Valuation of Norwegian Air Shuttle ASA

MSc Economics and Business Administration

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AUTHOR: Markus Fürst (Student Number: 124651)
SUPERVISOR: Finn Lauritzen
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ABSTRACT

Norwegian

BUY

Industry: Airline
Country: Norway

Closing Price: 37.8 NOK
Target Price: 40.05 NOK

Key Information (2019)

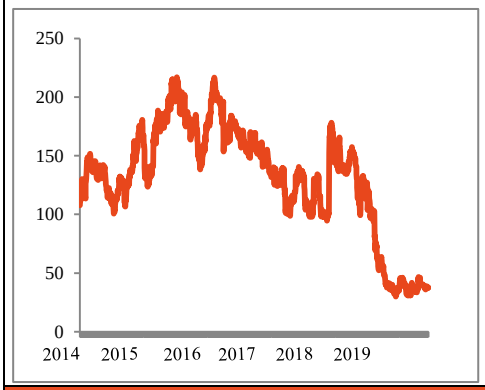
Credit Rating: CCC

Shares Outstanding: 163 558 377

NIBD: 57 077 MNOK
Market Capitalization: 6 182.5 MNOK

Enterprise Value: 63 638 MNOK

Share Price Development (2014-2019)



Market Profile (2019)

Beta: 1.34
WACC: 7.63%

ROIC: -0.01%

ROE: 61.25%

Current ratio: 60.80%

Solvency ratio: 43.48%

EV/Sales: 1.48

EV/EBITDA: 9.99

P/S: 0.14

Analyst

Markus Fürst

This paper features coverage on Norwegian Air Shuttle ASA, indicating a **BUY** recommendation, a result of a target price equal to 40.05 NOK. This entails a 7.1% upside based on the DCF and EVA method, which is supported by using multiple valuations as a guiding tool. The recommendation is mainly based on:

Norwegian is positioning itself for the future

Norwegian has changed their strategic intent, from growth to profitability, therefore positioning the firm to utilize their acquired economics of scale. The firm plans to discontinue unprofitable routes to create a more lucrative route network.

Strategic analysis with mixed findings

VRIN-analysis uncovers no sustainable competitive advantage, and a strong competitive environment on the European market is observed through the Porter's five forces framework. Furthermore, via the PESTEL-analysis it was disclosed that Brexit brings uncertainties, these findings are disadvantageous. Contrarily, growing GDP prospects and favorable demographics indicates an increased future demand in the airline industry which, in addition to lowered oil prices, will be favorable for Norwegian.

Financials are analyzed to be unprofitable, but improving

The financial analysis discovers that Norwegian's current profitability is improving, although negative as ROIC is lower than WACC. This was attributed to high debt-funded investments in order to promote company growth. The firm's current liquidity is also presently in a bad state: a consequence of increased debt funding in addition to high capital commitments, and a declining share price. Short-term it has been recovering the last fiscal year, whereas long-term it is still unfavorable as the company is highly levered. In the forecast the company is found to become lucrative, due to an increasing ROIC. The firm produces heightened unit revenues and improves their cost management over time.

Lastly, the sensitivity analysis highlights that the fair share price estimate is highly sensitive to changes in WACC and terminal growth rate. Furthermore, COVID-19 is set to increase downside risk and could bring financial problems as Norwegian struggles to generate positive cash flows, thus meet its financial obligations in a time where revenues are slashed as demand is non-existing.

Other Key Figures (MNOK)	2017	2018	2019	2020E	2021E	2022E	2023E
NOPAT	-512	-632	-3	43	677	2172	3398

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1. INTRODUCTION

1.1 SOURCE OF MOTIVATION

To valuate and analyze companies with from diverse sectors is an attractive skill, when pursuing a career within the corporate finance field. The curriculum in M.Sc. Finance & Investments at Copenhagen Business School has equipped the writer with knowledge regarding both financial statement analysis and finance in general. Conducting a company valuation is therefore seen as excellent exercise to incorporate both quantitative and qualitative tools, thus displaying proficiency in these areas and applying them in a practical situation. The opportunity to enhance expertize in other areas like corporate strategy was also found intriguing.

Furthermore, it was found detrimental to valuate a company the writer had a relationship with, which also seemed interesting to valuate. Norwegian Air Shuttle ASA (Hereafter Norwegian) is one of the biggest companies within a volatile industry in Scandinavia, presenting net sales equal to 7 697 MNOK (NAS_Q4, 2019). It chased rapid growth (CAGR 2019-2013 – 7%) since its establishment, which brought a high debt burden in addition to cost increases (NAS_AN, 2019-2013). The recent year marks a shift in company goals as the firm has announced its main strategic objective is achieving profitability. This thesis will therefore investigate if the firm has completed, or progressed towards their target of reaching profitability. The main objective of this master thesis will be to estimate the intrinsic value of the low cost airline Norwegian Air Shuttle ASA, and thereby finding a fair share price and examine if the current price reflect its outlook.

Regarding the current outbreak of COVID-19 and its ramifications, it greatly impacted the business of Norwegian. Thus, it was found essential to devote a chapter explaining its repercussions, from a financial point of view, in relation to how it would affect the share price. Norwegian's operations is an essential service with its contribution to the corporate world, by connecting global divisions, but it has been put on hold until further notice as a consequence of the epidemic.

1.2 PROBLEM STATEMENT & SUB-QUESTIONS

This thesis is set to investigate the fair value of one Norwegian share per 31.12.2019, through multiple valuation techniques. To present an accurate valuation the analyst is set to assess the company and its surroundings, in addition to apply models and frameworks created with the intention of tackling financial data. The findings will be utilized to present a recommendation regarding whether or not a potential investor should purchase Norwegian shares.

What is the fair value of one Norwegian Air Shuttle ASA share as of the 31.12.2019, and does the current share price/value of the firm reflect the outlook of the company?

Figure 1. Share price per 31.12.2019. Own creation based on Yahoo Finance (n.d.).

The figure above visualizes the paper's problem statement, as it displays that if the estimated share price is higher than 37.8 NOK it implies a **BUY** recommendation as the stock is undervalued. Simultaneously, if the paper were to discover the opposite it would entail a **SELL** recommendation (overvalued). Below, several sub-problems have been created with the aim to aid and reinforce the research question.

Company Overview:

→ What is Norwegian's newly adapted strategic aim? Additionally, what is its business model?
→ What are the characteristics of Norwegian?

Industry Overview:

→ Which companies form Norwegian's peer group?

Strategic analysis:

→ Which internal and external factors impact the operations of Norwegian?
→ How intensive is the firm's competitive environment?
→ What are Norwegian's key operational drivers?
→ Is the company in possession of a sustainable competitive advantage?

Financial analysis:

→ How does Norwegian's financial performance measure against its peers in the research period?

Forecast:

→ How many years will the firm's explicit forecasting period last?
→ What is Norwegian's terminal growth rate?
→ How will key investment, finance, growth and cost drivers develop in the explicit forecasting period, additionally; what is their impact on future ROIC and FCFF?

Cost of Capital:

→ Which cost of capital is utilized for Norwegian's investments?

Valuation:

→ What is the intrinsic value of one Norwegian stock per 31.12.2019 utilizing present value methods, in addition to relative valuation approaches as guidance?
→ How will a slight change important underlying factors impact the estimated share price of the company?

COVID-19:

→ What are the implications of COVID-19 on Norwegian and the airline industry in general?

→ What are potential scenarios for Norwegian's future cash flow development taking COVID-19 into account?

→ How will the pandemic affect the share price?

1.3 METHODOLOGY

The aim of this section is to provide the overall scope of the thesis. Strategic, in addition to financial analysis will be conducted to provide a well-reasoned answer to the paper's problem statement. The valuation is conducted from the perspective of an independent impartial analyst, with no inside information. Therefore Norwegian and its peer group's annual reports (cited: NAS_AN) together with the Q4 report (cited: NAS_Q4) have been fundamental in gathering information for the thesis. Only public information has been utilized to provide the intrinsic value of one Norwegian Air Shuttle ASA stock and the paper is based, primarily, around the literary framework provided by Petersen & Plenborg (2012). The sources used in this paper are therefore regarded as secondary literature, and although Norwegian has been notably cited, the writer has tried to process the information with objective eyes. Lastly, MNOK is the equivalent of writing million NOK.

1.3.1 SELECTED MODELS & THEORIES

The 3rd chapter conducts analysis regarding Norwegian's strategic environment, split into both an internal and external section, where the important findings are summarized in a SWOT analysis. Thereafter an analysis regarding the company's financial state will be conducted (section 4) followed by a forecasting chapter (5). In chapter 6 the appropriate cost of capital is found and in section 7 the valuation is executed based on different models. The 8th chapter will revolve around Norwegians future regarding the corona crisis, and a scenario analysis is performed.

As for models, an external analysis is vital to grasp how surroundings will impact Norwegian's future performance, here both a PESTEL analysis (see 3.1) and the P5F framework (section 3.2) is utilized. The former analyzes the macro environment through political, economic, socio-cultural, technological as well as environmental determinants, whereas the latter measures how fierce the competitive environment is for the company in question (Johnson et al., 2011). The Porters' five forces model does this through assessing the threat of new entrants, rivalry among competitors and bargaining power of buyers, substitutes and suppliers (microenvironment), indicating the industry's attractiveness (Porter, 2008). Thereafter, the internal conditions are thoroughly investigated. A VRIN-analysis is conducted to decide the capabilities and resources Norwegian can exploit to attain a sustainable competitive advantage, which can give them strategic benefits (Barney, 1991). In addition, an analysis of the airline industry's key drivers will be conducted. Here, components like ASK, RPK are inspected, measuring important factors, e.g. total capacity which indicate industry performance. Furthermore, Norwegian's performance was assessed against relevant rivals. To

finalize the chapter, the results from previous analyses were taken and combined in a SWOT-framework, which operates as a summarization of the strategic analysis, presenting findings as strengths, weaknesses, opportunities or threats to Norwegian's business (Johnson et al., 2011).

The next section conducts a financial analysis of Norwegian's historical performance following the Financial Statement Analysis' (Petersen & Plenborg, 2012) format, thus explaining the company's profitability and liquidity in relation to its peer group. These findings and the ones from section 3 is utilized in chapter 5, which regards Norwegian's forecast. It establishes a realistic outlook on Norwegian's financial performance. The financial analysis guides on historical performance, whereas the strategic frameworks inform about future realistic potential. Both are needed to provide a reliable and valid forecast. The section creates pro forma financial statements to prepare groundwork for the DCF and EVA valuation approach.

In chapter 6 Norwegian's cost of capital is uncovered, utilizing the WACC formula in addition to the capital asset pricing model. Thereafter, chapter 7 applies former findings which are utilized to estimate a fair share price for Norwegian. The section is based on several valuation approaches, namely the Economic Value-Added model, the Discounted Cash Flow model in addition to equity-based and enterprise-based multiples (relative valuation). Here the model's assumptions are explained, in addition to relevant theory. As the intrinsic value is found using subjective underlying assumption a sensitivity analysis is attached to provide understanding of how slight changes in key factors estimate different target prices. This analysis is also practical to predict certain up- or downside movements in company value, if one variable should change.

Lastly, in section 8 implications attributed to COVID-19 will be assessed on a company-specific and industry-specific level. The company-specific analysis will involve a scenario analysis, which reveals likely outcomes taking the crisis and its effects into account.

1.3.2 STRUCTURE

This thesis is separated into unique chapters where each of them assesses a critical part that is beneficial to grasp in order to understand the next chapter. The goal of the structure is to provide the reader with an understandable and logical paper from the research question to its conclusion, and the structure is visualized below in figure 2.

Figure 2. Thesis structure. Own creation.

1.3.3 DELIMITATIONS & ASSUMPTIONS

To produce a thoroughly analyzed and logical paper, certain assumptions had to be taken into consideration to answer the research question properly. Moreover, certain delimitations were set concerning methods and sources utilized to attack the research question, thus finding Norwegian's fair stock price through the eyes of an analyst. These topic delimitations are listed below:

- → The information utilized in the master thesis is information only available up until the 31.12.2019; hence events and information occurring later, with regards to the firm will have no impact on the thesis. The exception is chapter 8, regarding COVID-19, which will be based on information up until the 30.04.2020 as per agreement with the supervisor.
- → Historical performance is based on seven years of financial statements, in accordance with Petersen and Plenborg's (2012) recommendations.
- → The share price is found through an external point of view. Thus, it is based entirely on publicly available information and secondary literature. Direct contact with the company has not been established.
- → The restricted number of pages available leads to the necessity to leave out some information. Nonetheless, the information bestowed in this thesis is of highest relevance from a financial valuation perspective.
- → The strategical analysis is limited to only containing the firm's primary business activities, meaning air transport of passengers.
- → A thorough explanation of theories and models will not be prioritized. Hence, it is assumed the reader has general knowledge regarding relevant models and theories applied in this paper.
- → This master thesis is constructed for potential external investors. Hence, the reader is required to have a basic level of understanding for finance, strategy and business.

If additional assumptions or demarcations have been taken in regards to individual approaches or frameworks, they are specified in its specific segment.

2. COMPANY & INDUSTRY PRESENTATION

This chapter will focus on introducing the company along with its history. The section is split in specific parts, particularly "The Firm", "Strategy & Vision" and "Business Model" to identify a few. Thereafter the industry Norwegian operates in will be clearly presented, along with other companies operating in the airline sector, i.e. its peer group.

2.1 THE FIRM

2.1.1 COMPANY HISTORY

Norwegian Air Shuttle ASA is a publicly traded Airline firm headquartered outside of Oslo (Norwegian, 2019a). The company was founded in 1993 with the prime objective to operate as a continuation for services provided by Busy Bee of Norway (Norwegian, 2019j).

Thus, the firm assisted Braathens SAFE in meeting demand for air transport on the Norwegian west coast, where they offered routes and co-operated until 2002, attributed to a merger between SAS and Braathens SAFE. The consolidation of the companies meant Norwegian lost these regional operations, which led the firm to challenge the monopoly SAS now acquired on the Norwegian domestic air transport market. In other words, the enterprise established flights for the four most demanded routes in Norway. Consequently, Norwegian acquired market share of between 10–15 percent on these individual routes. In 2003 the company generated revenues of 177 MNOK and operated 13 domestic routes on the Norwegian market (NAS_AN, 2003). Simultaneously, the low cost carrier got listed on Oslo Stock Exchange with a rising stock price. Norwegian's performance led them to expand their operations further to involve international air fares to demanded European destinations in a codeshare agreement with Sterling and FlyNordic (Norwegian, 2019j).

The next important event, regarding business expansion, occurred throughout 2006-2008. Norwegian acquired new international hubs located Stockholm, Warszawa and Copenhagen. This led the firm to purchase 42 new Boeing aircrafts to utilize and exploit their new areas of operations, and satisfy demand. At the time, this was recognized as the largest purchase of planes in Scandinavian history. In the recent years Norwegian has become an intercontinental low cost carrier providing routes from Oslo to e.g. Bangkok and New York (Norwegian, 2019j). With that Norwegian acquired several new hubs and airplanes of the model, Boeing 787, called "the Dreamliner" in what was recognized globally as one of the largest solo order of planes in airline history (Koranyi, & Stolen, 2012).

2.1.2 RECENT PERFORMANCE

Per 31.12.2019, Norwegian generated operating revenues of 43 522 MNOK, and presented a net profit of -1 609 MNOK. This amounted to a profit margin of -0.01%, an improvement from the former year, in which the company also operated unprofitable. However, their investments and expansion have in turn led them to become the one of the largest low cost airline corporations with its approximately 170 aircrafts operating over 500 routes (Norwegian, 2019a). Some of the newest changes affecting Norwegian included a change in strategic intent resulting in a CEO step-down and the company having to ground its Boeing 737 MAX fleet due to regulations from aviation authorities, bringing additional costs (Solsvik, 2019). Below a graph illustrating the company's latest share price development (31.12.2013-31.12.2019), thus showing how it fluctuated before being worth 37.8 NOK, is attached.

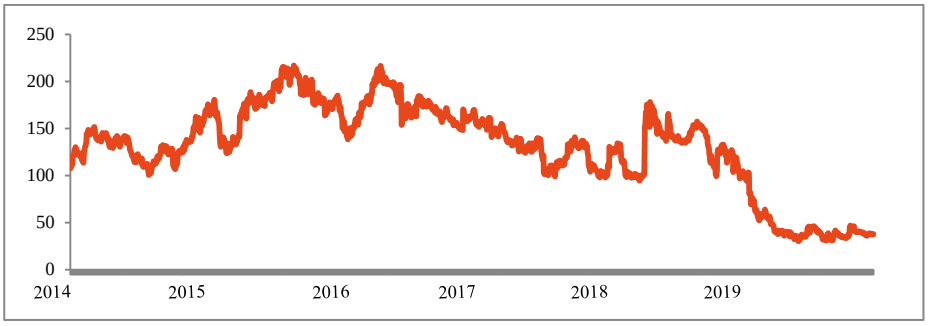

Figure 3. Historical share price development. Own creation based on Yahoo Finance.

2.1.3 CORPORATE STRUCTURE

Norwegian's corporate structure is portrayed in figure 4. It is the parent company of *The Norwegian Group* and it owns, directly or indirectly, several subsidiary companies located in all of the Scandinavian countries in addition to the UK, Spain, Ireland, Finland and Singapore. The subsidiaries are divided into the enterprise's four main business areas, namely Assets/Financing, Aircraft Operations, People & Services and Other Business Areas. The former area organizes the business through acquiring essential operating licenses, whereas People & Services organize the crew and takes care of administrative functions. The Assets Group is responsible for acquiring flight leasing contracts and conducting purchasing agreements. The latter segment, Other Business Areas, includes their cargo service, a holiday pack unit, their loyalty program and Norwegian Brand Ltd., which is responsible for the groups branding and marketing activities (Norwegian, 2019d).

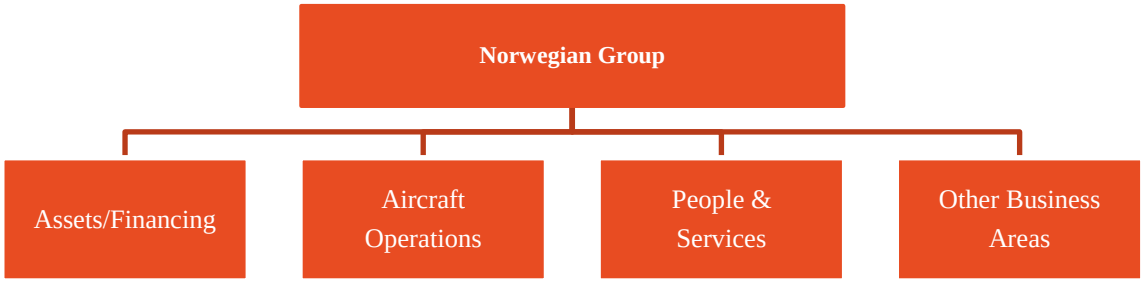

Figure 4. Business areas. Own creation based on Annual Report 2018.

2.1.4 STRATEGY & VISION

Norwegian's strategy mainly focuses on achieving profitability, thus providing the foundation for their business model. In the last few years the company chased rapid growth, in addition to acquiring heightened financial obligations. According to the firm itself Norwegian has now acquired the scale it needs, therefore the company established a new strategic focus; it shifted towards a more profit oriented approach as the firm

wanted to exploit its investments (Norwegian, 2019e). The enterprise divested in 140 aircrafts as of 2018, supporting this shift in strategic intent (NAS_AN, 2018). The rationale behind this was the company's intention to avoid further financial and operational challenges which the company struggled with in the recent year (Powley, 2019).

The departure of CEO and chairman, with a temporary instatement of CFO as CEO to lead their financial restructuring began, indicating the firm's move from company growth to profitability (Norwegian 2019c; NAS_AN, 2018). The instatement of Jacob Schram as CEO, and Geir Karlsen returning to his role as CFO could be interpreted as a sign of the company's restructuring success, in the analyst's opinion. Furthermore, it modified the route network by cutting long haul routes from Stockholm and Copenhagen, while closing down 50 short haul routes (NAS_Q4, 2019). Simultaneously, the firm sold its Argentinean subsidiary to JetSMART, a sensible move considering Argentina's financial challenges and the weakening of the local currency (Norwegian, 2019g). Therefore, it seems the company is managing the shift successfully in the writer's opinion. The enterprise's goal is to appeal to potential purchasers in a sustainable manner and create market stimuli through establishing a great travel experience and competitively price its air fares with the help of high operational efficiency, innovation and low operating costs. The company aims to attract premium customers to broaden the potential market, based on one of their key strategic principles, the "freedom of choice" program. Here the firm offers a competitively priced air fare to price-sensitive purchasers, with the option to upgrade quality for an additional charge. Lastly, the company's vision is to (Norwegian, 2019e):

"*Be the leading long-haul low-cost airline in Europe operating as the engine of global low-cost growth and dominate the Nordic short-haul market*"

2.1.5 BUSINESS MODEL

Norwegian operates as a low-cost carrier (LCC), with certain traits of a full-service carrier (FSC). An LCC aims to carry out a price leadership strategy, with a focus on reducing costs (Reichmuth et al, 2008). Norwegian states the foundation of its business model is to provide competitively priced airfares, based on high volume (Norwegian, 2019e). The low-cost carriers mainly focus on price sensitive customers, therefore offering cheaper air fares than an FSC (O'Connell & Williams, 2005). Their LCC business model is derived from their automated systems e.g. the online check-in option, extra amenity fees and different ticket options as a low-cost carrier aims to lower prices. Moreover, it provides extra services for an additional charge to absorb demand from the FSC's. Their frequent flyer reward program and seat optionality are traits mainly adopted by full-service carriers. It is therefore concluded with that Norwegian utilizes an LCC business model, with certain FSC features.

The company offers departures from primary and secondary airports, and on a lot of routes, also connected flights (Dziedzic & Warnock-Smith, 2016). Regarding its network model Norwegian conducts its flights in a Point-to-Point network model, which emphasizes direct flights, as opposed to a Hub-to-Spoke model. The configuration entails flying customers from smaller airports to a major airport, or a hub. Thereafter the company would execute flights to the smaller airports again. The air fleet the company utilizes is uniform and includes mainly 3 models, lowering their maintenance costs due to benefits of scale. This in turn entails a milder impact on Norwegian's expenditures. The enterprise is mostly utilizing Boeing 737-800, 737 MAX and 787 Dreamliners, where 737 MAX is currently grounded due to technical defects (NAS_Q4, 2019). The firm concentrates on keeping their fleet young to keep maintenance and fuel costs down, in addition to conducting both international and domestic flights to capture a higher global market share (Norwegian, 2019e). Logically, the company is conducting both long haul routes and short distance flights with customer reach in mind. When referring to Norwegian's business model in future segments, the term LLC or low-cost carrier will be utilized.

2.2 INDUSTRY OVERVIEW

The airline industry generated total revenues of 838 billion USD in 2019, illustrating its importance for the global society (Mazareanu, 2019e). It is situated in the lower thresholds of profitable industries worldwide, and characterized by many company defaults (Damodaran, 2019c). However, throughout the last years, industry turnover and return on invested capital (ROIC) increased, indicating a positive development (Mazareanu, 2019c). During the period 2014-2018 industry ROIC heightened, attributed to a new economic cycle, thus implying the industry's dependence on global economic conditions.

Moreover, European and American airlines alike are described as *Value Creators*, as they continue to provide economic value for their investors. However, this only applies to a selected few airlines on a consistent basis (IATA, 2019b). This thesis will be investigating if Norwegian is set to become one of those companies, but first the competitive situation will be explained.

