,51% | 10,89% | 10,61% | 9,47% | 8,00% | 7,76% | 7,54% | |
| **Handling charges** | 5 260 200 | 3 480 117 | 3 897 731 | 4 014 663 | 4 135 103 | 4 259 156 | 4 386 930 | |
| % of revenue | 12,09% | 10,52% | 10,25% | 9,18% | 9,18% | 9,18% | 9,18% | 10,52% |
| **Technical maintenance** | 3 379 200 | 2 978 163 | 3 253 598 | 3 187 697 | 3 124 433 | 3 063 699 | 3 005 394 | |
| % of revenue | 7,76% | 9,00% | 8,55% | 7,29% | 6,94% | 6,60% | 6,29% | |
| **Other aircraft expenses** | | - | - | - | - | - | - | |
| % of revenue | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | |
| **Lease expense** | - | | | | | | | |
| % of revenue | | | | | | | | |
| **Other operating expenses** | 4 850 000 | 2 778 438 | 3 195 204 | 3 673 845 | 3 673 845 | 3 673 845 | 3 673 845 | |
| *% of revenues* | 11,14% | 8,40% | 8,40% | 8,40% | 8,16% | 7,92% | 7,69% | 8,50% |
| *y-o-y growth %* | | | | | | | | |
| **Payroll and other personnel expenses** | 6 817 500 | 5 917 834 | 6 627 974 | 6 826 813 | 6 868 000 | 6 868 000 | 6 868 000 | |
| % of revenues | 15,66% | 17,89% | 17,42% | 15,61% | 15,25% | 14,80% | 14,37% | 16,22% |
| *y-o-y growth %* | | -13,20% | 12,00% | 3,00% | 0,60% | 0,00% | 0,00% | |
| **Amortization, capitalized software** | - | 38 357 | 36 819 | 36 819 | 36 819 | 36 819 | 36 819 | |
| *% of prior year software intangible* | | | | | | | | |
| *% of revenue* | | 0,12% | 0,10% | 0,08% | 0,08% | 0,08% | 0,08% | |
| *y-o-y growth %* | | | | | | | | |
| **Depreciation** | 1 774 400 | 1 114 912 | 1 399 660 | 1 529 107 | 1 498 136 | 1 468 403 | 1 439 860 | |
| **% of revenue** | 4,08% | 3,37% | 3,68% | 3,50% | 3,33% | 3,16% | 3,01% | |
| *% of prior year net PP&E* | | | | | | | | |
| *y-o-y growth %* | | | | | | | | |
| *Lease depreciation* | 4 683 100 | 4 612 630 | 4 579 259 | 4 578 150 | 4 576 982 | 4 575 754 | 4 574 461 | |
| **Impairment** | - | - | - | - | - | - | - | |
| **Other gains/(losses) - net** | - 845 800 | - | - | - | - | - | - | |
| *% of revenue* | -1,94% | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | 0,00% | |
| *y-o-y growth %* | | | | | | | | |
| **Total operating expenses excl. Lease. Depr. And amort.** | 36 208 500 | **25 728 277** | **32 243 623** | **34 775 009** | **35 820 101** | **36 984 332** | **37 718 799** | |
| **EBITDAR** | 7 313 400 | 7 348 367 | 5 794 517 | 8 961 245 | 9 228 240 | 9 415 460 | 10 072 987 | |
| *EBITDAR-margin* | *17%* | *22%* | *15%* | *20%* | *20%* | *20%* | *21%* | |
| **EBITDA** | 7 313 400 | 7 348 367 | 5 794 517 | 8 961 245 | 9 228 240 | 9 415 460 | 10 072 987 | |
| *EBITDA-margin* | *17%* | *22%* | *15%* | *20%* | *20%* | *20%* | *21%* | |
| **EBIT** | 855 900 | 1 582 468 | - 221 221 | 2 817 169 | 3 116 303 | 3 334 484 | 4 021 847 | |
| *EBIT-margin* | *2%* | *5%* | *-1%* | *6%* | *7%* | *7%* | *8%* | |
| **Operating taxes** | 23% | 22% | 22% | 22% | 22% | 22% | 22% | |
| NOPLAT | 659 043 | 1 234 325 | - 172 552 | 2 197 392 | 2 430 716 | 2 600 898 | 3 137 041 | |