2.3 COMPETITIVE ENVIRONMENT

This section provides an introduction of the peer group therefore creating a benchmark to compare Norwegian's performance against concerning both the strategical and financial analysis. Such a reference point is essential to be able to analyze the company thoroughly. As there is no company competing on the exact same markets with an identical business model, similar companies have been chosen based on different criteria.

The peer group consists of SAS, Ryanair and easyJet, attributed to competing in the same markets, sharing similar company size or utilizing comparable business models, therefore providing a representative average for the industry segment Norwegian operates in.

2.3.1 SCANDINAVIAN AIRLINES AB

Scandinavian Airlines AB (hereafter SAS) is a Scandinavian airline company operating domestically in Norway, Sweden and Denmark. The firm provides long-haul international flights from its Scandinavian airport hubs to the rest of Europe, and other destinations in North America and Asia. It is a result of a former merger between three Scandinavian national airlines, where each country acted as stakeholders in the firm. In the past years SAS suffered from financial problems, therefore almost having to file for bankruptcy. Consequently, it is currently undergoing a restructuring aimed to increase profitability, while simultaneously cut back costs (Milne & Parker, 2012). SAS generated a turnover of 46 736 MSEK, while their share price dropped consistently the last years, corresponding to a value of 15.27 SEK per 30.12.2019 (SAS_AN, 2019; Yahoo finance, 2019). SAS is the only FSC in the peer group; it is assessed as comparable as it operates in similar markets. In addition, the company conducts cross continent long-haul routes like Norwegian (SAS_AN, 2019).

2.3.2 RYANAIR

An Irish LCC established in 1985, which the last 7 years have operated with a ROIC (pre-tax) over 10% annually (see 4.4.). Ryanair commenced with its low-cost business model in year 1990, establishing itself as Europe's first LCC. The firm reports that it focuses on providing the cheapest fares on any market in which they operate, conducting flights in a high frequency manner. In the fiscal year 2019 the company generated revenues equaling 7 697 MEUR, by operating 350 Boeing 737 800's to over 200 destinations on the European peninsula. This thereby classifies them as the largest LCC in Europe, according to the firm itself (Ryanair, 2019b). Ryanair is not operating on the Norwegian domestic market, although it is flying to Norway from certain European destinations. As a result the firm only provides competition in international market. In contrast to Norwegian the airline is currently only flying short-haul, as the company does not operate any long-haul airplanes (Ryanair_AN, 2019).

2.3.3 EASYJET

EasyJet, a United Kingdom-based LCC, founded by Sir Stelios Haji-Loannou, which performs short-haul operations in Europe. The firm generated net profits of 354 M£ in fiscal year 2019. Currently the airline operates 331 aircrafts in 34 countries (Thomson One, 2019). The company operates, in common with Ryanair, no domestic flights in Norway, but conduct flights from Oslo. EasyJet presents a young air fleet, with a low-cost strategy through a flexible and efficient business model based on cost advantages and

economics of scale; it therefore shows similarities in its business model to Norwegian. The company only provides short-haul routes (eastJet_AN, 2019).

3. STRATEGIC ANALYSIS

The aim of this chapter is to provide a thorough assessment of the enterprise's business environment, secondly firm and market characteristics will be explained. To achieve this, both an external and internal environmental analysis will be conducted.

3.1 PESTEL-ANALYSIS

In this sub-section the macro environment will be analyzed through political, economic, socio-cultural, technological, environmental and legal factors, also known as a PESTEL analysis (Johnson et al., 2011). Seeing as the company executes most of its operations in Europe, the analysis will focus on the most recent and central PESTEL-factors in Europe (NAS_AN, 2018). The model is conducted with a valuation perspective, thus implicating an assessment on the factor's effects on Norwegian's future financial performance.

3.1.1 POLITICAL & LEGAL FACTORS

Firstly, political and legal factors will be inspected. The reasoning behind merging these two aspects of the analysis is their strong interconnection and overlap. It is decided to focus on the political and juridical factors that, in the last few years, had the greatest influence as these will affect Norwegian's performance the greatest and thus be most relevant.

As stated by IATA (2019a), the airline industry is certainly impacted by politics. There is a substantial amount of international laws and agreements that must be considered. One of the critical reasons for this is the rigid **security requirements** in this sector. Especially after 9/11 new costly security measures were implemented, also updated procedures have been instated that should increase Norwegian's costs. A few years ago, the EU-commission added new security measures in all of the EFTA nations. These rules and regulations are often updated, and its each airlines responsibility to stay updated on new juridical implementations. EU's laws are some of the most comprehensive regulations globally, and may therefore affect Norwegian's profitability as a cause (European Commission, 2017).

Recently an international **grounding of Boeing 737 MAX** aircrafts was issued as a result of two plane crashes, killing 346 people (Helmore, 2019). The grounding was issued 13.03.2019 and is still intact. Consequently, Norwegian prolonged leasing contracts of older Boeing models, implying higher fuel and leasing costs. On top of this, it led the LCC, and other international companies like American Airlines to cancel several of their long-haul routes, impacting profitability (BBC, 2019; Isidore, 2019). Boeing has

extended the timeline for its correction several times and new problems have been identified, indicating lowered validity regarding its estimated completion (Gelles, 2019). In total, Norwegian which currently operates 18 models of the aircraft has stated it may raise costs up to 58 million USD (Frost & Hepher, 2019). However, in Norwegian's Q4 report (2019q) it was stated that the firm may soon not be obliged to purchase the remaining 737 MAX aircrafts and Boeing still owes them compensation, attributed to their delays.

Moreover, **The European Common Aviation Area** (ECAA) is an agreement offering a common European airspace (Mobility and Transport, 2019). This entails that airline companies from participating countries may utilize said airspace belonging to other associated nations without additional expenses (Bombay & Gergely, 2008). Such an arrangement may impact airlines profitability negatively, as it increases the access and supply for companies headquartered outside local borders in previously non-participating markets. Especially airline firms conducting solely domestic routes will experience increased competition. For Norwegian this does not provide a disadvantage as the company operates with an international business model, thus rather giving it an advantage. Such an agreement may therefore benefit Norwegian's profitability. The reasoning behind this is the industry's strict regulations, leading to extra costs and hardships for companies needing a license to operate in each individual country with a different legislation. The agreement offers easy access to participating nations' airspace, due to common laws, and this again implies that airlines avoid further cost-demanding processes. The European Commission (2019a) states that the shared marked will deliver substantial economic benefits and significant growth to European air transport industry in the future, which includes Norwegian. It confirmed that the European airline industry experienced a tremendous growth in profitability leading the market to become 2017's second most financially-rewarding in the industry, worldwide (European Commission, 2017).

However, recent changes in political relations may threaten this beneficial position. Great Britain (GB) has voted to leave the EU, which brings great uncertainty to the airline industry (Bouoiyour & Selmi, 2018). There is going to be a predicament regarding regulations of the airline industry. GB must decide between their political freedom and access to the ECAA. KPMG (2016) specifies that UK is the EU's biggest airline market by passenger numbers, and IATA (2018) reports that **Brexit** may greatly impact air travel to and from GB. Taking both statements into account, it could lower Norwegian's net profit accordingly as it operates in both the European and British market, in addition to controlling an English subsidiary. The association concludes with that market access could be reduced for flights to and from GB, the airfares could be affected by changes in currency rates, and regulatory changes may also impact the airline sector negatively (IATA, 2018). The firm's profitability could hence be negatively affected from the ramifications attributed to Brexit. However, Norwegian states it has contingencies for all plausible scenarios, which could imply its effects will be softer (NAS_Q4, 2019).

Altogether, the European airline industry is heavily regulated and affected by political changes, which affects its costs. On the other side a common European market is beneficial as it provides a uniform law set and simplifies the process of managing a European airline firm. This can affect the return both positively and negatively, and it is uncertain which factor that yields the greatest impact.

3.1.2 ECONOMIC FACTORS

The strongest factor for demand in the airline sector is **economic growth** (European Commission, 2017). Figure 5 shows the relationship between gross domestic product (GDP) and air traffic growth, represented by available seat kilometers (ASK). According to IMF (2019) continued GDP growth is predicted in Europe, which will be positive for Norwegian given that it conducts several of its operations in this region. However, its effect as an economical driver in the airline industry should not be overestimated, especially during recessions. Airfares are often looked upon as essential, specifically in business, and vacations are often prioritized by its customers. In the last 30 years this industry has experienced recessions and oil price peaks, but the air travel has continued to grow about 5 to 6% per year on average (Chèze et al., 2011).

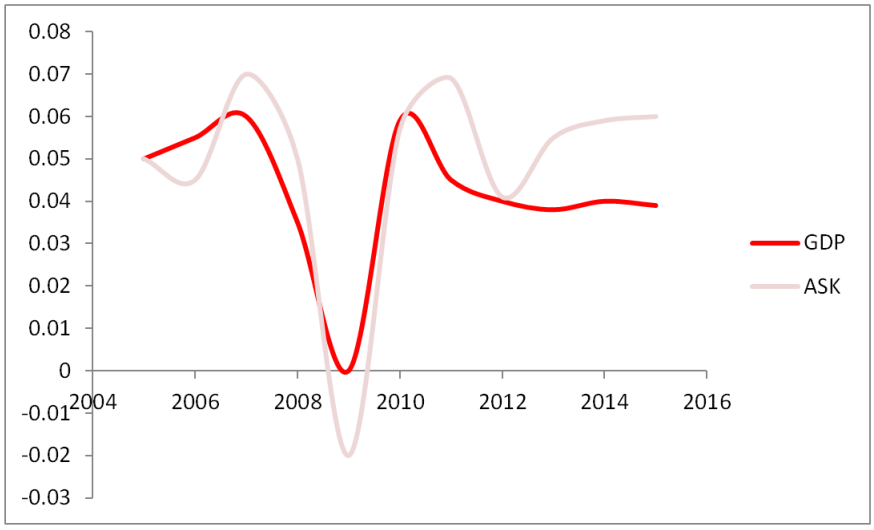

Figure 5. The relationship between ASK and GDP.Own creation based on European Commission (2017).

Oil prices greatly affect airlines net profit, as aviation fuel is one of the largest components of total costs and made up around 30 % of Norwegian's operational expenses in 2019 (NAS_Q4, 2019). There is a direct link between the oil price and aviation fuel, which is illustrated in figure 6. Consequently, lower jet fuel prices leads to a greater profitability. The price of oil is normally hard to predict, indicating a volatile expense, which is illustrated in figure 6. This risk can be avoided by utilizing fuel hedges. The crude oil price has declined significantly since the financial crisis in 2008; however, the price increased again during the 2 next years to around 100 USD per barrel until 2014. During the summer in 2014 it dropped to about 45 USD per barrel. The low price led to cost reductions within the industry, which led to airlines dropping fare prices, thus increasing demand. Since 2017 the price started to increase again and in December 2019 it was 66 USD

pr. Barrel (Index Mundi, 2019). The price is predicted to decrease attributed to rising international oil reserves (EIA, 2019). This price will lead to lower expenditures for the airline industry.

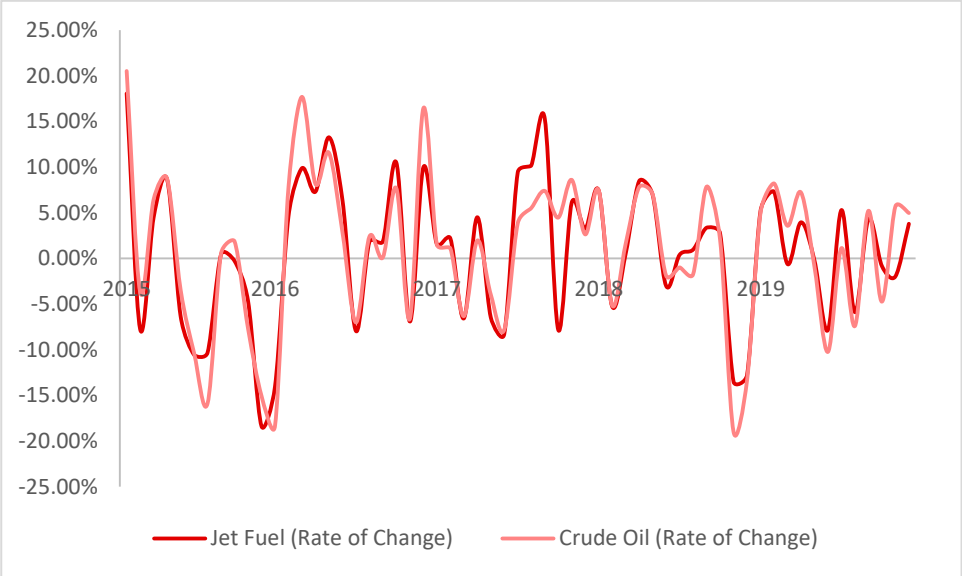

Figure 6. Rate of change between Jet Fuel & Crude Oil Prices. Own creation based on Index Mundi (2019).

Changes in the **interest rates** influence the airline industry similarly to changes in oil prices. A small fluctuation may cause a large increase in expenses. Since the financial crisis in 2008 the European interest rates has been kept low compared to previous years (European Central Bank, 2019a). On one side, a low interest rate is often a consequence of reduced economic growth, which impacts the airline sector negatively. However, on the other side, low interest rates increase the demand over time, and hence stimulate economic growth. This is supported by economic theory, as it is suggested that modest interest rates will affect consumers economic spending positively (Blanchard, 2008). One could therefore reason for that shifts in interest rates directly affect the airline industry's operational performance. Furthermore, Norwegian has financed their aircraft purchases with sizeable loans, which imply that the interest levels have a notable impact on the bottom-line industry growth. The low interest rates have contributed with cheap access to external capital, which resulted in significant growth for several airline companies, including Norwegian, due to their many aircraft investments. However, after a long period of low interest rates it is expected that the level will increase slowly over time (European Central Bank, 2019b). Hence, a period for cheaper airplane purchases may be about to end.

Currency rates also impact an airlines net profit as several companies, Norwegian included, operates with an international business model. A weaker Euro or British pound will increase the costs for Europeans to fly to other continents, which results in a lower demand for long-haul flights for this customer segment. However, on the other side, it also makes it cheaper for passengers from other continents to travel to Europe.

The value of a British pound increased, whereas the Euro fell against the US dollar (USD) from 2016 until 2018. However, in 2019 both currencies depreciated against the USD again (Bloomberg, 2019a).

3.1.3 SOCIO-CULTURAL FACTORS

There are a large number of socio-cultural factors that may impact consumers desire to travel by plane, the factors that were analyzed as most impactful will be elaborated on.

In Western countries there has been a rising trend the recent years regarding **climate change awareness.** As a response, numerous individuals aim to reduce their carbon footprint. Greta Thunberg and the Swedish concept of flight-shame has increased awareness about the impact air travel has on the environment (Conboye & Hook, 2019). Air fares demands an immense amount of energy and as a result, environmentally conscious individuals should try reducing their flight travel to a bare minimum (Edwards et al., 2016). However, research indicates that people tend to prioritize air travel, and reduce their contribution to pollution in other ways. Davidson et al. (2014) found that individuals prioritize air travel, and would rather reduce their carbon footprint on other areas. As a result it seems that the climate change awareness does not affect airlines yet. This is also in line with the tremendous growth the industry has experienced the last few years (European Commission, 2017).

Unforeseen circumstances like **terrorism** or **virus pandemics** may impact the demand and mindset towards flying amongst the population. Several European airline enterprises reported declining demand and losses after the terror attacks in West-Europe in 2015/2016 (easyJet_AN, 2016: Ryanair_AN, 2016). The reasoning behind this is that airplanes have been frequent targets of terror. David Oxley (2017) estimated a decline in airfare traffic of 1.6 percent the following year, and a reduction in European airline net sales of 2.5 billion USD. The demand does however quickly normalize back to the regular level; it is therefore looked upon as a temporary effect.

Moreover, SARS, a virus epidemic, affected the APAC region in 2003, which impacted the market's total airline traffic severely. The crisis decreased annual RPK by 8 percent compared to normal levels, implying detrimental effects on airline earnings (Cederholm, 2014). One can therefore draw the conclusion that virus outbreaks potentially will lower demand for airlines travel as well. However, historical data indicates that industry growth will only be affected for a brief interval (European Commission, 2017). The target price found in chapter 7.5 assumes no unforeseen circumstances will occur as they are hard to predict, forecast and have a low probability of occurring.

Lastly, prognosis has shown that the Asian working population is estimated to grow steeply in Asian nations. A surge in percentage of middle class for these countries is considered to increase the number of air traffic passengers (European Commission, 2017). Therefore an increase in long-haul flights for European airline

firms is to be estimated by this customer segment, due to **change in demographics**. As Norwegian operates with long haul routes to and from Asia, it implies a growing market, which again could lead to increased profitability.

3.1.4 TECHNOLOGICAL FACTORS

The airline sector has experienced huge **technological improvements** in the last years regarding engines, weight, aerodynamics and more. One of the area's leading to the greatest cost reduction is the development of fuel-efficient aircrafts (Norwegian, 2019h). It is stated that newer planes utilize 20-30% less aviation fuel than veteran aircrafts (ATAG, n.d). Boeing 787 and Airbus 380 are highlighted as prominent utilizers of the new technology. Such an effect will have a major impact on airline enterprises costs as we discover that Norwegian's fuel amounted to roughly 30 percent of their costs in section 4.3.1.2.

3.1.5 ENVIRONMENTAL FACTORS

Airlines pollute due to flight engines producing noise, heat and gases contributing to climate change and global warming (ICAO, 2018). The industry's pollution amount to about 2% of the global CO2 emissions worldwide and is responsible for the creation of a substantial amount of other greenhouse gases (Cui, 2017). This has led to implementations of several **regulations**, and investments in modernization of air fleets. It is therefore each aircraft manufacturer's aim to constantly reduce their vehicles' emission and improve innovation in every new generation of introduced flight vehicle (ACARE, 2002). These measures will over time bring about a reduction in each company's carbon footprint, however since the several firms utilize older aircraft models, it may take some time (Kilpi, 2007).

United Nations International Civil Aviation Organization (ICAO) finalized the **global market-based measure** (GMBM) in 2016. The central point of the agreement is to reverse the escalating aviation emission of CO2 pollution. It forces participating airlines to emit the same percent or less pollution, as the average of the airline industry in the basis year 2020. There are also other measures in the arrangement that aim to reduce e.g. nitric oxide. As a consequence of fulfilling these requirements airline enterprises may potentially increase their costs (ICAO, 2019). It will be the airline enterprises that quickest renew their aircraft fleet that will be least affected by this measure, but contrarily it involves costly investments.

3.2 PORTER'S FIVE FORCES (P5F)

P5F is as a framework in which understanding for the competitive forces that shape the competition within an industry is provided, as opposed to considering the macroeconomic factors as in the former segment (Porter, 2008). It depends upon the five factors: **(1)** threat of potential entrants, **(2)** bargaining power of buyers, **(3)** bargaining power of suppliers, **(4)** threat of substitute goods and **(5)** rivalry among existing competitors.

3.2.1 THREAT OF POTENTIAL ENTRANTS

Established companies may potentially operate with **economics of scale** (EoS), as Norwegian does when it needs service on a large amount of aircrafts. Simultaneously, an established firm will often experience **cost advantages** attributable to its expertise and knowledge gained throughout their years of operations, as opposed to newer firms. This implicates that it could be costly for new entrants to achieve the same results, which acts as an entrance barrier (Porter, 2008). The gained experience will also provide the mature enterprises with established routes which may be time consuming and costly for the potential entrants to organize. However, the most important factor offsetting new entrants in the airline industry is the **high capital requirements** needed to enter. An operating permit is needed to run commercial aircrafts on their routes (CAA, 2019). This permit demands personnel, sufficient financial resources and comprehensive security measures to ensure safety from e.g. terrorism. Normally a country's civil aviation authority ensures this, which entails a company can operate in the whole ECAA. This also acts as a **juridical barrier**. Moreover, capital is also needed to purchase aircrafts and parts, which new entrants may find potentially demanding to obtain. This is attributing to the statement that new potential entrants have high entry barriers.

In contrast, **easy access to distribution channels** could mean a reduction in the industry's entry barriers, as this is the case in the European flight sector (Pearce, 2013). There is a low level of **vertical integration** or loyalty, thus arguing for lower entrance barriers. It could also be discussed if Norwegian and other incumbents have leverage over the potential entrants by starting pricing wars to keep market share, a **game theory** concept (Brandenburger & Nalebuff, 1995). The airline industry is already one of the least profitable in the world, therefore lowering profits even further would cause hardships and potential financial distress; it argues lower entrance barriers (Pearce, 2013).

The last important aspect affecting the entrance barriers of new companies in this industry is **point of differentiation**. High differentiation acts as an entrance barrier as it increases customer loyalty, heightening the difficulties of stealing existing competitors' market share. On one side there are extensive loyalty programs potentially hindering new firms from taking on incumbents' customers. However, the other side portrays that the airline sector is a price sensitive industry, leading to purchasers favoring the cheaper option (Bharucha, 2016). In the analyst's opinion these loyalty programs only gradually reduce entry barriers, as travel without having a loyalty program is still a common practice to the writer's knowledge.

It is concluded with that considerable financial investments are needed, and economics of scale is apparent in the industry, but on the other side it seems fairly simple to establish a firm in the sector. This entails that there is a threat from potential entrants, but this risk is recognized as medium in the European airline industry.

3.2.2 BARGAINING POWER OF BUYERS

Most customers perceive air travel as a marginally **differentiated** product (Palepu et al., 2016). Even though Norwegian and its competitors aim to differentiate themselves by offering different degrees of service and comfort, it could be argued for that the customer base act somewhat indifferent towards this. Since airlines are looked upon as less differentiated, they are required to compete on prices instead.

The level of industry information available for the customers has improved tremendously the last years due to **travel fare aggregators** and travel fare metasearch engines like "Momondo" and "Flightscanner". These services easily present purchasers with the price level on almost every available route. Secondly, they also easily provide cheaper departures on alternative dates from the original search. This implies that the customers possess a nearly perfect image of the air fare price-level. Taken into consideration that air travel offers low differentiation, it implies an increased bargaining power of buyers.

Contrarily, airlines **loyalty programs,** like Norwegian's "Norwegian Reward", ensures increasing switching costs. These schemes provide customers with increasing benefits every time purchasers decide to travel with the same company, such an advantage may be air travel free of charge. One has to collect points and for each trip with a particular company, the customer will experience increasing benefits (Palepu et al., 2016). With this in mind it can alter the purchaser's choice from the cheaper airfare to an airline offering a loyalty program. Taking the information above into account it is chosen to define the bargaining power of buyers as medium/high. The analysis shows that the service is marginally differentiated, and the customer's level of price information is almost perfect. There is however a mitigating effect created by the loyalty schemes.

3.2.3 BARGAINING POWER OF SUPPLIERS

The airline industry relies on an abundance of distributors, implying low switching costs on a general level (Porter, 2008). However, it is argued for that suppliers of aircrafts, parts, airports and fuel make up the most important ones due to them creating the biggest expenses for the airlines.

Firstly, one can reason for that it is a **duopoly** among aircraft manufacturers seeing as its only Boeing and Airbus that is able to produce high enough quality airplanes for Norwegian. Consequently, the market form is described as intense (Blackstone et al., 2012). Since the concentration of suppliers is lower than buyers in the airline industry it entails a higher bargaining power, which could provide the suppliers with leverage to raise the aircraft prices (Porter, 2008). Moreover, for airlines there is relatively low switching cost regarding suppliers, with the exception of spare parts and maintenance. Thus, a low threat of aircraft manufacturers cutting out the airline companies from the supply chain and conducting the airfare sales themselves.