*Appendix 15: Scenario Oil prices, IATA & Own creation*

**Forecast Best case**

| Commodity | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|
| Crude oil $/bbl | 64,0 | 43,1 | 55,1 | 63,7 | 71,6 | 77,6 | 81,3 | 83,5 | 85,8 | 92,5 |
| Crude oil $/metric tonnes | 469,1 | 315,8 | 404,1 | 466,8 | 525,1 | 568,9 | 595,9 | 612,3 | 628,8 | 678,3 |
| Crude oil NOK/metric tonnes | 4315,9 | 2905,4 | 3717,3 | 4294,3 | 4831,1 | 5233,7 | 5482,0 | 5633,6 | 5785,3 | 6240,2 |
| y-o-y growth % | | -32,68% | 27,94% | 15,52% | 12,50% | 8,33% | 4,74% | 2,77% | 2,69% | 7,86% |
| | | | | | | | | | | |
| **Jet-fuel price average 2019 $/bbl** | 81,50 | 54,86 | 70,20 | 81,09 | 91,23 | 98,83 | 103,52 | 106,38 | 109,25 | 117,84 |
| $/metric tonnes | 597,40 | 402,15 | 514,53 | 594,41 | 668,71 | 724,43 | 758,80 | 779,79 | 800,78 | 863,75 |
| **NOK/metric tonnes** | **5496,0** | **3699,8** | **4733,7** | **5468,6** | **6152,1** | **6664,8** | **6981,0** | **7174,1** | **7367,2** | **7946,5** |
| NOK/bbl | 749,80 | 504,75 | 645,80 | 746,05 | 839,31 | 909,25 | 952,38 | 978,73 | 1 005,07 | 1 084,11 |

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|
| Consumption forecast (metric tonnes) | | | | | | | | | | |
| NOK/metric tonnes | 5 496 | 3 700 | 4 734 | 5 469 | 6 152 | 6 665 | 6 981 | 7 174 | 7 367 | 7 946 |
| Aviation fuel expense | | | | | | | | | | |

**Forecast Worst case**

| Commodity | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|
| Crude oil $/bbl | 64,0 | 43,5 | 55,7 | 64,3 | 72,4 | 78,4 | 82,1 | 84,4 | 86,7 | 93,5 |
| Crude oil $/metric tonnes | 469,1 | 319,0 | 408,1 | 471,5 | 530,4 | 574,6 | 601,9 | 618,5 | 635,2 | 685,1 |
| Crude oil NOK/metric tonnes | 4315,9 | 2934,6 | 3754,6 | 4337,5 | 4879,7 | 5286,3 | 5537,1 | 5690,2 | 5843,4 | 6302,9 |
| y-o-y growth % | | -32,01% | 27,94% | 15,52% | 12,50% | 8,33% | 4,74% | 2,77% | 2,69% | 7,86% |
| | | | | | | | | | | |
| **Jet-fuel price average 2019 $/bbl** | 81,50 | 55,42 | 70,90 | 81,91 | 92,15 | 99,82 | 104,56 | 107,45 | 110,34 | 119,02 |
| $/metric tonnes | 597,40 | 406,20 | 519,71 | 600,38 | 675,43 | 731,72 | 766,43 | 787,63 | 808,83 | 872,43 |
| **NOK/metric tonnes** | **5496,0** | **3737,0** | **4781,3** | **5523,5** | **6214,0** | **6731,8** | **7051,1** | **7246,2** | **7441,2** | **8026,4** |
| NOK/bbl | 749,80 | 509,82 | 652,29 | 753,55 | 847,74 | 918,39 | 961,95 | 988,56 | 1 015,17 | 1 095,00 |