Secondly, it is important to discuss the power of the airport suppliers. Supported by research conducted by Czerny & Zhang (2015) it is concluded that certain **airports operate as local monopolies**. Bigger cities like London however, provide several airports. The reasoning behind this is that if a company, like Norwegian,

wants to open a route to a new destination, it is only the destinations' specified airport that permits a company to conduct its operations there. The airports generate monopoly profit by increasing airport fees towards airline firms, giving them heightened bargaining power. IATA (2017) stated in their report that the airports should be enforced by greater regulatory action to avoid inflated prices. The switching costs of changing an airport are also particularly high, as a company needs to shut down all its routes to that particular airport.

The suppliers of **aviation fuel** indirectly influence the airline industry, justified by that the price set by the oil suppliers depends on demand (Besanko, 2016). When the relationship between supply and demand implies a heightened aviation fuel price, it is the airline industry that suffers the negative consequences. The indirect power will however not lead to increased bargaining power for supplier, as it is the market that sets the price. The concentration of suppliers is low, in addition to low switching costs entails a low bargaining power for jet fuel providers.

To finalize, based on the analysis the suppliers maintain a medium/high bargaining power over the airline industry.

3.2.4 THREAT OF SUBSTITUTE GOODS

The greatest threat for the airline industry and Norwegian is **bullet trains**, as it has been shown to be a competitive alternative to aircrafts. In Europe, the entrance of high-speed rail has cut in on market share in the short haul market for the airlines (Sun et al., 2017). However, in Norway, one of the least populated countries in Europe per square meter, low train speeds, long distances and demographics suggests a need for air transport. Bullet trains are best utilized between metropoles, as they need subsidies to be cost effective enough to be utilized between medium or smaller cities (Feigenbaum, 2013). Another point is that Europe is densely populated, and it is limited how straight the railways can be built to maintain speeds in these areas. On another side, bullet trains are seen as a miniscule threat to long distance flights due to increasing time differences as the kilometer differences to the destination increases. As a result, the threat of bullet trains exists, although not classified as the greatest threat.

Furthermore, **Videoconferences** can be utilized as a substitute for business trips (Denstadli, 2004). Skype Business and other software programs facilitate business meetings even if the participants should be located in different countries. The downside of such meetings is the lacking indirect communication, since a great amount of information exchange is conducted through body language. These and other weaknesses lead companies to prioritize business travels (Roy & Filiatrault, 1998). With this in mind videoconferences are looked upon as a smaller threat.

Altogether, it is concluded that bullet trains and videoconferences are substitutes for Norwegian and the airline industry. It is, however, deduced that they both exhibit considerable weaknesses that air travel does not feature. This leads to classifying the threat of substitute goods in the European flight industry as low.

3.2.5 RIVALRY AMONG EXISTING COMPETITORS

The European airline industry is already struggling with **overcapacity** (Franke & John, 2011). Since 2014 the industry passenger load factor has averaged around 80 percent (Mazareanu, 2019d). If the supply in an industry is larger than the demand, there is great incentive to lower the prices (Perloff, 2016). Since air travel is a less differentiated service, the airlines have to compete almost solely on price to fill up their empty seats. This overcapacity is hence increasing the industry rivalry implying lowered potential profitability (Porter, 2008).

The European airline sector seems to be in a period of a **declining concentration of competitors**. Around the millennium-shift an influx of new entrants entered the industry attributed to increased regulatory liberalization as mentioned in the PESTEL-analysis, simultaneously few ineffective flagship companies left. Many of these inefficient firms were saved by governmental funding. In the last years big airline firms have been liquidated – e.g. Wow Air and Thomas Cook (Holton & Faulconbridge, 2019; Sigurdottir, 2019). Researchers propose that it is due to an organic consolidation process of the European airline market, like EasyJet's purchase of AirBerlin (Bonova et al., 2019). Another argument for a greater industry rivalry is the high exit barriers due to the aircrafts **limited versatility**, leading companies to continue operations with negative net results, as portrayed by SAS some years ago and Norwegian in its present state.

The airline sector has since 2012 had a yearly ASK growth surpassing 4.5% (Mazareanu, 2019a). This period of high growth came after a period of moderate industry growth. In industries with a high growth companies are less inclined to fight each other for new market share. Contrarily, the airline sector growth implies a reduced rivalry inside the industry. Due to the analysis the total rivalry in the airline industry is estimated to be medium/high due to overcapacity, airlines limited versatility and high exit barriers, but on the other side the industry experiences an increasing consolidation and is in a high growth phase.

3.3 INTERNAL ANALYSIS

In previous sections the strategic analysis has been estimating the effects of macro- and industry-related factors impacting Norwegian's business. This chapter first implements an assessment regarding industry-specific operational drivers as these underlying factors give an indication in regard to Norwegian's future performance. Thereafter the firm's internal capabilities and resources will be analyzed through performing a VRIN-analysis. The VRIN-framework aims to investigate if these resources provide the company with a

sustainable competitive advantage, by examining if the resources are valuable, rare, imitability and non-substitutable (Barney, 1991).

3.3.1 AIRLINE SPECIFIC OPERATIONAL DRIVERS

The airline is dependent on certain measurements to project future performance; below the most industry relevant metrics are analyzed.

3.3.1.1 ASK: FLIGHT DISTANCE X AVAILABLE SEATS

ASK (Available Seat Kilometers) is a measurement of an airline's maximum capacity, which can be observed in Figure 7 (NAS_Q4, 2019). Its usefulness lies in predicting future performance, and a higher ASK metric could be unprofitable if one cannot fill aircrafts. Ryanair is excluded from the comparison as it does not report ASK. Norwegian and easyJet displays the highest and a growing ASK, whereas SAS portrays a more stable development of the metric. It can be pointed out that Norwegian's ASK has grown the quickest (CAGR = 16.5%), a result of aircraft leases and purchases. The company went from having the lowest potential capacity to almost providing the same ASK as easyJet. Lately Norwegian divested aircrafts, its Boeing MAX 737 fleet was grounded and a change in strategic intent towards achieving profitability was initiated, meaning the firm started to focus on lucrative routes instead of possessing a larger route network. This resulted in that the firm's total capacity stabilized.

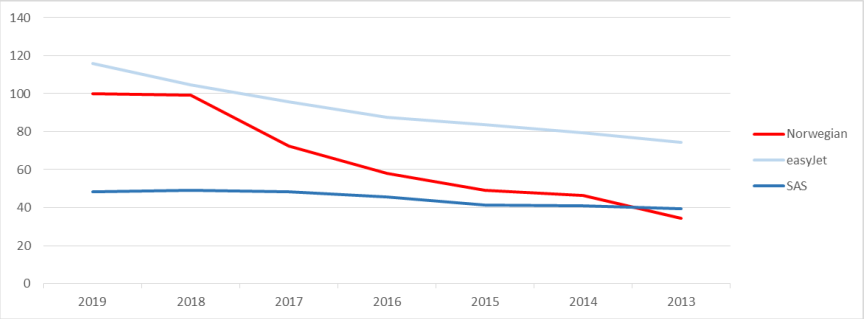

Figure 7. ASK (Million). Own creation based on annual reports (2013-1019).

3.3.1.2 RPK: DISTANCE TRAVELED X SOLD SEATS

RPK (Revenue Passenger Kilometers) is a tool utilized to assess the production level; it will be used to predict the company's financial outlook (NAS_Q4, 2019). Again, Ryanair is excluded from the comparison as it does not address its RPK. From figure 7 and 8 it is obvious that the development of RPK follows ASK, indicating the airlines have increased their capacity according to demand. Since the measure follows ASK, easyJet displays the highest RPK, and SAS the lowest, whereas Norwegian's RPK grew most intensively. Norwegian had a CAGR of 18%, meaning it has increased its RPK more than ASK. Thus, it can be concluded that during the historical period the firm's increased the number of kilometers traveled by paying customers.

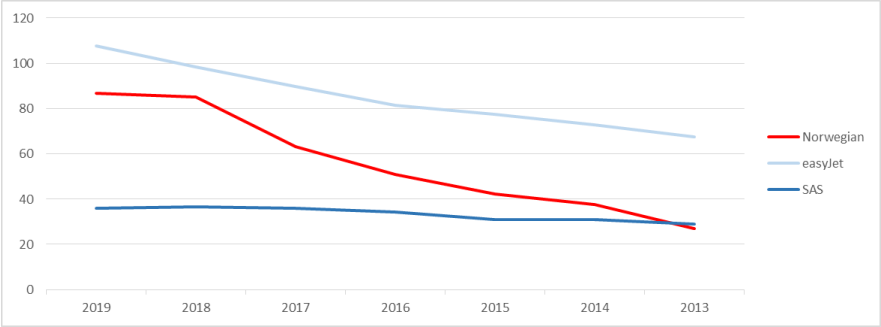

Figure 8. RPK (Million). Own creation based on annual reports (2013-2019).

3.3.1.3 LOAD FACTOR: RPK/ASK

The load factor measures the utilization of total capacity to generate revenue. The metric neglects the price level of the tickets, therefore not optimal to indicate industry profit levels (NAS_Q4, 2019). As a result, it should be investigated in relationship with yield. It can be argued for that a stricter LCC business model induce a higher load factor attributed to cheaper airfares as customers are more inclined towards buying the lower-priced tickets. SAS takes a higher profit margin, implying the company tolerates a lower load factor. This could indicate the company focuses more on business travelers, as this customer segment is less price-sensitive (Granados et al., 2012). Ryanair's load factor is superior and has been increasing the most, whereas Norwegian's ratio has grown 8.3% (2019-2013) as showed in figure 9. In 2018 Norwegian's load factor fell as a result of heavy capacity growth (NAS_AN, 2018). As for the rest of the peers, EasyJet and SAS presented relative stable load factors.

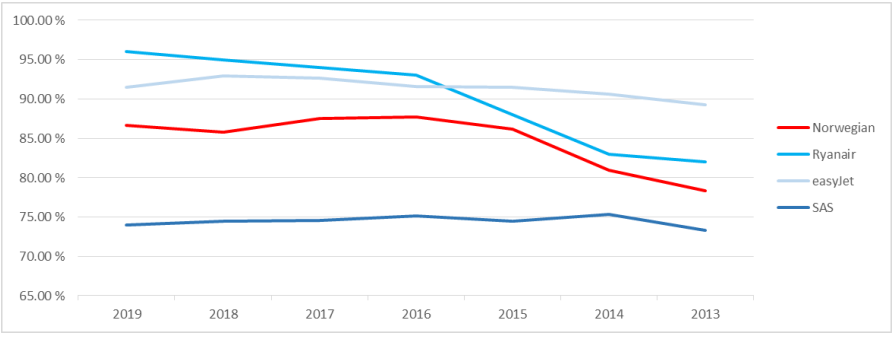

Figure 9. Load factor. Own creation based on annual reports (2013-2019) .

3.3.1.4 YIELD: REVENUE / RPK

The yield captures the average revenue per passenger kilometer (NAS_AN, 2018). Norwegian displays the lowest ratio, followed by easyJet, whereas SAS offers higher ticket prices leading to a higher yield as can be seen in figure 10. The LCC's mostly compete on price, simultaneously the competition is fierce as we discovered in P5F, resulting in lowered yields. The yield is also affected by other factors including the global economic state, distance traveled and cost efficiency. Norwegian has undergone an intensive growth phase, meaning it has been eager to expand operations. Contrarily, easyJet has grown slower which could indicate

that it only wanted to expand in more profitable cases. Norwegian's and easyJet's yields have been rather stable, whereas SAS' have increased recently, but reached the research period's peak in 2013.

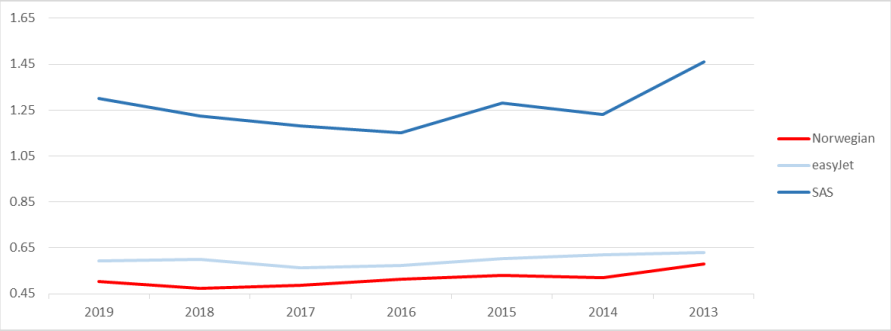

Figure 10. Yield. Own creation based on annual reports (2013-2019).

3.3.2 VRIN ANALYSIS

This framework will investigate potential sustainable competitive advantages, as elaborated on earlier.

3.3.2.1 BRAND

A resource that may potentially lead to a sustained competitive advantage is the company brand name. The firm's solid position in its market allowed Norwegian to raise its brand equity, in addition to establish itself as one of the leading airline enterprises in Europe (Market line, 2019). This is partly supported by Statista, where conducted research confirms that the firm's position in the Scandinavian market is strong (Stoll, 2019). The company has gathered recognition through winning several prizes like Skytrax World Airline Awards' Europe's leading Low-Cost Airline, Norway's most sustainable airline and more, all attained by several award giving organizations (Norwegian, 2019b). Skytrax World's award is based on individual airline passengers' ratings, and indicates that Norwegian's brand value premium is strong on a European level. High brand esteem and reputation have been linked to an increased market value, indicating its importance for the outlook of companies' future cash flows (Fernández-Gámez, 2016). Gromark and Melin (2011) discovered, through their study, that the most brand-oriented firms generated 2x the profitability compared to the least brand oriented companies. These findings indicate Norwegian's brand is non-substitutable. However, the rareness of this resource is low, as several airlines possess esteemed brands. SAS and KLM Royal Dutch Airlines are just some of the European airlines that were highly rated in Statista's (2019) chart showing the world's best airlines. Contrarily, it will be hard for competitors to imperfectly-imitate Norwegian's brand name, without providing equal services as a low-cost carrier. Furthermore, it can be argued for that Norwegian's brand name is non-substitutable as weaker brand equity could result in fewer customers, and lower profitability as disclosed earlier.

3.3.2.2 AIRCRAFTS

Norwegian claims to be in possession of one of the most modernized and environmentally friendly air fleets in the industry. The average fleet age is estimated to be 3.8 years, indicating it is one of the newest worldwide. The fleet displays high fuel-efficiency, which lowers unit costs and provides better comfort regarding noise and cabin pressure (Norwegian, 2019h). Its modernity indicates lower maintenance costs, and as a consequence the resource is considered valuable. However, as mentioned in the PESTEL-analysis, 18 of their aircrafts are grounded, raising costs and limiting profit. In addition, Norwegian mentions it is having trouble with its aircraft engines, regarding a few Dreamliners, which is projected to be corrected soon (NAS_Q4). These are industry problems, which also affects other airlines (Boeing, 2019). Furthermore, as most European airline companies possess older aircraft models; it entails rareness of the resource (European Commission, 2019b). These vehicles are nonetheless easily imitable, as the only resource needed to attain a new aircraft by rivals is financial resources, which one can attain through various means, for instance a share offering. As for its substitutability, a modern air fleet cannot be substituted, as it implies raising expenditures. The GMBM arrangement mentioned in the PESTEL-analysis, an agreement regarding cutting the aviation sectors carbon footprint, could imply competitors having to modernize their air fleet to avoid fines or excess costs. It is therefore hypothesized that flight investments will be made by competitors in the near future, to negate Norwegian's competitive advantage, suggesting that it is only temporary.

3.3.2.3 BUSINESS MODEL

In section 2.1.5 it was explained that Norwegian operates as an LCC. The business model's foundation is low air fares, with higher margins on optional services. Norwegian has the last few years operated long haul flights and is one of the only LCC's applying this strategy. There is however research indicating this is profitable for airline companies. It was found that a base load capacity of 65% was needed to be profitable on these routes which Norwegian exceeds, assuming its load factor is somewhat similar for all routes (see section 3.3.1.3) (Daft & Albers, 2012). Research conducted by Warnock-Smith et al. (2017) found that extra costs on ancillary services could boost profitability. Since Norwegian is the only provider of such items during its trips it acts as a monopolist, implying the company can increase their profit margins. Therefore, it is argued for that Norwegian's business model is valuable and important for an optimal expense level in relation to potential earnings. British Airways introduced their LCC Level in 2017, which conducts long haul flights from Barcelona to several destinations; Lufthansa launched Eurowings, another company operating with a similar business model (Level, 2019; Eurowings, 2019). This infers the resource's rareness is limited as other companies are utilizing the same business model. Even though there has been an increase in companies employing comparable business models, there may be hardships for already established companies to imitate this business model. To reposition the firm to align with an LCC-strategy utilizing long haul flights demands changes in strategy and cost structure. Companies already operating within the low-cost carrier segment could, however, position themselves to also operate in the long haul-market, thus imitate the business model. LCCs and FSCs establishing LCC-subsidiaries could also copy the business model in the

future. This strategy is however arguably substitutable, as research shows that European full-cost carriers like Lufthansa and Air France-KLM were some of the world's most profitable airlines in 2018 (Statista, 2019).

3.4 SWOT-ANALYSIS (CONCLUSION)

To conclude the analysis and therefore summarize the important findings of the strategical analysis, a SWOT-matrix will be utilized, which is illustrated in figure 11. The framework helps provide an understanding of Norwegian's strengths, weaknesses, opportunities and threats, here in relation to future performance (Johnson et al., 2011).

The information gathered in this chapter does not suggest Norwegian attains a strategical advantage through its operations or by its business environment. The analyst discovered no internal resources with a potential for a sustainable competitive advantage per 31.12.2019, suggesting that company profit cannot greatly surpass the European industry average.

Internal	
Strengths	Weaknesses
+ Few companies with a similar business model + Modernized air fleet entailing reduced fuel/maintenance cost + High brand equity + Restructuring of top management: Shift in strategy from growth to profitability (see section 2.1.4)	- No internal resources providing a sustainable competitive advantage - Vulnerable to foreign currency appreciation - Engine trouble with Dreamliner aircrafts
External	
Opportunities	Threats
+ Projected European GDP growth could increase demand + Lowered oil price could reduce unit costs + Positive outlook in the global airline industry: Demographics could increase the market size + New aircraft technology reducing costs + ECAA may decrease costs and promote growth + Hedged fuel costs could lower operational risk	- Political uncertainty: Brexit could impact airline profitability - Bullet trains and video conferencing software - Regulation may further increase costs - New entrants with an LLC business model - Unforeseen circumstances (e.g. terrorism/diseases) - predicted increase of interest rates could increase costs - Airline security measures could increase fees - Boeing 737 MAX grounding raising costs - P5F portrays high/medium pressure from all forces indicating unfavorable industry profitability, a result of lower profit margins

Figure 11. Norwegian's SWOT model. Own creation.

4. FINANCIAL ANALYSIS

Historical data regarding Norwegian's financial value drivers provides an analyst with accurate premises to decide correct future cash flows for the company. Therefore a cross-sectional analysis will be conducted to analyze the firm's financial performance in comparison to its peers, followed by a liquidity risk analysis.

To be able to perform a reliable financial analysis, a historical period has to be identified. It is decided to base the financial analysis on the annual reports from 2013 to 2018 and the Q4 report regarding year 2019, which implicates a moderate research period of 7 years. This historical period is deemed adequate enough to be able to conclude properly about the company's future earnings potential and acquire a sufficient base of the firm's financials, in the writer's opinion. This is attributed to Norwegian's increased focus of their long-haul routes, entrance into new markets, establishment of several daughter-companies during 2013 and a change in the organizational structure, as opposed to earlier years (NAS_AN 2013). This implies older financial statements will be less representative for future financial performance. On the contrary, in the research period Norwegian experienced solid growth; this may not perfectly reflect how the enterprise's future performance will unfold. As elaborated on in section 2.1.4, Norwegian recently changed its current strategic intent towards achieving profitability as opposed to growth. This entails cost cutting in addition to a reduction in investments, which has not been the main focus in the company's past.

4.1 ACCOUNTING QUALITY

A vital part of a financial analysis is the assessment of accounting quality. It is important to make sure changes in financial metrics reflect on relevant alterations in these ratios based on Norwegian's financial condition and underlying operations, as opposed to the changes from accounting principles (Petersen & Plenborg, 2012). As the aim of this paper is to obtain Norwegian's share price utilizing the DCF and EVA method, satisfactory accounting quality are identified based on (Petersen & Plenborg, 2012):

- ✓ A peer group applying matching accounting policies.
- ✓ A distinct separation between permanent and transitory accounting items in the statement of operations.
- ✓ Utilize equal accounting policies for the financial statements in the time period in question.

Transitory items are defined as accounting items with a minor probability of recurring, and are removed from analytical balance sheets and analytical statement of operations. In most cases companies implement this, by stating in their annual report, if the item in question has been non-recurring losses/gains impacting a company's financials. However, sometimes the analyst must evaluate and assess if the accounting item's occurrence is of a one-time nature (Petersen & Plenborg, 2012).

All companies report that they recognize revenues on the income statement when the performance obligation in the contract is satisfied, meaning air transport (NAS/SAS/Ryanair/easyJet_AN, 2019-2013; NAS_Q4,

2019). Regarding the peer group's condoned accounting policy, the firms utilize the International Financial Reporting Standards (IFRS). A change has been made during the relevant research period, namely converting operational leases from the statement of operations to be accounted for on the reformulated balance sheet where necessary. The currency utilized by Norwegian in their financial statements are Norwegian Kroner (NOK), whereas Ryanair use Euro (€), easyJet utilize British pounds (£) and SAS report their financials in Swedish kroner (SEK).

4.2 REFORMULATION OF FINANCIAL STATEMENTS

Firms conduct financing, operating and investing activities. As operations mainly stimulate value creation, it is vital to divide between financing activities and operational activities, in addition to investments in operations, when performing a company valuation (Petersen & Plenborg, 2012). Reported financial statements neglect these features, thus alterations have been done to Norwegian and its peers' financials to identify the operations' most crucial value drivers. The upcoming sub-chapters will elaborate on, and substantiate important classification concerns regarding these changes.

The peer group's financial statements consist of similar accounting items. Therefore, alterations conducted in Norwegian's reformulation of balance sheet and statement of income is also regarded as important for the peer groups financial statements, unless the contrary has been established. This may implicate that original names regarding certain accounting items in the financials, deviate from the ones established in the reformulated financial statements.

Lastly, the financial statements for 2019 are retrieved from Norwegian's Q4 report (2019q), which is not as detailed as an annual report. This entails that some accounting items that ideally should be divided on the financial and operational side will not be separated, due to missing information. This means that assumptions will be taken accordingly, as this is considered superior compared to not include the company's financials from 2019 when conduction a valuation per 31.12.2019.

4.2.1 REFORMULATION OF THE INCOME STATEMENT

Accounting items has been classified as *operational* and *financial* in the reformulated income statement, also referred to as *core* and *none-core* operating activities (Petersen & Plenborg, 2012). If an item is deemed transitory, this is also elaborated on. The reformulated income statements for Norwegian and its peer group are to be found in appendix 1. The following alterations have been conducted:

- **Revenue**: Stems from *Passenger transport*, *Ancillary revenue* and *Other revenue*. The latter must be further investigated, whereas the two other accounting items are classified as core operational activities. Norwegian explains that *Other revenues* include cargo, externally leased aircrafts, third-party products and other income in their Q4 report (2019q). As their reward program is included in

third-party products, and indirectly a core operation this accounting item is also regarded operational. Due to the Q4 report's limitations, i.e. it does not split up *Other revenues*, all types of revenues are defined as core activities.

- **Profit (loss) from associated companies:** Norwegian has experienced gains attributed to two of their associated firms, that it invested in (including joint ventures) amounting to 37.1 MNOK (NAS_Q4 2019). The companies it is being referred to are (NAS_AN, 2018):
  - → *OSM Aviation Ltd.*: This company provides Norwegian with services regarding airline crew management therefore clearly associated with Norwegian's core operational activities.
  - → *Bank Norwegian AS*: Totally divested from in 2019 (NAS_Q4, 2019). However, during 2018 Norwegian owned 16.4% of the firm's shares. As this company is related to its loyalty program, a core operation, it is classified as an operational item.

  Additionally, as these two investments are recurring items, they are classified as operating income, or core activities according to Petersen and Plenborg (2012).

- **Operational lease**: Leasing costs related to aircraft financing is a way of financing an airline company's operations, thus classified as a financial item. Per 01.01.2019 Norwegian were obliged to include leasing costs on their balance sheet due to IFRS 16; however, before that fiscal year operational leases were listed on the statement of operations, in contrast to a financial lease and debt financing. This implies that both the statement of comprehensive income and the statement of financial position have to be corrected for this accounting item, for the time period 2018-2013. This infers that *lease interest* is classified as part of the reformulated income statement. This computation can be seen in appendix 2, and the calculation will be further described in 4.2.2.
- **Payroll and other personnel costs**: *Pension costs* could have been defined as a financial item, argued with that they are pension returns, in addition to estimates of future payouts (Petersen and Plenborg, 2012). However, as the Q4 report (2019q) does not mention the amount of *Pension costs* in the *Payroll expenses and other personnel expenses*, it will not be extracted. In the analysts opinion the item should be split up each year if it should be split up one fiscal year, to establish coherency. The whole post is therefore regarded as operational. Since pension costs make up roughly 5% of the accounting item in previous fiscal years, its influence will not be significant.
- **Operating expenses**: The rest of *Operating expenses* are connected to Norwegian's core operations, therefore regarded as operating activities.
- **Tax on core operations:** As taxes are derived from both financing and operational items, they should be divided into core and non-core items for analytical intentions (Petersen & Plenborg, 2012). The accounting item is however not separated in Norwegian's public financial statements. Thus, taxes for core and non-core operations have been determined from EBIT's (operational) and net non-

core operations' (financial) respective percent of pre-tax profit multiplied with the corporate tax expenses (or income). This also applies to the peer group.

- **Other financial income:** Norwegian earned 1939.8 MNOK from the sale of their shares in NOFI (Bank of Norwegian) (NAS_AR 2018). This is looked upon as a transitory accounting item, hence not a part of core activities. Moreover, the whole accounting item *Net financial items* are regarded as financial operations, implying they are not a part of core operations.

4.2.1.1 TRANSITORY ITEMS

- **Impairment:** In 2017 Norwegian attributed 655.9 MNOK to impairment, as this is of a one-time nature it is regarded as a transitory item, a part of non-core activities.
- **Other gains/(losses):** Yearly Norwegian adjusts their assets according to a fair value. However, this does not indicate persistent performance of the firm as the post is highly fluctuating and abnormal it is defined as a non-core activity. In 2019 divested from Norwegian Finance holding ASA, in addition to selling their Argentinian subsidiary to jetSmart (see section 2.1.2) as it wanted to trim its route network (Norwegian, 2019g). As sales of subsidiaries and other abnormal activities are not an annual occurrence the accounting item is defined as a transitory item, thus identified as a financial item (Petersen & Plenborg, 2012).

4.2.2 REFORMULATION OF THE BALANCE SHEET

The aim of reformulating the balance sheet is to arrive at an estimation of the firm's net interest-bearing debt (NIBD) and invested capital. NIBD is the amount of interest-bearing debt minus cash/cash equivalents, whereas invested capital consists of the amount a company invested into operational activities requiring a return (Petersen & Plenborg, 2012). The accounting items have been separated into operational (core operations) or financing (non-core operations) accounting items. Reformulated balance sheets for Norwegian and the peer group are to be found in appendix 3.

4.2.2.1 OPERATIONAL ACTIVITIES

- **Operational leases:** Operational leases are utilized to fund aircrafts in the airline industry, but do not appear on the balance sheet and needs to be classified as an operational item, implying hidden gearing. The accounting item indicates that a company agrees to an operational leasing contract which entails future payments; these commitments should be converted to debt to portray a correct depiction of the company's financial situation (Damodaran, 2006). As a result, not converting the accounting item would entail Norwegian artificially lowering operating profit, while simultaneously portraying artificially higher capital productivity, influencing the financial analysis if not corrected.
  The conversion of operational leases is conducted following one of Koller et al.'s (2010) approaches; its exact calculation can be seen in appendix 2 as previously mentioned. Since Norwegian did not

publish their annual report for 2019 (as of 08.05.2020, last checked), the capitalization rate of 5 collected from their annual report from 2018 is utilized. This is line with findings from Moody's Investor Services (2017), which suggest an operating lease sector multiple of 5 for the sector *Passenger Airlines*. Moreover, this factor will also be applied in lease calculations for the peer group. This multiple is multiplied with the operational lease payments, providing a present value (PV) of 2018 at 21770.5 MNOK which is referred to as capitalized operational leases on the reformulated balance sheet. To compute the interest expense for the converted debt, the cost of debt equal to 7.56% found in sub-chapter 6.1.4 is used. Research suggests that lessors have accounted for leases in addition to its risk in their interest requirement, indicating its relevance (Damodaran, 2009). The remaining lease expenditures are depreciations, which shall be included in the firm's operating expenses. This methodology will be applied for the whole peer group to provide coherency for the paper.

- **Right of use assets, aircrafts and parts:** The privilege to use an asset over the leasing period, and newly implemented due to IFRS 16 (IFRS, 2019). In 2019, it accounted for 33245 MNOK on Norwegian's balance sheet. As Norwegian's leased aircraft are utilized in their core operations, it is also regraded as a core accounting item.
- **Fixed asset investments:** This accounting item combines *Derivative financial instruments*, *Investment in associate* & *Other receivables*. The former regards hedging derivatives which should be classified as a financing asset and liability (Petersen & Plenborg, 2012). However, as Q4 does not elaborate on how much of *Fixed asset investments* regard *Derivative financial instruments* it is classified as an operational item. Moreover, Norwegian states that these derivatives are hedges regarding fuel prices and currency exchange rates (NAS_AN 2018). Fuel derivatives are vital in prevent fluctuations regarding a commodity essential to operations, whereas the currency hedge ensures lower risk regarding international currencies (financial), it could be argued for that fuel hedges should be included in core operations. This premise is however considered to be insignificant. In addition, derivative financial instruments concerning liabilities (included in *Other current/Non-current liabilities*) are also regarded as core operations.

  These accounting items include *Current tax*, which equals the monetary amount a company is obliged to pay in insufficient taxes (Petersen & Plenborg, 2012). As Norwegian does not disclose if there is an interest charge from their tax payables, it could be classified as a core item. This strengthens the argument for classifying these liabilities as a core-operation.

  Investment in associate regards investments in Norwegian Finans Holding ASA and OSM Aviation Ltd. As explained in the previous section, it is classified as classified as an operational accounting item.

Other receivables could be defined as a financial activity or capital invested in operations according to Petersen & Plenborg (2012), dependent on if it regards loans from associated companies or debt from intercompany trading. However, as a consequence of Q4 (2019)'s combining different accounting items into one item it is included in core operations.

- **Intangible assets (including *Deferred tax assets*):** Past tax credits presumed to be used for the future reduction of taxes. According to Petersen and Plenborg (2012) *Deferred tax assets* should be classified as operational, as it linked to operations. Furthermore, *Intangible assets* are regarded as operational, as it consists of software, goodwill slots and intellectual property.
- **Prepayment to aircraft manufacturers:** Payments conducted prior to delivery of an aircraft (NAS_AN, 2018). This is considered a periodic adjustment item in relation to when the aircraft is purchased, and it is collected. The item is therefore classified as operational**.**

4.2.2.2 FINANCING ACTIVITIES

- **Cash and Cash equivalents:** Cash may be divided into excess cash and operating cash (Petersen & Plenborg, 2012). Norwegian does not separate between the two accounting items in their statement of financial position. Accordingly, *Cash and cash equivalents* are identified as a financial item, hence not utilized in Norwegian's core operations.
- **Assets held for sale:** In 2018 Norwegian sold two aircrafts for 26 Million USD, whereas in 2019 Norwegian sold 5 aircrafts (NAS_Q4, 2019; NAS_AN, 2018). It is decided to define the accounting item as a financial item, as it involves divesture. *Financial assets held for sale* and *Financial assets available for sale* are also regarded as non-core operations.

4.3 PROFITABILITY ANALYSIS

Profitability is an influential metric when assessing and establishing a company's *future outlook,* as it indicates economic strength and is necessary to provide stockholders with satisfying investment returns (Petersen & Plenborg, 2012). This chapter is based on the DuPont framework (visualized in figure 12) as condoned by Financial Statement Analysis (Petersen & Plenborg, 2012). EBIT (Earnings before interest and taxes) will be analyzed, to measure the level of profitability Norwegian operates at, although NOPAT (Net operating profit after tax) would be more optimal. This is attributed to the peer groups various corporate tax rates, a result of different countries' taxation policies. EBIT enables one to analyze firm performance, including depreciation/amortization, while excluding the effect of leverage, interest and taxes. All in all, EBIT provides a reasonably clear picture of core operations.

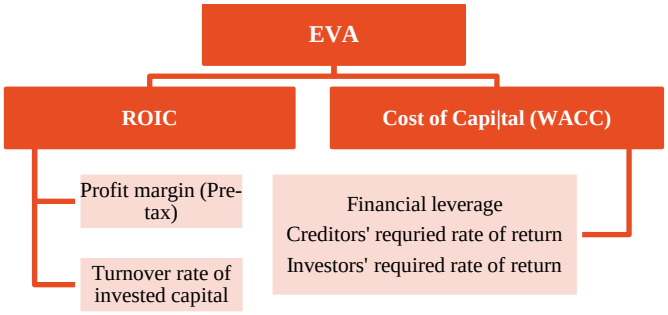

Figure 12: DuPont Model. Own creation based on Petersen & Plenborg (2012).

4.3.1 ECONOMIC VALUE ADDED (EVA)

Economic value added (EVA) informs an analyst regarding the firm's ability to generate abnormal profits for its shareholders (Petersen & Plenborg, 2012). It does this by measuring if the return on invested capital (ROIC) is larger than the required return (WACC). The metric will be analyzed by looking at each component separately.

4.3.1.1 DECOMPOSITION OF PRE-TAX ROIC

ROIC measures the degree of operating profitability, hence indicating a firm's ability to generate returns (Petersen & Plenborg, 2012). The pretax ratio will be calculated, resulting from the use of different tax rates in the peer group.

$$\boldsymbol{ROIC} = Profit\ Margin\ (Pre\ tax) * Turnover\ Rate\ of\ Invested\ Capital$$

The subsequent ROIC-decomposition will reveal if it is effective capital utilization, or the degree of earnings in comparison to expenses that stimulate company profitability.

4.3.1.2 PROFIT MARGIN (PM): EBIT/REVENUE

A profit margin displays the revenue-expense relationship through computing EBIT as a percentage of total revenue and the metric can be observed in figure 13 (Petersen & Plenborg, 2012). The NOPAT-margin will not be utilized attributed to different tax rates among the peers. Norwegian's total revenue increased from 15,580 MNOK (2013) to 43,521 MNOK (2019), indicating a seven year growth of 179.4% or a compounded annual growth rate (CAGR) equal to 15.8%. This is more than 2x the revenue growth of its peers, suggesting Norwegian was in another company phase (high growth) building up its economies of scale. This is understandable as the company is the newest carrier in the group.

- **Revenue:** Norwegian attributes its revenue growth in 2019 to heightened unit revenue, meaning higher net sales per ASK to last year; a consequence of a shifted focus from overall growth to route network optimization (NAS_Q4, 2019). However, in their last quarter (Q4) the positive effects from unit revenue were mitigated by increased unit costs. Previous years, their strong revenue growth in

the research period can be explained by a passenger increase according to Norwegian, presumably a result of aircraft acquisitions utilized in their expanding route-network (NAS_AN, 2017). The revenue growth exceeded 15% annually except for last year, in line with the change in strategic intent from growth to profitability (section 2.1.4).

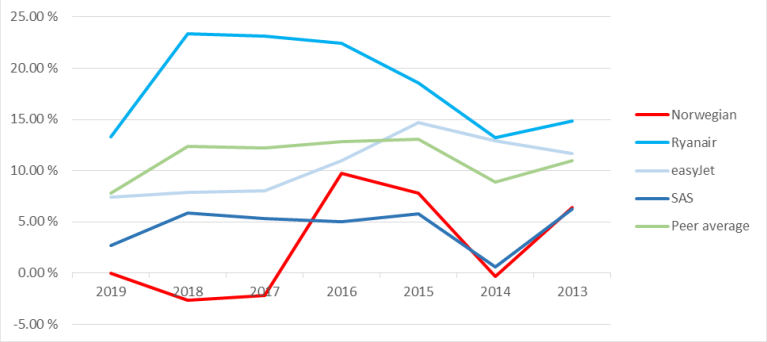

Figure 13. Profit margin. Own creation based on annual reports 2013-2019.

Through the cross-sectional analysis (figure 13) we observe both Norwegian and its peer-group has a lower EBIT-margin now, than in 2013. There is a wide spread in profit margins, but the general trend is a fluctuating negative development, with a peak in profitability around 2015-2016, suggesting that the airline industry's profit margin relies on economic-cycles as mentioned in the PESTEL-analysis. Moreover, during the whole research period Norwegian experienced a lower EBIT-margin than the peer average, and is the only company throughout the historical period with a negative PM. The EBIT-margin stays negative for 4 years during the historical period. The peer group average is however increased by Ryanair's dominating performance, mainly based on their lower costs compared to revenue. Since Norwegian's revenues have increased annually, the ratios negative development can be explained by the increase of company costs.

Following this paragraph a breakdown of the most important changes in Norwegian's OPEX (and depreciation) will be conducted by analyzing it as a percentage of revenue (appendix 4). The common size analysis is carried out in order to further investigate and gain insight into the development of Norwegian's EBIT-margin.

- **Aviation fuel:** The flight industry had significantly favorable jet fuel prices between 2015 and 2017 (section 3.1.2), explaining the superior profit margins in the industry during that time period (for Norwegian: excluding 2017, a consequence of higher total OPEX and depreciations). Normally fuel expenses account for about 30% of Norwegian's revenues, arguably the largest operating expense for the industry. However, in those years it only represented 20% as lifted Iranian sanctions lowered the price of its main cost driver, the oil price (Bryan & Humphries, 2016). Aviation fuel growth was found to be normal, as a CAGR of 15% and a total growth of 168% is within a normal growth range for Norwegian's OPEX.

- **Airport and ATC charges:** This cost item has decreased annually from 14% (2013) to 9.5% of revenues (2019), a positive development for Norwegian. Total growth of 90% and a CAGR of 10% indicate a favorable growth for this cost item as the ideal scenario is increased net sales, without increasing costs. The growth of these charges can be attributed to the heightened amount of departures, however declining in 2019 due to reduced production and renegotiated contracts with vendors (NAS_Q4, 2019).
- **Handling charges:** Norwegian's handling charges stood for one of the biggest increases of a cost item in terms of revenue. It rose from 8.6% to 12.1% during the research period, causing a negative effect on the profit margin. These consequences are derived from heightened compensation costs to customers and departure punctuality (NAS_Q4, 2019). 22% CAGR and a total growth of 293% entail Norwegian's handling costs were one of the most increasing costs during the research period.
- **Technical maintenance expense:** This expense segment experienced a slight increase as a percentage of revenues (1.5%) during the historical period, partly attributed to unfavorable currency rates. It could also indicate that Norwegian's purchase of newer aircrafts led to increased maintenance costs as they are more advanced, thus harder to repair; also its air fleet was growing. However, in 2019 this cost item decreased partly due to reduced production (NAS_Q4, 2019). All in all, it experienced a 20% CAGR.
- **Total OPEX:** Norwegian's total operating expenses as a percent of net sales had an increasing trend until 2018. It then decreased the last fiscal year, from 90% in 2013 to almost 80% of revenues. The development suggests a positive trend in Norwegian's total cost management, partly attributed to their cost saving program (#Focus2019) reducing capital expenditures by 2300 MNOK in 2019. Simultaneously, the positive development was stunned by diseconomies of scale resulting in 10% higher unit costs. Excluding fuel expenses these costs increasing by 15% according to the company itself (NAS_Q4, 2019). However, information gathered from the last Q4 report (2019) show that Norwegian's 19% cut in capacity shrinks their OPEX, while net sales increases; a positive development. This is partially due to a sale of 24 aircrafts (22000 MNOK), divesture of an Argentinean subsidiary and sales of Bank Norwegian shares (2200 MNOK) (Norwegian, 2019f). This suggests that it positively manages its core operational costs per 2019, while increasing revenues meaning a favorable PM development. All costs considered Norwegian is lowering its variable costs; contrastingly, their fixed costs are still harder to decrease due to settled investments, contracts and agreements.
- **Depreciation (incl. lease depreciation):** One of the biggest contributors to the firms lowered EBIT. Their depreciations experienced an increase from 8.5% to 14.8% of revenues, accentuating its effect as a high cost item. This development is an effect from Norwegian's aggressive airplane purchases, increased aircraft leases, depreciation on grounded aircrafts (737 MAX) which do not generate

revenues, in addition to currency headwind (NAS_Q4, 2019). The firm increased its air fleet to support their growth period, naturally raising depreciations. In total this accounting item grew 386% with a CAGR of 25%, meaning it is the fastest growing expenses. It therefore decreased Norwegian's EBIT accordingly.

4.3.1.3 TURNOVER RATE OF INVESTED CAPITAL: REVENUE / INVESTED CAPITAL (IC)

This measure estimates a company's capability to utilize their invested capital to generate revenue (Petersen & Plenborg, 2012). As a result of the aviation industry being capital intensive, a lower turnover rate of IC follows. If all other determinants are stagnant a higher turnover rate of IC is beneficial as it implies the company's IC is tied up in a shorter time period, hence a more effective use of net operating assets to generate higher earnings (Petersen & Plenborg, 2012). From figure 14 a general trend can be observed; that all carriers have reduced their turnover rate of IC. Norwegian's turnover rate went down from 116% to 71%, meaning that IC has grown quicker than company revenues. The company's development of this metric can be attributed to investments in new aircrafts and aircraft leases, increasing the invested capital accordingly.

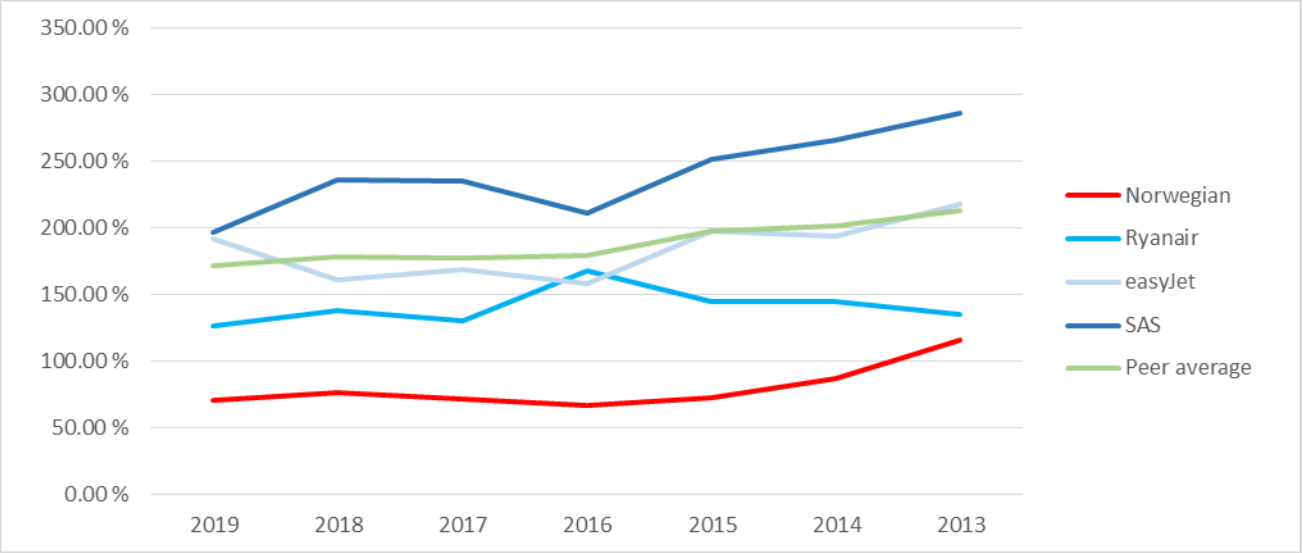

Figure 14. Turnover rate of IC. Own creation based on annual reports 2019-2013.

The intuition derived from the figure is that Norwegian clearly is the worst at utilizing its invested capital to increase the ROIC. Contrastingly, Ryanair and easyJet attains the most favorable ratios as a result of low net operating assets. However, each company has experienced a decrease in this ratio, attributed to a rise in invested capital. Norwegian has been in a growth phase, therefore acquired new leases and purchased aircraft. These activities normally increase net operating assets more aggressively than it generates company earnings in the same fiscal year. It is a future investment; the intuition is that it brings heightened net sales in later years. In other words, this ratio entails that invested capital in the airline industry grew more intensively than that of the sector's earnings.

4.4 ROIC (SUB-CONCLUSION)

As clearly illustrated in figure 15 Norwegian attains the worst ROIC-ratio among its competitors in the peer group, tightly followed by its Scandinavian competitor SAS for the research period in question. It is however eminent that the airline industry does not have an attractive ROIC (see P5F) compared to other industries, i.e. pharmaceuticals (Porter, 2008). Norwegian presents a decline of 7.47% (from 2019-2013). Contrastingly, Ryanair has achieved a superior ROIC as both its PM and IC were the highest, compared to the other firms. The trend for Norwegian has been a negative development due to expansion and aircraft investments. On the other side, Norwegian can display revenue CAGR of 15.8%, much higher than its peers. Solely in 2018 twenty-five new aircrafts was delivered to the company, with a positive development in 2019 attributed to cost reductions of 2.3 billion NOK mentioned in section 4.3.1.2 (NAS_AN, 2018). As a result of aircraft investments, higher depreciations and OPEX lowered EBIT. Simultaneously, these factors increased invested capital meaning a decrease in the turnover rate of invested capital. 2017/2018 resulted in the lowest ROIC, whereas 2019 portrayed a mildly positive development due to restructuring and shift in strategy. As elaborated on in section 4.3.1.2 2016 and 2015 reaches favorable ratios, partly as a consequence of advantageous oil prices. With these findings in mind, it can be concluded with that it is vital for Norwegian to follow through on its change from growth to profitability and restructuring if it wants to increase its profitability.