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|
| Consumption forecast (metric tonnes) | | | | | | | | | | |
| NOK/metric tonnes | 5 496 | 3 737 | 4 781 | 5 524 | 6 214 | 6 732 | 7 051 | 7 246 | 7 441 | 8 026 |
| Aviation fuel expense | | | | | | | | | | |

*Appendix 16: Reformulated historic income statement, Norwegian´s annual report & Own creation*

| NOK 1000 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Passenger transport | 16 254 622 | 18 505 762 | 21 095 595 | 24 719 086 | 32 560 100 | 35 216 300 |
| Ancillary revenue | 2 727 439 | 3 275 289 | 3 928 978 | 4 822 516 | 6 266 600 | 6 651 500 |
| Other revenue | 557 978 | 710 096 | 1 029 952 | 1 406 661 | 1 438 900 | 1 654 100 |
| **Total operating revenue** | **19 540 039** | **22 491 147** | **26 054 525** | **30 948 263** | **40 265 600** | **43 521 900** |
| Sales and distribution expenses | 469 111 | 612 286 | 758 698 | 946 074 | 878 500 | - |
| Aviation fuel | 6 321 053 | 5 184 475 | 5 052 906 | 7 339 171 | 12 562 200 | 12 607 100 |
| Aircraft leases | 1 260 079 | 1 511 346 | 1 778 981 | 2 610 509 | 2 798 900 | - |
| Airport charges | 2 723 910 | 2 949 313 | 3 303 841 | 3 760 075 | 4 373 000 | 4 140 300 |
| Handling charges | 1 854 844 | 2 336 785 | 2 995 608 | 3 685 213 | 5 200 500 | 5 260 200 |
| Technical maintenance expenses | 1 290 035 | 1 716 547 | 1 864 985 | 2 706 549 | 3 493 700 | 3 379 200 |
| Other aircraft expenses | 855 231 | 826 391 | 1 206 447 | 1 694 830 | 2 102 100 | - |
| Payroll and other personnel expenses | 3 203 564 | 3 430 492 | 3 968 052 | 5 314 143 | 6 660 800 | 6 813 700 |
| Depreciation and Amortization | 748 137 | 1 133 286 | 1 295 826 | 1 405 074 | 1 667 600 | 6 457 500 |
| Impairment | - | - | | 655 904 | - | - |
| Other operating expenses | 1 049 577 | 1 263 185 | 1 519 111 | 1 983 742 | 1 825 900 | 4 849 900 |
| Other losses / (gains) net | 583 751 | 474 150 | -576 553 | -432 200 | 994 100 | -845 800 |
| **Total operating expenses** | **20 359 292** | **21 438 256** | **23 167 902** | **31 669 084** | **42 557 300** | **42 662 100** |
| **EBIT** | **-819 253** | **1 052 891** | **2 886 623** | **-720 821** | **-2 291 700** | **859 800** |
| Interest income | 51 681 | 74 181 | 43 623 | 71 296 | 117 500 | 204 500 |
| Interest expense | -302 653 | -463 348 | -685 990 | -958 615 | -1 159 500 | -1 337 600 |
| Other financial income (expense) | -23 167 | 12 989 | 117 513 | 35 285 | 2 273 900 | 340 300 |
| Share of profit (loss) from associated companies | 57 631 | 103 441 | 212 801 | 291 944 | 128 500 | -13 600 |
| Implied interest expense on operating leases | -585 861 | -701 905 | -1 062 878 | -1 279 171 | -1 555 200 | -1 737 200 |
| Nonoperating pension expense | -5 422 | -3 212 | -3 360 | -2 157 | -3 800 | -3 800 |
| **Profit (loss) before tax** | **-1 627 044** | **75 037** | **1 508 332** | **-2 562 239** | **-2 490 300** | **-1 687 600** |
| Income tax expense (income) | -557 284 | -171 114 | 373 353 | -768 496 | -1 036 000 | -78 500 |
| **Profit (loss) for the year** | **-1 069 760** | **246 151** | **1 134 979** | **-1 793 743** | **-1 454 300** | **-1 609 100** |