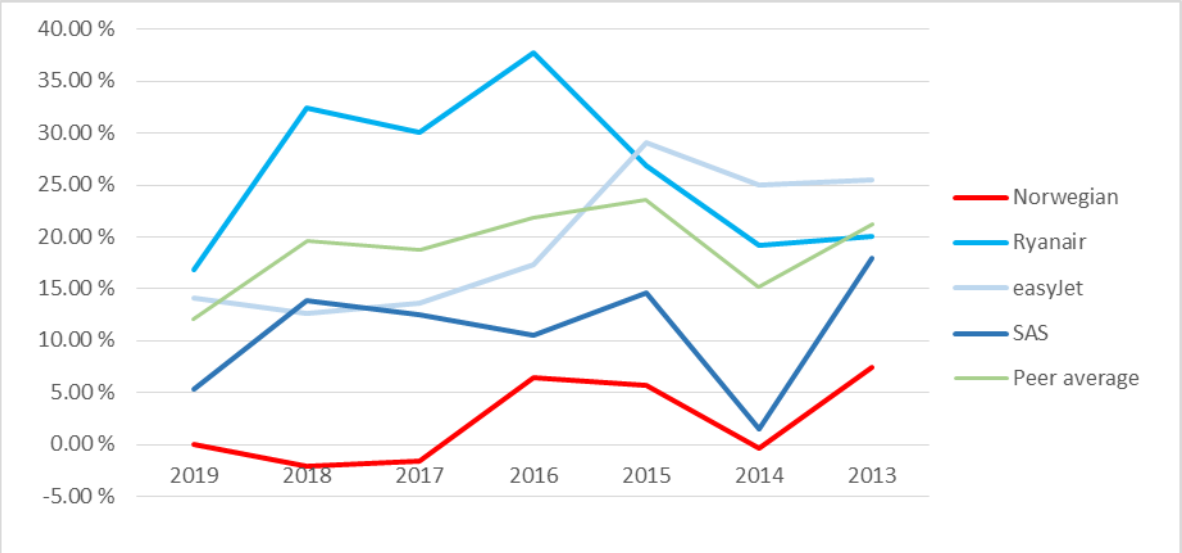

Figure 15. ROIC. Own creation based on annual reports 2019-2013.

4.5 COST OF CAPITAL (WACC)

WACC stands for *Weighted Average Cost of Capital,* implying it is the average of a company's debt and equity financing costs; the measure utilizes the two balance sheet items proportions to estimate a total capital cost. It is vital in company valuations, as it computes the interest costs on investments, thus providing a total

required return for both creditors and investors (Petersen & Plenborg, 2012). In section 6.2 a thorough estimation of the key ratio in question, with regards to Norwegian's forecasting period can be found. The computation for Norwegian's WACC in the research period is attached in appendix 5. Norwegian's historical cost of capital can be observed in the figure 16 below.

Norwegian	2019	2018	2017	2016	2015	2014	2013
Historical WACC	7.63 %	7.94 %	7.67 %	7.48 %	7.64 %	8.54 %	7.98 %

Figure 16. Norwegian's historical WACC. Own creation based on annual reports 2019-2013.

4.6 PRE-TAX EVA (SUB-CONCLUSION)

Norwegian generated low (and often negative) returns on invested capital, compared to what investors and creditors required each fiscal year. Match this with the company's high invested capital, attributed to their growth period and a capital intensive industry. As a result, Norwegian did not generate economic value added from its operations during the research period, but rather destroyed it. Lastly, one may add that the recent annual development (2018-2019) is positive, although a negative EVA Norwegian has improved its performance, an indication of that Norwegian's efforts to become profitable are working. As the firm presented negative EVA throughout the research period results were not benchmarked against peers.

EVA (MNOK)	2019	2018	2017	2016	2015	2014	2013
ROIC	-0.01 %	-2.06 %	-1.56 %	6.49 %	5.67 %	-0.32 %	7.47 %
WACC	7.63 %	7.94 %	7.67 %	7.48 %	7.64 %	8.54 %	7.98 %
Invested Capital	61202	52457	43114	38974	31080	22528	13387
EVA	-4674	-5248	-3979	-385	-614	-1995	-69

Figure 17. EVA. Own creation based on annual reports 2019-2013.

4.7 DECOMPOSITION OF RETURN ON EQUITY (ROE)

Previously, Norwegian's operational profitability got analyzed through assessing its EVA. ROE on the other hand estimates the effect of financial and operating leverage regarding profitability (Petersen & Plenborg, 2012). The measure is computed using the following formula:

$$\boldsymbol{ROE} = ROIC + (ROIC - Net\ Borrowing\ Costs) * \frac{Net\ InterestBearing\ Debt}{Book\ Value\ of\ Equity}$$

4.7.1 SPREAD: ROIC – NBC

When subtracting the net borrowing costs from the return on invested capital an analyst computes the *Spread*. This ratio accentuates the financial leverage's impact on a company's profitability (Petersen & Plenborg, 2012). The NBC is calculated utilizing this method:

$$\boldsymbol{NBC} = \frac{Net\ Financial\ Expenses}{Net\ InterestBearing\ Debt}$$

In 2019 Norwegian's net financial items amounted to -661 MNOK, partly due to the recognition of IFRS 16 (-456 MNOK) taking interest of all leases into account (NAS_Q4, 2019). This was however somewhat offset by the sale of its Argentinean subsidiary. A rise in NIBD (further explained in the next section) did increase the spread back to levels around 4.5%. The company's declining ROIC is also responsible for lowering the spread in the last three years. As we can observe in figure 18 Norwegian attains the lowest spread among its peers, a result of the low ROIC. Net borrowing costs impact on the spread is lower attributed to high net interest-bearing debt in relation to the peer group.

Spread	2019	2018	2017	2016	2015	2014	2013
Norwegian	4.43 %	-1.25 %	4.10 %	11.07 %	9.98 %	4.44 %	17.47 %
Ryanair	25.43 %	23.50 %	19.96 %	123.19 %	78.88 %	-22.33 %	-2.00 %
easyJet	24.57 %	7.96 %	2.46 %	15.48 %	26.03 %	23.80 %	56.26 %
SAS	7.95 %	8.96 %	7.08 %	6.28 %	5.22 %	-10.57 %	9.29 %

Figure 18. Spread. Own creation based on annual reports 2019-2013.

4.7.2 FINANCIAL GEARING (FINGEAR): NIBD / BV EQUITY

The estimate's objective is to determinate Norwegian's amount of equity (book value) relative to net interest-bearing debt, thus giving insight into *how* the company finances its overall operations. The firm's NIBD has increased in large proportions compared to its equity, explaining the measure's intensive growth (258%) throughout the research period (20% CAGR). In 2018 the firm peaked in terms of their FINGEAR, partly due to aircraft financing of 24,990 MNOK (NAS_AN, 2018). Through divesting in Bank Norwegian (2200 MNOK) and its Argentinean subsidiary, in addition to selling and restructuring aircraft orders (2200 MNOK) the NIBD grew less than anticipated. Simultaneously, 2019's new injected capital funded via a private placement helped increase the book value of equity, lowering the measure accordingly. The change in NIBD (2019) can partly be ascribed to a private placement for 1100 MNOK in gross proceeds, while issuing a convertible bond with an aggregated purchase price of 1400 MNOK (Norwegian, 2019f). As we can observe in figure 19 Norwegian is highly levered implying increased financial risk, as the company is more susceptible to loan default and becoming insolvent in times of higher interest rates and lower profits. Contrastingly, the last fiscal year indicates a promising development; the company has decreased its FINGEAR by 54%. Keep in mind, the metric is still considered huge, also compared to its peers, thus bringing a significant amount of risk.

FINGEAR	2019	2018	2017	2016	2015	2014	2013
Norwegian	1384 %	2978 %	1955 %	863 %	948 %	969 %	387 %
Ryanair	17 %	16 %	16 %	8 %	-3 %	5 %	10 %
easyJet	12 %	13 %	7 %	9 %	5 %	7 %	-3 %
SAS	341 %	160 %	125 %	210 %	148 %	191 %	357 %

Figure 19. Financial gearing. Own creation based on annual reports 2019-2013.

4.8 ROE (SUB-CONCLUSION)

Norwegian's ROE is high in comparison to its peers, as seen in figure 20. It is *generally* a positive sign as the rate of return to company shareholders increase. However, in Norwegian's case it is high attributed to large *FINGEAR* and cannot be attributed to the somewhat stable spread, or ROIC development. As Norwegian operates with negative profitability, it means the leverage increases the risk of bankruptcy. Although financing in the form of debt may be utilized to increase ROE or expand operations, it is vital to remember that overleveraging will have an unfavorable effect attributed to increased interest payments and heightened default risk.

ROE	2019	2018	2017	2016	2015	2014	2013
Norwegian	61.25 %	-39.26 %	78.61 %	101.98 %	100.30 %	42.70 %	75.05 %
Ryanair	21.05 %	36.06 %	33.24 %	47.86 %	24.33 %	18.00 %	19.89 %
easyJet	16.99 %	13.76 %	13.74 %	18.69 %	30.50 %	26.75 %	23.70 %
SAS	32.44 %	28.21 %	21.41 %	23.75 %	22.35 %	-18.71 %	51.08 %

Figure 20. Return on equity. Own creation based on annual reports 2019-2013.

4.9 LIQUIDITY RISK ANALYSIS

A firm's liquidity is vital to conduct lucrative investments, meet financial obligations, and most importantly; to avoid bankruptcy (Petersen & Plenborg, 2012). In order to analyze Norwegian and its peers' liquidity risk thoroughly, it is decided to separate its risk into short-term and long-term.

4.9.1 SHORT-TERM LIQUIDITY RISK

To analyze the firms' short-term liquidity the current ratio will be utilized, the measure was chosen as it indicates if current assets will be able to finance current liabilities (Petersen & Plenborg, 2012).

$$\textbf{\textit{Current ratio}} = \frac{Current\ Assets}{Current\ Liabilities}$$

One can clearly recognize that Norwegian possesses the worst short-term liquidity among the peer group during the research period, which also is reflected in that its peers all have better credit ratings than Norwegian (see section 6.1.4). Ryanair is the company best covered in the short-term, followed by easyJet as seen in figure 21. The general trend is a negative development, whereas Norwegian is the only company that improved its short-term liquidity risk recently, by almost 20%. This can be ascribed to many reasons; one being Norwegian restructured aircraft orders in 2019 and 2020, resulting in reduction of capital commitments of 2200 MNOK. Simultaneously, Norwegian reached their target of 2300 MNOK in cost reductions through #Focus2019 (Norwegian, 2019f). The current ratio does not have a recommended level as it depends on which industry it regards, and it should be assessed against competitors (Petersen & Plenborg, 2012). The optimal level is lower in the airline industry, as a result of slim inventories in comparison to other sectors. Having a too high current ratio may also not be beneficial for businesses, as it implies a firm keeps an excess

of cash, inventory and receivables relative to company sales, which could be utilized for profitable investments. This is however not the case for Norwegian as its risk is higher than all of its competitors.

Moving on, we can see that Norwegian has positively development in year 2019, attributed to its current restructuring. On the contrary, a current ratio of 0.6 may indicate high risk in regard to its short-term liquidity. However, subtracting air traffic settlements, a big component of Norwegian's current liabilities improves the measure by 15-30% annually making the risk seem less critical. The accounting item is attributed to credit card providers withholding payments until the flights are conducted, as a result of high credit risk (NAS_Q4, 2019). These liabilities are prepaid tickets, implying there is no requirement for cash, like for current debt. Although better, it is concluded with that Norwegian displays a high risk regarding its short-term liquidity, also in comparison to its peers, with a positive development in 2019.

Current ratio	2019	2018	2017	2016	2015	2014	2013
Norwegian	60.80 %	42.64 %	56.07 %	43.20 %	47.60 %	45.22 %	74.02 %
Ryanair	92.86 %	122.74 %	156.26 %	143.09 %	171.61 %	151.43 %	196.87 %
easyJet	79.42 %	97.04 %	103.83 %	92.43 %	72.34 %	88.80 %	105.00 %
SAS	77.61 %	87.61 %	81.29 %	78.18 %	86.10 %	78.62 %	61.23 %

Figure 21. Current ratio. Own creation based on annual reports 2019-2013.

4.9.2 LONG-TERM LIQUIDITY RISK

A valuable measure for the long-term liquidity risk is the solvency ratio, where a higher ratio implies better liquidity. It reveals a company's ability to meet debt obligations, both short and long-term.

$$\textbf{\textit{Solvency ratio}} = \frac{Equity\ (Market\ Value)}{Equity\ (Market\ Value) + Liabilities}$$

As the peer group and Norwegian are all listed companies on the stock exchange, their market value will be utilized as each company's equity values, argued with that it resembles a closer value to realizable equity (Petersen & Plenborg, 2012). Norwegian's book value is however the lowest among the peers, about 10% lower than SAS, meaning investors and speculators value Norwegian's equity at a higher percent compared to book value, than at SAS. Just as regarding the short-term liquidity, easyJet and Ryanair has the superior solvency ratio. However, none of the airlines displays an extremely decent solvency ratio as the aviation industry is known for its low profitability and high capital-intensiveness, as each company has to finance its aircrafts. The reason for Norwegian's declining solvency ratio is a combination of increased liabilities due to funding, and a declining stock price partly attributed to Norwegian's bad short-term liquidity and negative net profit. The long-term liquidity could have been worse if Norwegian din not sell aircrafts. Although not directly shown through its market value, Norwegian raising new capital (27.25 million shares worth roughly 1000 NOK) in 2019 is helping its long-term liquidity risk and considered by investors. Norwegian shows positive signs in regard to lowering the probability of liquidation by slashing CAPEX by around 200M USD.

Furthermore, entering a joint venture with China Construction Bank Leasing International Corporation thus shrinking capital commitments by 13700 MNOK in the time period 2020-2023, is also beneficial for future company liquidity (Norwegian, 2019f).

As can be seen in figure 22, Norwegian has a higher solvency ratio than SAS, but it is lower than the other peers, explained by that SAS has higher liabilities compared to its market value of equity than Norwegian. Lastly, it can be observed that Norwegian's long-term liquidity, on average, has been declining from 2014 until now.

Solvency ratio (Market Value)	2019	2018	2017	2016	2015	2014	2013
Norwegian	43.48 %	48.29 %	45.41 %	57.60 %	58.57 %	64.14 %	10.44 %
Ryanair	65.94 %	70.36 %	70.04 %	70.00 %	64.16 %	65.28 %	59.19 %
easyJet	47.71 %	60.45 %	68.32 %	70.90 %	69.20 %	68.09 %	65.12 %
SAS	23.85 %	26.35 %	27.33 %	20.73 %	7.33 %	6.90 %	28.83 %

Figure 22. Solvency ratio. Own creation based on annual reports 2019-2013.

4.10 LIQUIDITY RISK (SUB-CONCLUSION)

With the shift in strategy Norwegian decreased its capital commitments and took action to improve its liquidity, presumably attributed to concerns of bankruptcy or high financial risk. Newly raised capital through a private placement and an extension of two years for its unsecured bonds from original maturity date are positive signs (Norwegian, 2019f). Although the firm cannot display the best liquidity in the aircraft industry as of now the recent development is positive. In other words, the future of Norwegian looks brighter, but still involves financial risk as shown through the current ratio. However, if unforeseen events such as a terrorism attack or a pandemic were to occur Norwegian will definitely be prone to insolvency as Norwegian still cannot present strong liquidity to sustain prolonged negative profit environments. To conclude, its recent development is seen as positive.

4.11 FINANCIAL ANALYSIS (CONCLUSION)

In this chapter historical performance and profitability has been benchmarked against Norwegian's peers. It can be observed that Norwegian obtains the worst profitability in the industry, although not to its shareholders a result of high FINGEAR, implying high default risk. Norwegian's profit margin and turnover rate of IC is the lowest among its peers, resulting in the lowest (and often negative) ROIC as invested capital increased depreciations and intense growth raised OPEX. The capacity cuts in 2019 are positive moves for Norwegian's financial profile. Based on these cuts and with previous findings in mind, it is reasoned for that Norwegian was completing their growth phase during the research period. Furthermore, Norwegian presents a high WACC, due to their perceived credit risk and high leverage. The company's high WACC and low return on invested capital resulted in that Norwegian did not create abnormal profits. Lastly, Norwegian displays a concerning liquidity as it is rather limited, both short and long-term. Their liabilities are high,

meaning Norwegian could face problems meeting debt obligations in recessions or tough times. Contrarily, its liquidity is however improving, due to measures taken to carry out their shift in strategy.

5. FORECASTING

Forecasting utilizes information from the research period to estimate a company's financial outlook (Petersen & Plenborg, 2012). Both the financial and strategic analysis will be thoroughly analyzed in order to provide correct estimates regarding Norwegian's value driver's performance. These factors and the reformulated financial statements (see 4.2) will be important for the creation of pro forma financial statements (appendix 6). As a consequence of Norwegian's shift in strategy some accounting items' growth will be forecasted based on expected performance, while for other items historical results continues to be a good indicator for future development. Modeling a forecast for a company conducting a turnaround such as Norwegian is challenging, although it is believed to be reasonably accurate taking the paper's assumptions into account. Lastly, the forecast is mostly modeled after a sales-driven approach, argued with that it provides a better relationship between activity and expenditures level (Petersen & Plenborg, 2012).

5.1 EXPLICIT FORECASTING PERIOD

Choosing an accurate forecasting period is important in order to estimate correct future cash flows. It is decided given the company-stage the firm currently operates in, industry conditions and the time horizon until it reaches its steady state. Petersen and Plenborg (2012) recommend an explicit forecasting period of between 5-10 fiscal years for company valuations. Recently Norwegian experienced stagnation in growth of OPEX and revenue and sold aircrafts, indicating the firm is about to leave its growth period. Simultaneously, Norwegian earlier announced a change in strategy from growth to profitability. These are all arguments for that Norwegian has reached a new mature company stage in the analyst's opinion, indicating the utilization of a shorter explicit forecasting horizon. It can also be pointed out that aviation fuel prices greatly affect industry profitability; this cost item is harder to predict the longer the explicit forecasting horizon lasts, meaning a shorter horizon is beneficial. The airline industry is also uncertain industry, due to limited liquidity, low profitability and being extra exposed to market conditions like the fuel price. These circumstances are making it harder to predict the future performance in detail, the further away from the date of the valuation. Therefore, after meticulous assessment of Norwegian's past and taking mentioned factors into account it is concluded to use a 5 year explicit forecasting period.

5.2 FORECAST OF THE INCOME STATEMENT

The income statement is forecasted based upon previous analysis in addition to Norwegian's own projections where the near future is elaborated on more in-depth, a result of increased uncertainty as time passes. Furthermore, the company's pro forma income statement is attached in appendix 6.

5.2.1 REVENUE GROWTH DRIVERS

Norwegian's net sales will be forecasted based on yield and the load factor, however to find the load factor ASK will be projected. As stated in section 3.3.1, the load factor and yield are essential operational drivers affecting earnings, thus affected by ASK. They are thought to be the optimal revenue growth drivers as a result of revealing total capacity, how effective the company utilizes it and taking profit margin for airfares and other services into the equation. These drivers will therefore subsequently be used to project its future development.

5.2.1.1 ASK

ASK is the airlines total capacity; it relies on flight distance and the number of available seats in each vehicle. Future projection will be impacted by Norwegian's delayed aircraft deliveries, which the analyst assumes will to be canceled due to the CEO stating they could soon be disregarded at the FY2020 briefing. Boeing has postponed the delivery attributed to technical problems. These problems lack signs of progress as the timeline for completion has been extended several times, in addition several new problems were found that needs to be corrected before the MAX can be utilized for passenger transport again (Gelles, 2019). These are the only airplanes Norwegian are obliged to purchase. Therefore, since the firm has not announced additional purchases or leases of aircrafts, it sold 24 of airplanes in 2019, changed strategic intent and currently suffers from liquidity problems; the analyst concludes with that no further airplane lease or purchase will be conducted. Therefore the number of available seats will remain stagnant. The metric then solely depends on flight distance. Norwegian is expanding their long haul operations meaning ASK is projected to slowly increase, as the grounded Boeing 737 MAX (long haul aircrafts) resume operations. Norwegian guides with a downscaling of production amounting to 13-15 percent for their operations in 2019, which is taken into account regarding future development. This is also attributed to, again, an adjustment in strategy meaning an optimized route portfolio instead of expanding the route network, 737 MAX groundings and an issue with Dreamliner engines (NAS_Q4, 2019). This is regarded as a realistic estimate; thus a 14% decrease is projected. The analyst hypothesize their capacity will increase slowly after 2020, as the aircraft issues gradually disappear and they can operate all aircrafts. This entails an increase in Norwegian's maximum capacity leading to a 12 % organic growth in 2021; this growth then decreases slowly, as they optimize their route network.

5.2.1.2 YIELD, LOAD FACTOR & RASK

With the expected ASK in mind, it is also essential to discover the corresponding yield and load factor. As Norwegian optimizes its flight paths through terminating weaker routes, thus focuses on more lucrative departures; in addition, stagnating company growth it will eventually lead to a gradually increased load factor attributed to ASK development. Simultaneously, the company will display better yields as the firm will restructure the route network, therefore focusing on more profitable routes. This should limit revenue

decrease, a result of higher unit revenue. Yield is also expected to increase on the short-term, as a consequence of capacity declines (NAS_Q4, 2019). Long-term the demand for air travel is expected to increase attributed to favorable demographic trends and climate awareness does not seem to influence it (see PESTEL-analysis). Contrarily, as we saw in P5F that the industry rivalry is quite harsh in the airline industry and with ticket aggregators the price level most often is the determining factor when purchasing a flight ticket not differentiation therefore limiting future profit margins. Nevertheless, it is projected that certain customers when Norwegian's routes mature will be more inclined towards flying with them, partly due to Norwegian Reward. As a result it is projected that yields will not increase drastically, this is supported by that as Norwegian as an LCC realistically will operate with a higher load factor instead of higher yields. All in all, the heightened load factor and yield will result in a higher RASK (Revenue per ASK).

$$\boldsymbol{RASK} = Load\ Factor \times Yield$$

5.2.1.3 TOTAL REVENUE

To find the net sales the expected RASK is multiplied with future ASK. Revenues are set to decline in 2020 according to guidance gathered from the company itself (NAS_Q4, 2019). It is expected to shrink in the short-term, however in the long run the accounting item is set to increase, primarily originating from five reasons: (1) strategic choices, (2) the restructuring of the route network and maturing routes (3) a more favorable business environment with positive GDP growth prospects (4) solving the Boeing 737 Max headache and (5) Dreamliner engine problem. The heightened unit revenues are set to provide Norwegian with profits.

There are uncertainties here as Brexit could impact revenue, but Norwegian states that it has contingencies for every plausible scenario leading the analyst to think that its impact (if any) will be on a smaller scale. The revenue is projected in accordance with Norwegian's guidance, implying heightened unit revenue and a slowdown in growth (NAS_Q4, 2019). Its increase can be observed in figure 23, leading to a CAGR of 5% which is within range of what is expected from a company experiencing a more mature growth period.

MNOK	2020E	2021E	2022E	2023E	2024E
Growth	1.50 %	1.00 %	0.50 %	0.25 %	0.25 %
Yield	0.50	0.51	0.51	0.51	0.51
Growth	0.50 %	0.50 %	0.50 %	0.25 %	0.25 %
RASK	0.44	0.45	0.46	0.46	0.46
ASK	86.03	92.91	98.48	102.42	106.52
Growth	-14 %	8 %	6 %	4 %	4 %
Revenue	**38185**	**41860**	**44817**	**46843**	**48961**

Figure 23. Revenue forecast. Own creation.

5.2.1.4 PASSENGER TRANSPORT, ANCILLARY REVENUES & OTHER REVENUES

Ancillary revenues regard services and goods differing from the airfare. When analyzing the correlation between total revenue and ancillary revenue's past performance, it is discovered that they correlate by 0.99%. Other revenues include revenue from cargo, 3rd-party products and the loyalty program; this revenue stream correlates 0.95% with overall revenue. The trend is therefore that the accounting items follow the development of net sales. It is logical that ancillary revenues and cargo is dependent on total revenue as it is affected by passenger revenue. Increased passenger revenue partly originates from more customers or increased travel time, which will result in additional sales of supplementary products and cargo/loyalty program. As a result of the findings, the approach adopted to estimate each revenue stream's future value is to multiply their respective percentage of total revenue in 2019 with total revenues in the explicit forecasting horizon.

MNOK	2020E	2021E	2022E	2023E	2024E
Passenger Transport	29879	34573	36828	38290	40021
Ancillary Revenue	6652	5836	6398	6849	7159
Other Revenue	1654	1451	1591	1703	1780
Total revenue	38185	41860	44817	46843	48961
Growth per year	-12.26 %	9.63 %	7.06 %	4.52 %	4.52 %

Figure 24. Ancillary revenue, other revenue & total revenue development. Own creation.

5.2.1.5 TERMINAL GROWTH RATE

Sustaining a higher growth rate will yield increasing hardships as time passes. Currently Norwegian demonstrates this by already scaling down its expansion. At one point in the future it is going to mirror, or grow less than the economic growth in the markets it conducts business. Norwegian is an international company, operating across the globe; therefore it is decided to utilize the company's market share (excluding Argentina, a result of divesture) multiplied with expected GDP in corresponding markets it operates in per 2019 (see figure 25). Only numbers from 2019 will be used as Norwegian has expanded rapidly, which entails older market share percentages will be less representative. This is seen as a more accurate representation of Norwegian's perpetuity growth rate, instead of using the global GDP growth, as there are market in which Norwegian does not operate (Africa, Oceania and most of Asia), and there are geographical areas where Norwegian is more engaged. The IMF database (2019) has been utilized to collect the according GDP growth rates in Norwegian's markets, and the terminal growth rate equals 1.59%.

Operations:	Sales 2019	Market Share	Expected GDP Growth Rate
Norway	8644	20 %	1.70 %
US	8313	19 %	1.60 %
Spain	6005	14 %	1.60 %
UK	4458	10 %	1.50 %
Sweden	3430	8 %	2.00 %
Denmark	2977	7 %	1.50 %
France	1949	4 %	1.40 %
Italy	1214	3 %	0.60 %
Finland	1206	3 %	1.30 %
Others (European GDP)	5326	12 %	1.60 %
Total	43522	100 %	1.59 %

Terminal Growth Rate	**1.59 %**

Figure 25. Norwegian's terminal growth rate. Own creation based on IMF and Norwegian's annual report 2018.

5.2.2 COST DRIVERS/MARGINS

The great trend is a focus on cost management, as Norwegian changed its strategic objective, and it is projected to last. Norwegian is through #Focus2019 cutting costs where it can, in order to fulfill its goal of attaining profitability, as opposed to expanding operations. The development of some of the company's cost items will however decline more slowly, a result of being a fixed or semi-fixed cost item. Each item will be forecasted as a percentage of revenue, except aviation fuel which will be based on ASK as the maximum capacity is a more accurate factor for its development, in the writer's opinion.

- **Aviation Fuel:** OPEX's largest cost item and to a great extent dependent on oil prices as discovered in the PESTEL-analysis, these are affected by many factors. As Norwegian is expected to not purchase any additional aircrafts its current air fleet will remain, meaning the fuel cost will not change due to air fleet composition. The item's development is computed as a percent of ASK, as it depends on maximum capacity, a result of being a variable cost. A regression of the last 5 years of oil and jet fuel prices with data collected from Index Mundi (2019) (see appendix 7) was conducted in order to estimate the explicit forecasting period's jet fuel expenses. As mentioned in the PESTEL-analysis lower oil prices are expected, attributed to increased market supply. They are therefore expected to decrease to 60 USD and stay relatively stable out 2021 according to EIA (2019), corresponding to a future jet fuel price of 72.46 USD per barrel.

$$\boldsymbol{Jet\ Fuel\ Price} = 2.675 + Oil\ Price\ (60\ USD) * 1.163$$

If we presume the conversion rate will stay at the level of that 31.12.2019, 72.46 USD yield 636.92 NOK per barrel. Norwegian's aviation fuel consumption for 2019 (17018.4 barrels) is then multiplied with the barrel price, and thereafter divided by total ASK to find the fuel/ASK ratio

(NAS_Q4). The annual fuel price is then found by multiplying the fuel cost per ASK ratio with total ASK. Oil prices and currency rates are assumed to remain constant throughout the explicit forecasting period, as their changes are too complicated to account for. It is an unlikely event as both currency rates and oil prices are known to fluctuate based on economic conditions. As both oil and currency rates are stagnant and the aircraft fleet will not be changed, 2019's reported fuel cost of 0.13 NOK per ASK is presumed to be applicable during the forecasting period. The sensitivity of this underlying factor will be measured later in the sensitivity analysis.

MNOK	2020E	2021E	2022E	2023E	2024E
ASK	86.03	92.91	98.48	102.42	106.52
Price (Per Barrel) NOK	636.92	636.92	636.92	636.92	636.92
Barrels of Oil	17018.4	18379.87	19482.664	20261.97	21072.45
Fuel Cost per ASK	0.126	0.126	0.126	0.126	0.126
Fuel Cost	10839.4	11706.51	12408.898	12905.25	13421.46

Figure 26. Norwegian's future fuel expenditure. Own creation.

- **Airport and ATC Charges & Handling Charges:** Airport charges are fees paid to each facility in order to utilize their services and gates. As mentioned in the strategic analysis, it was discovered that many airports operate as local monopolies. Norwegian is, as mentioned earlier, not going to expand its operations intensively like in the past, implying a slower development in this cost item. In the future it is anticipated that EU will regulate airports decreasing their monopoly profits accordingly as predicted in the PESTEL-analysis (Biering, 2018). This brings the analyst to anticipate future cost reductions, which can be seen below in figure 27. A decline in costs are also set to apply for Norwegian's handling charges, which is thought to be renegotiated over time in the mid period, as Norwegian has already done this with airport and ATC vendors. These costs can easily be adjusted as they are variable costs, dependent on total amount of flights.

Percent of revenue	2020E	2021E	2022E	2023E	2024E
Airport and ATC charges	9.5 %	9.5 %	9.0 %	8.5 %	8.0 %
Handling Charges	12.0 %	12.0 %	11.0 %	10.5 %	10.0 %

Figure 27. Airport and ATC Charges & Handling Charges. Own creation.

- **Payroll and other personnel expenses:** Norwegian is focused more than ever on cost cutting, implementing its #Focus2019. There is however sought to be a slight increase in this accounting item as a percentage of revenue as it is a semi-fixed cost (see figure 28). This results in an increased unit cost (excluding fuel) when Norwegian lowers their capacity, which gradually decreases as Norwegian attains an optimal level in regard to shrinking, as headcount can be trimmed. This is one of the negative effects of scaling down operations.

Percent of revenue	2019	2020E	2021E	2022E	2023E	2024E
Payroll and other personnel expenses	15.7 %	17.0 %	17.0 %	16.0 %	15.0 %	14.0 %

Figure 28. Payroll and other personnel expenses. Own creation.

- **Other OPEX expenses:** Technical maintenance expenses will be calculated from same percentage of revenue as in 2019. Norwegian is utilizing the same air fleet, and their expenses depend mostly on usage. Other operating expenses consist of administrative expenses e.g. marketing, distribution expenses. Attributed to company downscaling it is set to increase as a percentage of revenue in 2019 (11.1% to 11.5%) and then gradually decrease due to #Focus2019. Meaning unit costs are set to increase in the short-term, thereafter gradually decrease due to cost management. Loss (profit) from associated companies is seen as a miniscule post and will consist of 0.0% of revenues as it is hard to predict and was accounting for under 0.5% of net sales in the research period annually. Norwegian just sold its shares in Bank Norwegian implying even lower values. The company has put a restructuring in motion, aiming for reduced costs. Over time this means it will cut their expenses where necessary to provide a positive result. The exact development for each cost item as a percentage of revenue can be seen below in figure 29. As for the terminal period, the cost drivers and revenue driver are thought establish an EBIDA-margin of 25.8%.

Percent of revenue	2020E	2021E	2022E	2023E	2024E
Other operating expenses	11.5 %	10.5 %	9.5 %	9.0 %	8.0 %
Loss (profit) from associated companies	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Technical maintenance expenses	8.0 %	8.0 %	8.0 %	8.0 %	8.0 %

Figure 29. Development of remaining cost drivers. Own creation

5.2.3 DEPRECIATION & AMORTIZATION (PERCENTAGE OF TANGIBLE ASSETS)

According to academic literature depreciations and amortizations should be estimated based on a percentage of tangible and intangible assets. The accounting item's development is seen in connection with PPE and intangible assets, meaning mostly aircrafts in Norwegian's case (Petersen & Plenborg, 2012). Last year Norwegian experienced heightened depreciation, partly as a result of unfavorable currency effects (NAS_Q4, 2019). As the FX rates show little sign of improving and Norwegian show no sign of shrinking air fleet or further aircraft acquisitions the depreciations and amortizations are set at 9% of intangible and tangible assets throughout the forecasting period, marking a 0.5% decrease from 2019.

5.2.4 CORPORATE TAX RATE

Norway's marginal tax rate is set at 22% and has been declining in the historical period (PWC, 2019). There is uncertainty regarding if the percentage is going to decline any further, or diverge in other ways. It is therefore decided to utilize the current corporate tax rate for the forecast.

5.3 FORECAST OF THE BALANCE SHEET

The pro forma balance sheet is attached in appendix 6.

5.3.1 INVESTMENT DRIVERS

5.3.1.1 TANGIBLE ASSETS & INTANGIBLE ASSETS

Tangible assets increased throughout the historical period, mainly due to investments in aircrafts to support their expanding operations. The accounting item projected to decrease gradually (as a percentage of revenue) attributed to depreciated assets and no further purchase/leases of aircrafts. It is therefore somewhat stabilized around current values. A continuation of its development from the historical period is seen as highly unlikely. Norwegian is cutting in its growth, focusing on its profitability and has implemented their cost cutting program. As a result further purchase of aircrafts is put on hold and tangible assets consist primarily of aircrafts or aircraft related assets. This cuts Norwegian's potential future CAPEX, insinuating a declining development. Remaining assets, mainly buildings and equipment are assumed to remain stagnant. This is attributed to the writer's presumption of that Norwegian will not conduct noticeably expansion of future operations, and the company not stating otherwise in their public documents. Norwegian sold 12 Boeing 800-737's in 2019, signaling that Norwegian does not want to increase its air fleet (NAS_Q4, 2019). Therefore, as a consequence of that most of Norwegian's tangible assets are aircraft related and its air fleet is assume to remain unaltered, these assets are set to stabilize around current value and decrease slowly as a percentage of net sales.

Intangible assets are expected to grow in line with that of the research period, as they have increased gradually. Earlier research did not signal additional acquisitions, this seems sensible taking Norwegian's current financial situation into account. The last two years reveals a growth-stagnation for the accounting item in question, where it even declined in value from 2018 to 2019. On the basis of these findings intangible assets are expected to have stagnated around its current value.

Percent of revenue	2020E	2021E	2022E	2023E	2024E
Intangible & Tangible Assets	150 %	144 %	140 %	135 %	130 %

Figure 30. Intangible & tangible assets. Own creation.

5.3.1.2 NET WORKING CAPITAL (NWC)

Net working capital has been decreasing up until 2018, a consequence of investments conducted in order to support expansion and credit card providers withholding revenues (NAS_Q4, 2019). The accounting item then increased in 2019, due to actions taken to improve short-term liquidity when the firm shifted its focus from growth to profitability. It is thought that NWC continues this development attributed to:

→ Higher earnings could imply higher trade receivables.

→ Norwegian is working on a deal with a big credit card provider in order to free up net working capital, which lowers air traffic settlements (NAS_Q4, 2019). Norwegian is currently experiencing a detriment as credit card providers are withholding revenues until aircrafts have conducted their departures, a side-effect from Norwegian's perceived credit risk.

→ Continuation of Norwegian projected slow-down of expansion. This means a gradual increase of working capital of net sales each year, mostly affected by a decrease of current liabilities in relation to current assets, leading to a gradual increase of the accounting item, which also implies increased short-term liquidity.

Below in figure 31 its forecasted development can be inspected.

NWC	2019	2020E	2021E	2022E	2023E	2024E
Current Assets	11794	10347	12140	13445	14053	15178
Percentage of Revenue	27.1 %	27 %	29 %	30 %	30 %	31 %
Current Liabilities	19840	17407	18000	18823	19206	19584
Percentage of Revenue	45.6 %	46 %	43 %	42 %	41 %	40 %
Net Working Capital	-8047	-7060	-5860	-5378	-5153	-4406
Change in NWC	4259	-987	-1200	-482	-225	-746

Figure 31. NWC forecast. Own creation.

5.3.2 FINANCING DRIVERS

5.3.2.1 NIBD

Norwegian's NIBD is computed as a percentage of invested capital, where the firm's capital structure is further elaborated on about in section 6.1.1 and is presumed to be constant. Norwegian has given no indications that they aim to lower their financial gearing in any public statements and the firm just recapitalized in 2019; simultaneously the capital structure of a company usually is somewhat stabilized. Norwegian currently has a high NIBD, originating from investments supporting their former aggressive growth period. It can be argued for that Norwegian may conduct a rebalancing of capital to lower leverage, in order to reduce financial risk. The analyst has however not found documents supporting a future recapitalization or restructuring. Therefore it is assumed that equity (7%) and net interest-bearing debt (93%) will stay at current percentages of total funding.

5.3.2.2 NET FINANCIAL EXPENSES – COST OF DEBT

Norwegian's net financial expenses are projected to follow the current rate (2019) and amount to -2.95% of net interest-bearing debt. The rate of growth is expected to be stagnant in the forecast as Norwegian's capital structure will remain constant.

5.4 PRO FORMA CASH FLOW STATEMENT

Norwegian's pro forma cash flow statement is attached below in figure 32; it relies on the pro forma income statement and pro forma balance sheet for the explicit forecasting period.

Pro Forma Cash Flow Statement	2020E	2021E	2022E	2023E	2024E	2025T
NOPAT	34	677	2172	3398	4922	5519
Depreciation and Amortization	5155	5425	5647	5691	5728	5730
Change in Net Working Capital	-987	-1200	-482	-225	-746	-925
Investments, Intangible and Tangible Assets	6817	-8427	-8112	-6186	-6139	-5747
Free Cash Flow to the Firm (FCFF)	**11019**	**-3524**	**-776**	**2678**	**3764**	**4577**
Changes in NIBD	-10245	3918	2748	671	1079	878
Net Financial Expenses After Tax	-1078	-1168	-1231	-1247	-1272	-1292
Free Cash Flow to Equity (FCFE)	**-304**	**-774**	**742**	**2103**	**3572**	**4164**
Dividends	304	774	-742	-2103	-3572	-4164
Cash Surplus	0	0	0	0	0	0

Figure 32. Pro forma Cash flow statement. Own creation.

5.4.1 DIVIDENDS

Norwegian's Cash surplus will be paid out to company shareholders in the form of dividends, contrastingly negative earnings entail that shareholders will fund the required amount of NOK to preserve the set capital structure.

5.5 CONTROL

If the forecast's estimated financial results deviate radically from historical performance, there has to be underlying reasons and strong argumentation supporting the development (Petersen & Plenborg, 2012). In that regard, the analyst will meticulously evaluate said performance through assessment of the NOPAT-margin, the turnover rate of invested capital and ROIC. The latter will be evaluated after taxes to provide a full picture of profitability (thus including tax payments).

As one can observe in figure 33, ROIC's development (on the basis of profit margin and turnover rate of IC) is slightly increasing throughout the forecast. It is thought that Norwegian will reach a new stage in its life-cycle bringing a turnaround regarding its profitability, originating partly from future increased unit revenues compared to unit costs. These moves can already be observed in 2019 and its quarters, attributed to a shift in strategy. In the historical period, Norwegian neglected their profitability as they were chasing rapid growth. However, it seems that they aim to slow down their expansion, conducting the necessary cost cuts entailing the company to reap the rewards from earlier investments. In the analyst's opinion its forecasted development is justified and valid on the basis of all of the changes going on within the company, derived from its leadership, route network, balance sheet and more. As found in the strategical analysis there is no internal resources giving it a sustained competitive advantage, therefore suggesting Norwegian will not attain

above industry average ROIC, the estimated future ROIC is in line with these findings. Its performance is found realistic as the average ROIC (pre-tax) was between 23.5% and 12.1% in the research period. After taking taxes into account the estimated ROIC is still found sensible in the writer's opinion. However, there are several risks involved, primarily from the micro and macro environment.

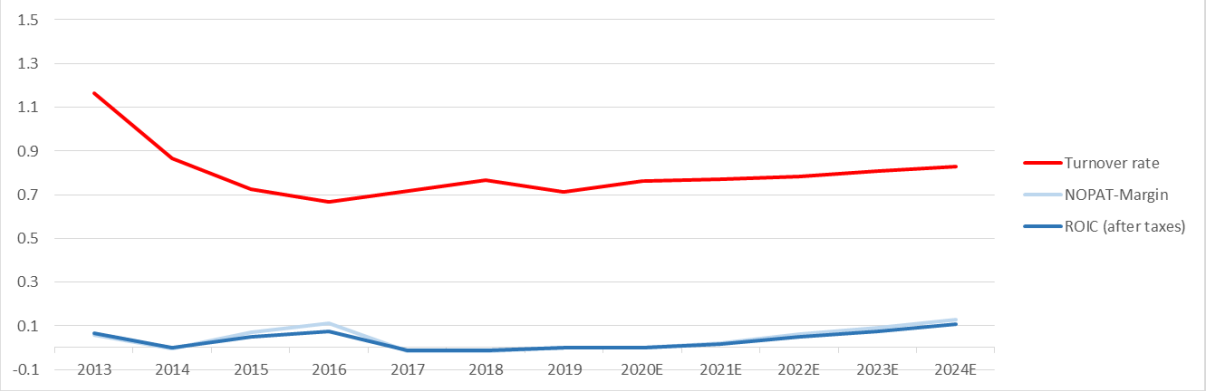

Figure 33. Control. Own creation.

6. COST OF CAPITAL

The chapter will explain the process of estimating Norwegian's future cost of capital (WACC), by breaking the metric down into its respective components and thereafter determining them, one by one. WACC will be utilized as the discount rate when calculating the company's fair share price in the present value approaches.

6.1 WACC

Lenders, in addition to investors, who are responsible for financing a company, require a rate of return for their injected capital derived from the firm's financial risk and the lenders repayment order. The WACC metric measures this cost of capital in the DCF and EVA model. This paper has taken the guidelines outlined by Petersen and Plenborg (2012) into account where it is possible. However, in certain instances other approaches have been adopted if seen more appropriate given Norwegian's peculiar situation.

$$\boldsymbol{WACC} = r_E \times \left(\frac{Equity\ MV}{NIBD + Equity\ MV}\right) + r_D \times (1 - t) \times \left(\frac{NIBD}{NIBD + Equity\ MV}\right)$$

In which:

r_e = Cost of equity, r_d = Cost of debt, NIBD = Net interest-bearing debt, t = Corporate tax rate, Equity MV = Market value of equity

In the upcoming paragraphs the capital structure will be discussed, followed by an explanation of the Cost of Equity and the Cost of Debt.

6.1.1 CAPITAL STRUCTURE

The proportion of equity and debt a company utilizes to support its growth and operations as a whole, is defined as a firm's capital structure. The measure's purpose is to estimate the percentage of the two financial resources in question, relative to company asset value. The market values will be utilized as they indicate the actual opportunity cost for an investor (Petersen & Plenborg, 2012). These proportions then provide the weights for the cost of equity and cost of debt has to be multiplied with to calculate at a correct WACC.

As Norwegian does not have a reported market value of debt, the book value of net interest-bearing debt will be utilized, serving as an approximation. According to Koller et al. (2010) this is, in most cases, a close estimate. Contrastingly, the market value of Norwegian's equity will be computed as the number of outstanding shares (roughly 163.6 Million) multiplied with the share price (37.8 NOK) as of the last trading day (Yahoo Finance, n.d.). As Norwegian did not mentioned a target capital structure in any documents and their shift in strategy may implicate that old capital ratios are less representative for the future in Norwegian's scenario, this was found appropriate. One could argue for that an average of the research period would remove fluctuations from occasional short-term increases or decreases in the market, but this is found less relevant attributed to, again, that the company is conducting a shift. Consequently the capital structure will be computed relying solely 2019-values, where figure 34 displays the company's financial resources, a weight of **9,59%** equity and **90,41%** debt respectively.

Norwegian's Capital Structure (NOK)	
MV Equity (MV EQ)	6182506651
Net Interest-Bearing Debt (NIBD)	58282000000
MV EQ / (NIBD + MV EQ)	9.59 %
NIBD / (NIBD + MV EQ)	90.41 %

Figure 34. Norwegian's capital structure (NOK). Own creation based on Yahoo Finance 2019.

6.1.2 COST OF EQUITY

One of the components in the WACC formula is known as the cost of equity. It is defined as the shareholders' required rate of return (Petersen & Plenborg, 2012). Most academic literature, including Petersen and Plenborg (2012), utilize the Capital Asset Pricing Model, or CAPM, to compute the required return of equity. The CAPM's intuition is that only unsystematic risk should be accounted for considering, that each investor may hold the market portfolio that in theory is not subjected to systematic risk. Its formula can be seen below.

$$\boldsymbol{r_E} = rf + \beta_E \times MRP$$

In which:

rf = Risk-free interest rate, β_E = Beta (systematic equity risk) MRP = Market Risk Premium

6.1.2.1 RISK-FREE INTEREST RATE

The initial variable in the CAPM formula is the risk-free interest rate. The ratio reflects a theoretical rate of return for how much an investor can gain from an asset without incurring risk (Petersen & Plenborg, 2012). This is far from possible in a real-world scenario. Academics propose the utilization of a 10- or 30-year government bond when conducting a company valuation. Furthermore, Petersen and Plenborg (2012) argue for that one should utilize the bond denominated in the same currency as the company's cash flows, thus the Norwegian government bond has been applied. The 10-year bond is advantageous to use as it matches underlying cash flows more precisely, whereas 30-year government bond may potentially experience illiquidity influencing its yields (Petersen & Plenborg, 2012). The former will be adopted to estimate the risk-free interest rate. The annual average in 2019 according to Norges Bank (2019) was **1.49%**.

6.1.2.2 B_E (SYSTEMATIC RISK)

The beta estimates the level of systematic risk, or volatility, between firm and market returns. If the β is bigger than 1 it entails that the investment takes on larger risk than the market portfolio. On the other side, if the β is smaller than 1 it implies the stock is less volatile than the market portfolio. A β equivalent to 1 suggests that the market portfolio and the investment hold the same systematic risk. Academic literature suggests conducting a regression analysis on empirical data (appendix 8) (Koller et al., 2010). Assessing the β requires a longer time series of past observations; therefore a regression of the return from the 5 last historical years has been conducted (Petersen & Plenborg, 2012). Utilizing a longer time horizon may estimate an incorrect beta as business models and strategies change over time. Moreover, as weekly and daily observations may bias the information caused by non-trading days, monthly datasets retrieved from Bloomberg (2019b) and Investing.com has been analyzed to pick a relevant benchmark (Damodaran, 2002).

Regarding which market index the company returns should be regressed against, the index where the stock is listed is the optimal standard. Seeing as Oslo Stock Exchange Index (OSEBX) is mostly biased towards the energy industry, this is deemed a disadvantage for this beta regression. This is attributable to Norwegian being an airline, and to the fact that well-diversified indices do not include sector bias. However, it has been deemed inappropriate to use European indices (STOXX 500/MSCI EAFE) and even the S&P 500 index which academic literature recommends for beta calculation in this analysis (Koller et al., 2010). This is a consequence of too high P-values ranging from 10% to 60% when regressed against Norwegian's returns. The OSEBX index has a P-value of 3% which fits under the 5% threshold so that the regressed beta can be accepted as having a significant value. Seeing as the R Square was 0.08, which is relatively low, it implies 8% of Norwegian's monthly returns are explained by the returns of OSEBX. This entails 92% of the risk is systematic, and hence diversifiable. The standard error of the beta is 0.66 for the regressions which is quite

high. Damodaran's research (2002) discovered that if the key metric is over 50% it implies heightened uncertainty as the beta interval can be inside such a wide range, this is a weakness for the analysis. The key metrics for the regression can be observed below. Each dot displays the monthly return of Norwegian stock prices on the x axis, and OSEBX on the y axis. The blue dotted line portrays the OLS (ordinary least squares) corresponding to the datasets.

Regression Statistics	
Raw Beta	1,502796064
Adjusted Beta	1,335197376
R Square	0,081945103
Observations	60
Beta STD	0,660478791
Beta P-value	0,026599346

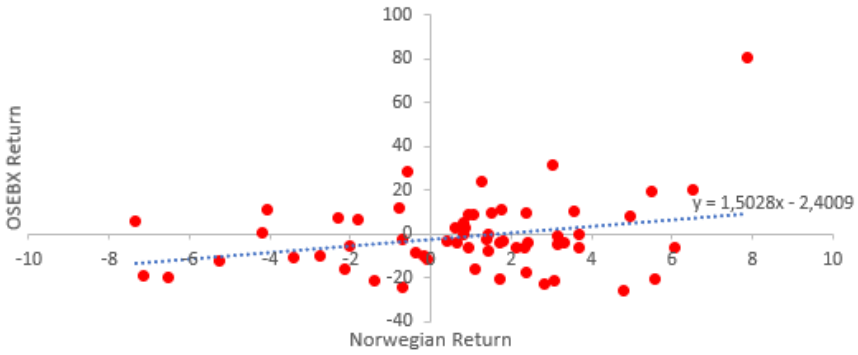

Figure 35. Norwegian's return against the OSEBX index. Own creation based on Bloomberg Terminal.

Furthermore, the beta is adjusted according to the Bloomberg adjustment (Koller et al., 2010). The formula is the following, and the intuition behind it is that the beta reverts back to the market over time according to observations made by Bloomberg. Therefore, it should hence be modified accordingly (Koller et al., 2010). The adjusted beta is estimated to be **1.34**.

$$\boldsymbol{\beta_{Adjusted}} = (\frac{2}{3} \times \beta_{Raw}) + (\frac{1}{3} \times 1)$$

6.1.2.3 THE MARKET RISK PREMIUM (MRP)

The market risk premium comprises of the difference between the risk-free interest rate and market portfolio returns. It implies the rate of return an investor demands to invest in the market portfolio, as opposed to a risk-free portfolio. There is no general formula to estimate the MRP according to the academics (Koller et al. 2010). Petersen and Plenborg (2012) mentioned that the market risk premium can be calculated several ways. However, one solution is to use a proxy which is an average of a large stock exchange index's returns. Damodaran (2019a) has estimated the Norwegian market's MRP to be 5.2% utilizing this method. He specifies that estimating an MRP outside the American market is harder, due to immature financial markets, however correctable by adding a country risk premium (Damodaran 2012). Damodaran has however not added one for the Norwegian market, as the market debt is rated Aaa by Moody (Damodaran, 2019a). On the other side, Fernandez, et al. (2019) concluded with that it is at 6% in from their survey, however due to them reporting their estimate based on only 8 answers or more, it is regarded as less valid. A third option is to utilize PWC's (2019) estimate of the MRP. The firm states in their research report that they their assessment of the MRP results in an estimate of 5%. As a consequence of approximately similar rates for both PWC and

Damodaran's findings and assessment of Fernandez et al.'s findings as less valid, an average of these is utilized as the MRP, which amounts to **5.1%.**

6.1.3 COST OF EQUITY (SUB-CONCLUSION)

$$\boldsymbol{r_e} = rf + mrp * \beta = 1{,}49\% + 5{,}1\% \times 1{,}34 = \mathbf{8{,}32}\%$$

6.1.4 COST OF DEBT

The cost of debt estimates the required return issued by a company's bondholders. It is computed by adding the risk-free rate to the credit spread, a debt risk premium, and then multiplying it with the tax rate subtracted from 100%. It is portrayed in the equation below:

$$\boldsymbol{r_d} = (r_f + r_s) \times (1 - t)$$

In which: r_s: = Credit spread (Debt risk premium), t = corporate tax rate

Two approaches have been utilized to add legitimacy to the findings. Firstly, a credit rating from a rating agency such as Moody's, Fitch Ratings or S&P has been provided, as suggested by Petersen and Plenborg (2012). The rating provided by S&P (2019) is CCC+. Secondly, a synthetic credit rating has been estimated based on S&P's approach utilizing financial ratios, primarily the interest coverage ratio from year 2019 to 2017 (Damodaran, 2019b). Three other condoned ratios have also been computed to add validity to the measure and support the conclusion. This methodology is also recommended by Petersen and Plenborg (2012). These calculations can be found in appendix 9, and the credit rating was CCC. The ratings imply a credit spread (r_s) amounting to 8.2% percent (Damodaran, 2019a). With the formula above in mind this amounts to a Cost of Debt (k_d) of **7.56%.** This is in line with Norwegian's bond yield from Oslo Børs at 7.25% (Oslo Børs, 2019). The exact same approach has been utilized for the peer group to provide cohesion for the thesis.

6.1.4.1 CORPORATE TAX RATE

The purpose of WACC is in this instance is to discount after tax cash flows. Therefore, the measure has to be computed after tax. A Corporate tax rate of **22%** has been utilized, as this is the set corporate tax rate in Norway per 2019 (PWC, 2019). As Norwegian conducts most of its overall operations in this area (see section 5.2.1) and is headquartered there (section 2.2.1), it is seen as the most appropriate tax rate.

6.2 WACC (CONCLUSION)

With previous findings and calculations in mind, a *Weighted Average Cost of Capital* of **7.63%** is found. Figure 36 illustrates the approach utilized to estimate the measure.

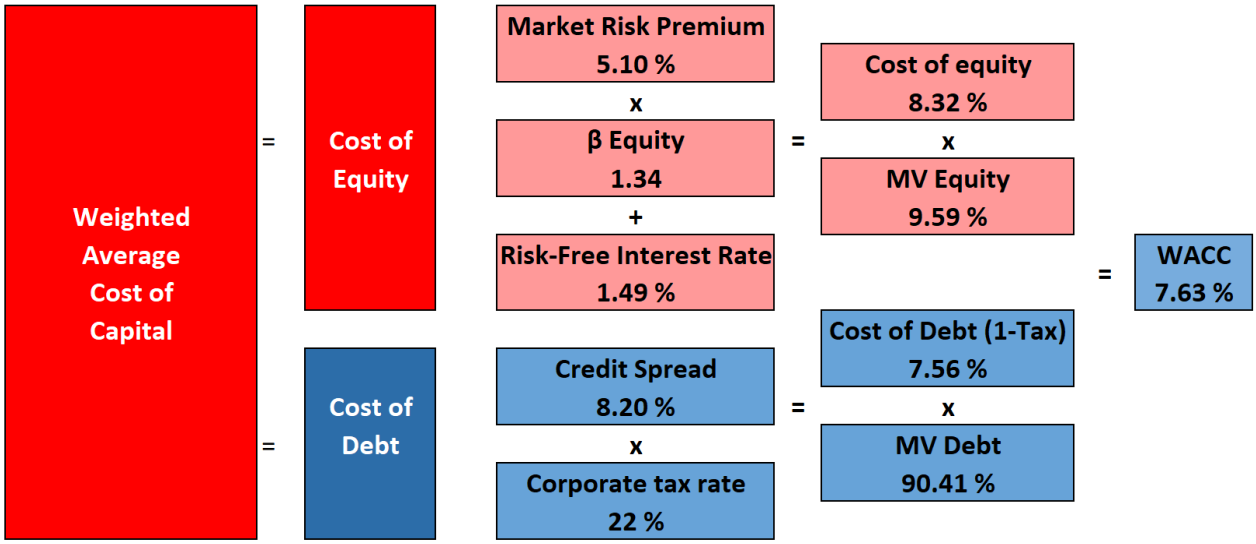

Figure 36. Norwegian's WACC Computation. Own creation.

7. VALUATION APPROACHES

In this chapter the fair share price will be found through DCF and EVA valuation. Thereafter a multiple valuation followed by a sensitivity analysis, which assesses the sensitivity of the share price in relation to changes in underlying factors, were carried out. These assessments were conducted in order to further analyze, ergo strengthen the result from the present value methods.

7.1 PRESENT VALUE METHOD

The present value method estimates the present value of a company, in this paper Norwegian, implying the firm's intrinsic value.

7.1.1 DISCOUNTED CASH FLOW (DCF)

The DCF-model utilizes the forecasted information collected from chapter 5, in addition to the WACC (see 6.2) which is used to discount the future cash flows. The thesis is based on the two-stage DCF model, as recommended in Financial Statement Analysis (Petersen & Plenborg, 2012). The approach consists of two growth stages and its equation can be inspected below. The first part of the equation computes the present value (PV) for the explicit forecasting period, whereas the second part estimates the terminal period's PV (TV) for the year 2025. It assumes TV is equal to all expected FCFF's through the utilization of Gordon's growth model. The approach presumes a constant growth rate (discovered in section 5.2) in terminal period. The formula adopts the enterprise value (EV) method and computes the target price, also known as the fair share price. The enterprise's FCFF's PV is established, presenting the company's fair value (Petersen & Plenborg, 2012).

$$\boldsymbol{Enterprise\ Value_0} = \sum_{t=1}^{n} \frac{FCFF_t}{(1+WACC)^t} + \frac{FCFF_{n+1}}{WACC - g} \times \frac{1}{(1+WACC)^n}$$

In which: FCFF = Free cash flow to the firm, WACC = Weighted average cost of capital, g= growth rate

Norwegian's free cash flow to the firm is estimated with the forecasted pro forma balance sheet and income statement. The model presumes that cash flows are obtained at the closing of the fiscal year, however in practice they are generated year-round. Below, in figure 37 one can observe results gathered from utilizing the model. It computes Norwegian's potential to produce FCFF's in the future. The DCF calculates that 52 452 MNOK (82.4%) is derived from the terminal value, whereas only 11 176 MNOK (17.6%) originates from the explicit forecasting period. Academic literature states that when the bulk of the estimated enterprise value is derived from the TV, it implicates that the majority of shareholder return arises from price appreciation by owning the share until infinity (Damodaran, 2012). It should be noted that the PV coming from the terminal period includes a higher uncertainty, as the future becomes more unpredictable the further one projects it. The analyst does however consider the estimation to be objective, given that Norwegian is in the early stages of generating profitability, meaning it is likely that the majority of EV is attributed to the terminal period. The market value of equity is found by subtracting NIBD from EV. The value is then divided by numbers of shares outstanding (the last trading day in 2019) to find the fair share price for one Norwegian stock per 31/12/2019, which amounts to **40.05 NOK**.

Discounted Cash Flow Model - Enterprise Value	2020E	2021E	2022E	2023E	2024E	2025T
FCFF	11019	-3524	-776	2678	3764	4577
WACC	7.63 %	7.63 %	7.63 %	7.63 %	7.63 %	7.63 %
Discount factor	0.93	0.86	0.80	0.75	0.69	
Present Value FCFF	10237	-3042	-622	1996	2606	
Sum of Present Value FCFF (Explicit forecast)	11176					
Sum of Present Value FCFF (Terminal)	52452					
Enterprise Value (Market Value)	63628					
Net Interest-Bearing Debt, Start of Period	57077					
Market Value Equity	6550					
Outstanding shares	163.6					
Share price (NOK)	**40.05**					

Figure 37. DCF model utilized on Norwegian. Own creation.

7.2 EXCESS RETURN APPROACH

The excess return approach should find the same target price as the DCF-method, but the difference lies in that it utilizes accrual accounting data as opposed to cash flows (Petersen & Plenborg, 2012). This thesis will be finding the share price through the EVA approach as well. This validates that the fair share price found through the DCF did not exhibit computation errors.

7.2.1 ECONOMIC VALUE ADDED (EVA)

The benefit of using an EVA model contra the DCF is that the latter does not evaluate if cash flows at future stages are sufficient to compensate for cost of capital at that and later points in time. This indicates that if investments can be terminated early an EVA approach should be preferred (Pruzhansky, 2013).

$$\boldsymbol{Enterprise\ Value_0} = Invested\ capital_0 + \sum_{t=1}^{n} \frac{EVA_t}{(1+WACC)^t} + \frac{EVA_{n+1}}{WACC - g} \times \frac{1}{(1+WACC)^n}$$

In which: EVA = Economic value added

The approach computes a firm's worth by subtracting a finance charge from its NOPAT, creating EVA and then adds the PV of all EVA's to come with future invested capital (Petersen & Plenborg, 2012). As can be observed in figure 38, Norwegian does not create EVA before the last year of its explicit forecasting period. Lastly, the same target price as found in figure 37 equaling to **40.05 NOK** was estimated (as required).

Economic Value Added model	2020E	2021E	2022E	2023E	2024E	2025T
NOPAT	34	677	2172	3398	4922	5519
Invested Capital, Start of Period	61202	50217	54419	57366	58085	59242
WACC	7.63 %	7.63 %	7.63 %	7.63 %	7.63 %	7.63 %
Cost of Capital	4670.742	3832.417	4153.0337	4377.943	4432.859	4521.158
EVA	-4637	-3155	-1981	-980	489	998
Discount Factor	0.93	0.86	0.80	0.75	0.69	
PV of EVA	-4308.1353	-2723.524	-1589.172	-730.224	338.2997	
Invested Capital (BV), Start of Period	61202					
Sum of PV of EVA (Explicit Forecast)	-9012.7557					
Sum of PV of EVA (Terminal)	11437.987					
Enterprise Value (Market Value)	63628					
Net Interest-Bearing Debt, Start of Period	57077					
Market Value Equity	6550					
Outstanding shares	163.6					
Share Price (NOK)	**40.05**					

Figure 38. EVA Model utilized on Norwegian. Own creation.

7.3 SENSITIVITY ANALYSIS

The writer conducted a sensitivity analysis in order to assess the realistic share price's sensitivity towards alterations of important underlying parameters. These regard both the EVA and DCF valuation, as they both conclude with an identical result. The sensitivity analysis is attached to display how changes in fundamental factors like the cost of capital, fuel cost (per ASK) and the terminal growth rate will affect the valuation. This provides the reader with understanding regarding which target price would be realistic, if the performance were to deviate from the analyst's predictions.

7.3.1 CHANGES IN WACC & FUEL COST PER ASK

The first sensitivity analysis is displayed below in figure 39. On the column, the realistic WACC is altered with 0.9% (positive and negative) in order to produce an optimistic and pessimistic scenario. Contrastingly, on the row fuel cost per ASK is changed by 0.45%, thus creating similar cases for this variable as well. All remaining data is gathered from the forecast (chapter 5) and the EVA model from section 7.2 is applied.

			Fuel Cost per ASK						
			Pessimistic			Realistic			Optimistic
			13.05 %	12.90 %	12.75 %	12.60 %	12.45 %	12.30 %	12.15 %
	Pessimistic	8.53 %	-44.32	-34.24	-24.16	-14.08	-4.00	6.08	16.16
W		8.23 %	-29.33	-18.79	-8.24	2.30	12.84	23.38	33.92
A		7.93 %	-12.88	-1.83	9.21	20.26	31.31	42.35	53.40
C	Realistic	7.63 %	5.24	16.84	28.44	40.05	51.65	63.25	74.86
C		7.33 %	25.29	37.51	49.73	61.95	74.16	86.38	98.60
		7.03 %	47.61	60.51	73.41	86.30	99.20	112.10	125.00
	Optimistic	6.73 %	72.57	86.23	99.89	113.56	127.22	140.88	154.54

Figure 39. Sensitivity analysis inspecting WACC and the Fuel Cost per ASK. Own creation.

The share price varies from 154.54 NOK to -44.32 NOK (implying its worth 0 NOK) in the various scenarios. By decreasing WACC with 0.9% it increases the stock by 183.5%, thus displaying its powerful impact on the share price. Contrarily, a decrease by 0.45% in the fuel cost per ASK shrinks the share price by 86.92%. From this it can be extracted that WACC is the most detrimental factor in this scenario to the stock price of Norwegian.

7.3.2 CHANGES IN WACC & THE TERMINAL GROWTH RATE

Figure 40 visualizes the last conducted sensitivity analysis. It portrays that also the terminal growth rate is an influential factor to Norwegian's stock price, when changed by merely 0.3 percent. Again, cost of capital is also attached in the figure to provide a benchmark.

			Terminal Growth						
			Pessimistic			Realistic			Optimistic
			1.29 %	1.39 %	1.49 %	1.59 %	1.69 %	1.79 %	1.89 %
	Pessimistic	8.53 %	-17.87	-16.64	-15.38	-14.08	-12.74	-11.37	-9.95
W		8.23 %	-2.24	-0.77	0.74	2.30	3.90	5.56	7.27
A		7.93 %	14.83	16.59	18.40	20.26	22.18	24.17	26.22
C	Realistic	7.63 %	33.57	35.66	37.82	40.05	42.35	44.74	47.21
C		7.33 %	54.20	56.70	59.28	61.95	64.71	67.57	70.54
		7.03 %	77.04	80.02	83.11	86.30	89.62	93.07	96.65
	Optimistic	6.73 %	102.45	106.02	109.71	113.56	117.55	121.71	126.04

Figure 40. Sensitivity analysis inspecting WACC and the terminal growth rate. Own creation.

In the optimistic case it increases the share price by 18% to 47.21 NOK, whereas a terminal growth rate of 1.29% entails a share price of 33.57 NOK (pessimistic case), therefore establishing itself as an influential

factor for the valuation. All in all, what can be concluded with from these analyses are that the cost of capital is one of the most influential value drivers for the share price in this valuation, although a change in all underlying factors are impactful.

7.4 RELATIVE VALUATION APPROACH

In addition to the present value methods, a relative valuation approach of Norwegian has also been conducted. The extra valuation approach was performed in order to strengthen the validity of the paper. Multiples utilize the peer firms' key figures to provide a price estimate for Norwegian's share price, although their financial statements are reported in different currencies the result is still valid as they are all divided by their respective currency. The peer group from section 2.3 will continue to serve as peers as they are all public companies, thus providing the metrics needed.

This method of company valuation is often favored among investment bankers and implemented in equity research, attributed to its straightforward and time efficient method of implementation. Norwegian currently has negative EBIT and earnings, which means that multiples including these key financial results will be disregarded as a multiple has to have a positive value. A drawback of this valuation approach is that it in some instances simplifies complicated information and that it reflects short-term data (Petersen & Plenborg, 2012). Data gathered from Damodaran's sector multiples (2019c) have also been collected, although not as representative since it includes companies with different business models or operating in other markets.

There are two types of multiples, equity and enterprise value multiples. Equity based multiples necessitate that the peer group utilizes the same expected growth rate, profitability and cost of equity. The latter requires equal depreciation rates in addition to tax rates among peers. Different accounting standards can also influence the computations. These conditions are not met in this valuation, meaning biased results. However, the multiples will still be carried out as it calculates a consensus estimate and provides an indication of the value of one Norwegian stock (Petersen & Plenborg, 2012).

7.4.1 ENTERPRISE VALUE MULTIPLES

These multiples take the EV into account, divided against sales and EBITDA (earnings before interest, taxes, depreciations and amortization). The enterprise value is found by subtracting cash and cash equivalents from NIBD and the market value of equity (shares outstanding x share price) the last trading day in 2019, gathered from the companies' respective financial statements or Thomson One (2019). The results can be seen in figure 41, and it implies Norwegian is over valued by respectively 103% (EV/EBITDA), 15% (Damodaran's EV/EBITDA) and 22% (EV/Sales) which when taking the average of the three results amounts to **47.67% overvalued**. This infers that the fair share price should equal **20.16 NOK**.

7.4.2 EQUITY MULTIPLES

As its name implies, this valuation approach does not take company debt into the equation. This is thought to be a better method as Norwegian and the other companies in the peer group funds their operations with differing capital structures. This paper aims to utilize the P/S equity multiple, which indicates price to sales ratio; the preferred equity multiple to evaluate after when a company operates with a negative result (Damodaran, 2012). The results can be observed in figure 41. It is important to mention that the peer group operates with different financial gearing which influences the equity multiples, implying bias since Norwegian has leverage is higher than its peers. With this bias an indicative share price of **68.62 NOK** is calculated, implying its **82% undervalued**. The data is collected from Annual reports or as of the last trading day (2019) with Thomson One (2019).

7.4.3 RESULTS

	Market data			Financial data (Million)				Valuation (Enterprise-based)		(Equity-based)
Company Name	Share Price	Market cap (Million)	EV (Million)	Sales	EBITDA	EBIT	Earnings	EV/Sales	EV/EBITDA	P/S
Norwegian	37.8	6183	64480	43521.9	6454.1	-3.4	-1609.1	1.48	9.99	0.14
Ryanair	14.53	16136	16566.4	7697.4	2742.1	899.2	849.8	2.15	6.04	2.10
easyJet	1424.5	4565.5	6575.5	6385	2076.9	1023	885	1.03	3.17	0.72
SAS	15.27	5769.3	8701.3	46736	20895	1268.4	621	0.19	0.42	0.12
Average								1.21	4.90	0.77
Damodaran's sector multiples for air transport								n.a	8.71	n.a

Figure 41. Multiple calculations. Own creation based on Annual reports/Thomson One.

The findings from multiple valuation indicate that the estimated share price hugely depend on which multiple one utilizes to estimate the share price. This and that the premises for multiples mentioned earlier are not met leads the analyst to suggest that multiple valuation does not produce a credible share price, as it depends unreasonably much on which multiple that is applied. An actually comparable firm is needed in order to produce valid results, incomparable firms implies share prices non-representative. The multiples do however strengthen our results for the DCF and EVA model. It shows that the calculated share price from the DCF/EVA valuation is not too extreme in relationship to stock prices from the multiple valuations, implying it is within range for a reasonable share price.

7.5 COMPANY VALUATION (CONCLUSION)

The valuation approaches adopted in this thesis are generally accepted amongst practitioners and academics alike, and thus assessed to be reliable (Damodaran, 2012; Petersen & Plenborg, 2012). Below in figure 42 one can observe the different target prices, derived by utilizing the different valuation methods.

Valuation Approaches	Share price (NOK)
Discounted Cash Flow	40.05
Economic Value Added	40.05
EV-based Multiples	20.16
Equity-based Multiple	68.62
Final Valuation	**40.05**

Figure 42. Norwegian's target price found with different valuation methods. Own creation.

As a result of unattainable assumptions needed to correctly valuate Norwegian through multiples approaches, these outcomes are merely applied as guiding values to support the share price found by both the DCF and EVA valuation. The two multiples reinforce the validity of the fair share price computed by EVA and DCF valuation as Norwegian's final valuation estimate lies in the interval between the multiple prices, implying it is legitimate. Norwegian's estimated fair share price is found to be worth **40.05 NOK** per 31.12.2019, indicating an **upside of 7 percent** from its closing price. A discount given by the actual share price is supported by the average EV-multiple as well.

8. COVID-19

This chapter will analyze and elaborate on relevant implications regarding the COVID-19 crisis, from an airline industry and company's perspective. Thereafter, an assessment and discussion concerning potential scenarios of the pandemic outbreak for Norwegian will be conducted, taking governmental aid in addition to current proposals and market conditions into account. This will provide an investor with knowledge regarding potential upside and downside investment risk in relation to Norwegian's financial outlook; therefore implicate how it would affect the estimated share price found in section 7.5. The analyst dedicated a chapter to this event considering its relevance to Norwegian's stock price. Although the value of one share is found without taking covid-19 into account on the basis of its late outbreak in the writing process, a comment on its effects was considered necessary.

8.1 AIRLINE INDUSTRY

8.1.1 CONSEQUENCES

There is no doubt that the airline industry is suffering as a result of the current ongoing virus outbreak. It is greatly susceptible to external factors as discovered in both the PESTEL-analysis and Porter's 5 forces framework, where also viruses and terrorism attacks and its ramifications were touched upon. There are 2 main influences regarding its impact, namely its widespread and duration. During the last five years the industry displayed positive financial performance, an airline industry growth and an increase in ROIC supports this (Mazareanu, 2020a; IATA, 2019b). However, this is set to change with a sharp decline in demand (14% in February), a direct consequence of SARS-CoV-2 (IATA, 2020b). This will bring

profitability and liquidity problems, mainly resulting from an estimated loss of 250 Billion USD in revenues to the aviation sector (Herper & Young, 2020). In the analyst's opinion this is seen as to mild due to an almost total shutdown of operations in the industry. Other repercussions are the suspension of flights and services by cutting departure frequency, and decreasing cost by temporarily laying off staff or shortening working hours. An example is Norwegian who slashed their flights by 85 percent and laid off 7300 employees (Norwegian, 2020c). The extent and gravity of the crisis entail the grounding of aircrafts as a result of either the lack of demand or legislative factors. The Schengen area has closed its border, in addition to the United States of America - two major markets. This implies a travel ban for connecting flights between the areas and a major decline in potential routes to carry out for the operators, including Norwegian (CAPA, 2020b).

Moreover, the airline industry was established as illiquid and capital-intensive in previous sections. Therefore, it should be addressed that when fleets are grounded it entails a dangerously low reserve of cash. An example of this is Flybe, a British carrier which had to for file for bankrupt per 05.03.2020 (Harper, 2020). Simultaneously, one can observe a general stock price decline among airlines that aggravates the current situation by increasing volatility, which in turn is preventing the carriers from providing profit outlooks for 2020 (Yahoo Finance, 2020). Airlines with low profit margins and huge debt commitments like Norwegian are affected the most severely by this crisis (see section 4), where financial default is likely if no aid is provided.

8.1.2 POTENTIAL MITIGATIONS

The industry needs support in order to mitigate the consequences brought along by the pandemic. That aid could be provided by the state in the form of emergency financial aid, lowering of corporate fees regarding slots, taxes or charges, a governmental bailout, loan guarantees or changes in the regulatory requirements. The European Commission's waived the 80/20 slot regulations within the EU until June 2020, easing the financial burdens. This is attributed to the removal of the requirement by carriers to operate airport slots 80% of the time, leading to a correction in capacity and the hindrance of ghost flights (European Parliament, 2020). Sweden and Denmark are providing 300 MUSD loan guarantee to SAS, whereas the Norwegian government has offered loans with conditions amounting to 6000 MNOK involving three airlines (Reuters, 2020a; Government, 2020). Airline companies have also taken action; carriers have been relinquishing change and cancellation fees to stimulate demand where possible. A potential positive market condition is the current low crude oil price which is the lowest in 20 years (32 USD per 01.03.2020) according to Index Mundi (2020), meaning a significant drop in fuel prices. Unfortunately, the majority of airlines hedge their fuel prices in order to mitigate future fluctuations in unit costs raising the accuracy of the OPEX and liquidity forecast. Moreover, the firms cannot utilize much of the jet fuel as the majority of aircrafts are grounded, meaning its potential remedy could be negligible.

8.1.3 GENERAL CONCLUSION

The impact of SARS-CoV-2 can be compared with the outbreak of SARS in 2003, one of the most serious epidemics with huge ramifications for the airline industry. A decline in RPK by 5.1% compared to pre-SARS numbers sparked uncertainty in the equity market, impacting aviation and the airline segment accordingly (IATA, 2020b). By analyzing the historical effect one can observe that growth only declined for a brief period. The difference being the impact was limited to the Asia Pacific, whereas the current virus outbreak is on a global scale, thus entailing a prolonged recovery. Currently the pandemic is still ongoing with the epicenter shifting from China and Asia towards the west, implying its duration is quite uncertain and may last a year. According to Freed and Shepardson (2020) this could infer a three-year recovery period. Contrarily, its effects may not be that detrimental, China has displayed signs of a slow rebound in domestic airline demand and capacity, meaning its ramifications may only last for some months (Qui & Freed, 2020). Thus, with previous findings and analysis in mind, the general impact on aviation companies from a valuation perspective is certainly negative.

8.2 NORWEGIAN

In addition to impacting on the airline market as a whole, Norwegian is certainly affected. The likelihood for that a firm lacking both profitability and liquidity, while displaying high financial gearing (see financial analysis) is influenced heavier than most of its rivals is certain. This is a consequence of current conditions, which complicate the process of acquiring external funding. Simultaneously, air travel demand is almost non-existing, meaning Norwegian's turnover is at an all-time low; however, fixed costs and interest payments still have to be met, indicating increased risk of financial default. A potential mitigation is that Norwegian currently does not own any fuel forward contracts and the Norwegian government's waive of aviation taxes (NAS_Q4, 2019; Norwegian, 2020a). In a time where low crude oil prices are miniscule, as a result of greatly retracted capacity, lower jet fuel prices could reduce future OPEX.

A report released by CAPA (2020a) defined Norwegian as the most illiquid firm in the European airline industry. Cash flows were estimated to last 26 days of operations (3100 MNOK), meaning Norwegian will only be able to repay their debt and meet obligations for less than a month without measures taken (CAPA, 2020a). Normally an airline company could acquire cash by mortgaging or divesture of assets; for Norwegian implying their aircrafts. However, most of these assets are involved in share pledges with their creditors, thus unable to be sold. Moreover, during the pandemic, it is likely that few potential purchasers will be interested; a consequence of the current liquidity situation in the aviation market. These findings suggest that the company needs governmental aid or undertake other measures to be salvaged from insolvency. However, first a scenario analysis will be conducted to confirm whether or not Norwegian actually will have sufficient cash flow to cover the pandemic's projected impact on the financials.

8.2.1 SCENARIO ANALYSIS

The implications from COVID-19 have led the writer to create two realistic scenarios for Norwegian by estimating its future cash flow by changing relevant variables; revenue and costs will be in focus as the pandemic currently greatly reduces capacity. The intention of this chapter is thus to uncover possible outcomes of the crisis. Variables not mentioned in this section are equal to the forecasted results from section 5.

8.2.1.1 BEST CASE

The first scenario will assume that Norwegian's operations will be put on hold for 6 months, until Q4. Thereafter a gradual scale up of its business, a result of an ending pandemic, is forecasted. This means that demand slowly increases to normal levels throughout 2021. In terms of capacity, the company will only realize 5% of projected revenues in Q4 2020 and 50% in fiscal year 2021, after which it would hit the estimated net profit from the base case's in 2022. The first quarter (Q1) is however unaffected from this scenario as events took off from the 1. March, and Norwegian will realize projected revenues from Q1 calculated with the forecast (section 5) estimates in mind. As the relationship between revenues in different quarters for the airline industry is non-linear, a consequence of seasonal variations, Q1 in 2020 is calculated as a percentage of 2019's Q1 (7992 MNOK) divided by total revenues that fiscal year (43 522 MNOK). This amounts to 18.4% and is multiplied with the total forecasted revenue in 2020 from section 5 to estimate Q1's (2020) total revenue.

Key Changes	2020E	2021E
Realized revenues	23.40 %	50.00 %

Figure 43. Realized revenues best case. Own creation.

The fixed costs (FC) will still have to be covered while Norwegian's fleet is grounded; the average for an airline company is 66.67% of total costs according to Rodrigue (2019). Since Norwegian does not disclose how many percent of total costs that are fixed or variable, the ratio is applied as the company's percentage of fixed costs. Variable costs (VC) will be set at zero NOK as long as the firms operations are shut down. This amounts to total costs being set at respectively 74.47% (2020) and 83.33% (2021) of the original forecast. Calculations used to find total cost estimations can be observed below.

$$\boldsymbol{Total\ costs\ as\ a\ \%\ of\ original\ forecast} = 66.67\%\ (FC) + 33.33\% * \%\ of\ realized\ revenues\ (VC)$$

In figure 44 the scenario's projected key estimates are visualized, which leads to new discounted cash flows. These are negative, meaning Norwegian cannot meet its financial obligations.

Pro Forma Income statement	2020E	2021E
Total operating revenue	8935	20930
Total operating expense	24565	29638
EBITDA	**-15630**	**-8708**
EBIT	**-20785**	**-14133**
NOPAT	**-16212**	**-11024**
Net Profit	**-17290**	**-12192**

Discounted Cash Flows - Explicit Forecasting Period	2020E	2021E
FCFF	-5227	-15225
WACC	7.63 %	7.63 %
Discount factor	0.93	0.86
Present Value FCFF	-4857	-13142

Figure 44. FCFF best case. Own creation.

8.2.1.2 WORST CASE

In this scenario it is assumed that the pandemic causes the airline industry to stay shut for 12 months after the 1. March, this indicates a year without revenues for Norwegian. As a result, projected revenues in 2020 amounts to 18.4% of original estimates, ascribed to turnover from Q1. Fixed costs have to be accounted for nevertheless and is set at the same percentage of total costs as in the former scenario, also here variable costs will be zero when Norwegian does not conduct its operations. The pandemics implications slowly fade away after Q1 2021, meaning realization of 45% of revenues from the original forecast that fiscal year. NOPAT is equal to the projected estimate from 2022 and onwards, a consequence of normal operations. Total costs are computed the same way as in the previous scenario, and amount to; respectively, 72.8% and 81.52% of the forecast from 2020 until 2021.

Key Changes	2020E	2021E
Realized revenues	18.40 %	45.00 %

Figure 45. Realized revenues worst case. Own creation.

Logically, in the worst case (seen figure 46) Norwegian also operates with negative cash flows, like in the more optimistic scenario (see figure 44). This results in in the same implications as in the preceding case.

Pro Forma Income statement	2020E	2021E
Total operating revenue	7026	18837
Total operating expense	24014	29047
EBITDA	**-16988**	**-10210**
EBIT	**-22143**	**-15635**
NOPAT	**-17272**	**-12195**
Net Profit	**-18350**	**-13363**

Discounted Cash Flows - Explicit Forecasting Period	2020E	2021E
FCFF	-6287	-16396
WACC	7.63 %	7.63 %
Discount factor	0.93	0.86
Present Value FCFF	-5841	-14154

Figure 46. FCFF negative scenario. Own creation.

8.2.1.3 RESULTS

The findings in both scenarios suggest that the company will generate negative discounted cash flows in the near future, thus indicating that Norwegian does not have sufficient flexibility on the cost side to survive the pandemic without action taken. Potential measures that could save Norwegian from financial default are a governmental bailout or a debt to equity swap, these solutions and their implications will be discussed in the following sub-chapters.

8.2.2 GOVERNMENTAL INTERVENTION

A Governmental intervention for Norwegian could imply loans/grants or a purchase of shares/an acquisition. Norway is the only country providing a bailout for the company (per 19.03.2020), and it is estimated to be worth 3000 MNOK in credit guarantees (Yahoo Finance, 2020). For the firm to claim potential capital there are however conditions, which are listed below (Norwegian, 2020d):

I) Norwegian is eligible to receive 300 MNOK, given ten percent risk participation from external creditors.

II) 1200 MNOK will be at Norwegian's disposal in the form of loans, provided that the credit is guaranteed by the Private Sector Involvement (including current debtholders) in addition to accepting a moratorium for a period of ¼ year, which includes:

   1) Deferral of principal payments
   2) Waive of interest payments, commencing on disbursement of the secured loans

III) Additional 1500 MNOK will be granted (at Norwegians disposal) given Norwegian's equity ratio is higher than or equal to 8 percent.

Norwegian has already fulfilled the requirements needed for the first tranche of 300 MNOK, as two banks guaranteed for the necessary 10 percent of financial risk (Norwegian, 2020b). However, to acquire the additional 2700 MNOK in loans the Norwegian government has demanded that the company improves its financial statements; hence measures have to be taken. As Norwegian's equity ratio (book value) amounted to 4.8 percent per 31.12.2019 the firm has to reduce liabilities by 2700 MNOK, raise an equal amount of equity or a mix of the two in order be able to meet the prerequisites associated with these tranches. This necessitates that creditors and investors need to support Norwegian financially too, if the firm shall be able to obtain the total amount of state loans. Below a visualization of the guarantee scheme illustrates which tranche Norwegian is eligible to receive as of yet.

Norwegian's Potential Governmental loans		
Fullfilled:	*Loans:*	*Conditions required to be met:*
√	300 MNOK	**Banks required to guarantee 10% of potential risk involved**
X	1200 MNOK	**Delay debt repayments & waive interest for 3 months** NIBD = 57577 MNOK (Per 31.12.2019)
X	1500 MNOK	**Equity Ratio ≥ 8%** Equity Ratio = 4.8% (Per 31.12.2019) 2700 MNOK Equity needed (assuming constant liabilities)

Figure 47. Visualization of potential external capital. Own creation.

8.2.3 NORWEGIAN'S POTENTIAL SOLUTION

Norwegian announced it will conduct an extraordinary general meeting the 04.05.2020 in order to propose several potential solutions to be able to claim the governmental aid, with the intention to ease its current financial state (Norwegian, 2020d). These initiatives include:

I) A 400 MNOK private placement against cash consideration.
II) A total or partial conversion of corporate bonds (5700 MNOK) to equity.
III) Fully or partially convert lease debt (38800 MNOK) to stocks.
IV) Authority to issue convertible loans (10000 MNOK) and stock (increase of 50% after taking initiative I, II and III into consideration).

As of 14.04.2020 no arrangement with creditors or investors has been entered to accept Norwegian's propositions. Additionally, conversion prices have not been set.

8.3 FINANCIAL OUTLOOK

This section aims to assess the likelihood of Norwegian's proposals with the intention to determine the company's financial outlook and therefore also the company valuation.

Firstly, great uncertainty exists regarding if Norwegian's proposals will be accepted by relevant stakeholders, in addition to how many of them; this implies that the number of likely outcomes are vast. Some lessors may be inclined to convert their liabilities to equity, as a consequence of SARS-CoV-2's negative effect on the lease market, whereas other creditors are secured in other assets, therefore less incentivized. As not all leases and bonds have to be converted in order to fulfill the requirements set by the Norwegian government, a possibility is to convert less than the amount suggested by the firm. Bondholders also contribute to the uncertainty. NAS08/NAS 07 is secured by Norwegian's flight slots at Gatwick airport, whereas NAS09 has a share pledge regarding the company's hangar at Gardermoen Airport. The value of these share pledges is hard to estimate under current market conditions and is defined as out of the scope for this thesis.

Sequentially, creditor's inclination towards accepting proposals also relies on their risk aversion. However, in the analyst's opinion bondholders may be more prompt to approve Norwegian's terms as these slots are harder to profit off during the pandemic. Moreover, as the liquidation of the company with high certainty, due to current market conditions, will lead to a lower liquidation value of assets, it can be argued for that creditors will be more willing to strike a deal. That the bailout is secured by the Norwegian government could also incline creditors towards accepting the conversion. Contrastingly, Norwegian's liquidity was improving pre crisis, but at low levels. It can therefore be reasoned for that bondholders will act reluctantly towards accepting the conversion, as Norwegian's financial state is fragile, and a share issue was conducted not long ago. In addition, airline investments are not part of creditors' core businesses and it would not be favorable for future negotiations for lessors as it is now is a shareholder in the company, which can be used to Norwegian's advantage. However, the leasing company can divest from the company in the future and possibly make a larger profit. There are thus arguments for both sides of the case, in the analyst's opinion there are most arguments for that the creditors may be more inclined towards accepting a debt to equity swap given the current market conditions. Before coming to an agreement there is nevertheless a plethora of decisions that must be taken before the last two trenches of the governmental aid are fulfilled, lowering the likelihood of said occurrence.

Moreover, given the firm's current conditions (per. 14.04.2020) the market value of equity (259.26 MNOK) is fractional compared to corporate bonds and lease commitments (43000 MNOK), implying substantial dilution of current shares if all of II and III should be converted (Yahoo Finance, 2020). As an effect, existing stockholders will experience a decrease in value of their shares as the amount of equity that is being raised is quite large in relation to the current market capitalization. The conditions for existing shareholders are usually not very appealing as a result of a low post-conversion share price. Solstad Offshore recently came to an agreement with its creditors regarding conversion, this left existing stockholders with 0.4

percentage of equity with the possibility of additional investments, meaning a potential 2 percent ownership (Reuters, 2020b). However, the investors accept is necessary in order for the initiatives to take place. On the other side, if they do not accept this solution there is a large possibility that the firm will experience financial default, and current shareholders' stock will be worth nothing, as debtholders will claim the remaining liquidated assets. This can be seen as a sort of game theory between shareholders and creditors, where both parts want to optimize their situation (Brandenburger & Nalebuff, 1995). Furthermore, the analyst sees two arguments favoring the acceptance towards a debt to equity conversion from current shareholders' perspective:

1) Norwegian is proposing a following stock offering directed at existing shareholders worth 100 MNOK, which would offset some of the negative associations with a debt to equity conversion for current stockowners.
2) From an economical perspective Norwegian's bankruptcy could presumably mean higher air fares (at least in Scandinavia). Norwegian and SAS are competing for market share, meaning lowered prices; thus the bankruptcy could imply higher airfares for its shareholders in this region.

Should Norwegian be able to convert debt to equity and receive funding from the government, the analyst thinks it could lead to a sustainable effect, as it would improve one of the company's big problems, its lack of liquidity. This would also positively affect the share price. Furthermore it would reduce interest payments, which would positively impact future cash flow.

Lastly, as elaborated on in earlier sections, Boeing is still obliged to pay Norwegian compensation. The amount however is uncertain, and if its reimbursement is enough to meet the terms set by the Norwegian government is unclear. Regarding if the 3000 MNOK capital injection is sufficient it is important to address that the guarantee applies for the next three months, whereas the airline market most likely will remain uncertain after this as well. COVID-19 will therefore contribute to uncertainty regarding net sales as it is unclear when Norwegian will resume normal operations and which revenue level normal operations imply. It is not unlikely that a potential covenant breach may occur if the pandemic's duration exceeds a few months.

8.4 COMPANY-SPECIFIC CONCLUSION

While there is a possibility of Norwegian being able to meet the demanded conditions set by the Norwegian government in order to access external capital. Alternatively, conduct a debt to equity swap or utilize compensation money from Boeing, should the companies agree on a settlement, to honor its financial obligations there are still unresolved problems following. Firstly, the debt conversion does not aid Norwegian's short-term liquidity much, although the injected governmental capital is favorable. Secondly, loans will only last for an extended period of time, should current conditions exceed this timeframe Norwegian could likely be in the same financial situation. Therefore it may implicate that Norwegian will

rely on sustained governmental aid during the crisis, as their revenues will most likely remain almost non-existent while costs have to be covered until the pandemic has passed. The Norwegian government has not stated anything regarding additional bailout.

Moreover, airlines operate in a cyclical industry, as summer and vacations are nearing demand for air travel increases. Norwegian's most profitable quarter will likely be offset by the ongoing epidemic as travel bans are in place. There has been no sign of removal, thus air traffic will likely remain stagnant for at least 6 months as projected in the optimistic scenario. This is not favorable given the company's current liquidity problems. After the crisis, declined GDP growth could presumably impact travel demand, as discovered in the PESTEL-analysis. Potential optimistic scenarios involve financial support from other governments or altered terms from the Norwegian government, should the creditors/investors not accept Norwegian's initiatives for the extraordinary general meeting. A settlement from the Boeing MAX situation would also be beneficial for the firm.

The outcome for the target price of existing stockholders will, in the analyst's opinion, most likely be unfavorable, due to uncertainty and factors outlaid in this chapter e.g. share dilution and potential financial default. Norwegian will have to make some sort of arrangement with its creditors and investors, if not a bankruptcy is likely to occur. The company displays increased downside risk, whereas the upside is limited.

9. THESIS CONCLUSION

The primary objective of this master thesis has been to establish the fair value of one Norwegian Air Shuttle ASA stock as of 31.12.2019 and assess if the current share price reflects the outlook of the company. With the current market and company analysis in mind, a **BUY** recommendation yielding a target price of **40.05 NOK**, is issued. As the current stock price amounts to 37.8 NOK, there is potential **upside of 7%** indicating a positive outlook for the firm. The findings are given taking a thorough analysis of firm-distinct aspects in addition to taking micro- and macro-environmental factors into account as these influence profitability, liquidity risk and operational outlook.

Norwegian is changing its strategic goal towards achieving profitability, thus downscaling operations and focusing on creating a more lucrative business, contra growing market share and operations. The PESTEL-analysis uncovered an expected reduction oil prices, a result of increasing supply, in addition to favorable future demographics and GDP outlook which would positively impact Norwegian's business. Contrarily, no competitive strategic advantage was found via the VRIN-analysis, suggesting company profitability is unlikely to exceed the industry average, as other companies can imitate their internal resources. The P5F model indicates a strong competitive environment, implying lower industry profitability. This is supported by low differentiation, high price transparency also, several companies having filed for insolvency within the last years. However, it was discovered that the airline industry is in a growth phase, which will be positive

for future industry performance. In other words, rivals do not necessarily have to just compete for each other's market share, but can also focus on the increasing demand. The most important findings were highlighted in a SWOT-analysis, thus providing a chapter overview.

The financial analysis compared Norwegian's past performance against a comparatively selected peer group, using reformulated financial statements created by the writer to assess profitability applying the DuPont framework. The key measurements utilized to analyze corporate profitability were economic value added and return on equity. Through EVA it was uncovered that investors' and creditors' required return rate (WACC) exceeded Norwegian's ROIC, indicating that the company did not produce above normal profits during the research period. On the contrary, it generated losses, which was, partly, a result of rapid expansion funded by debt. However, the high WACC (a result of financial risk) in addition to low profitability were some of the aspects involved. Moreover, ROE was found to be above average, primarily attributed to high financial leverage from high growth and expansion. Lastly, taking liquidity risk into the equation, it was found to be significant. Although improving short-term, a result of changes in strategic intent, which meant a downscaling of investments and therefore an increased ability to pay the firm's short-term obligations. In the longer horizon however, Norwegian still portrays low long-term liquidity, a consequence of a high debt burden, capital commitments and a declining share value.

Findings from both the strategic and financial analysis were considered, with the intent to forecast Norwegian's future performance. The chapter was structured by including growth drivers and cost margins to project the pro forma statement of operations in addition to utilizing investment and financing drivers to forecast the pro forma statement of financial position. Norwegian's forecast was assessed to be more profitable than past performance. The pro forma statements were then analyzed and found reasonable in regard to historical results, and therefore applied as input in both the EVA and DCF valuation method. In order to find a correct estimate of the target price, a realistic WACC had to be calculated to discount the cash flows correctly, it amounted to 7.63%. Multiples were then utilized as guiding estimates to improve the validity of fair share price, thereafter a sensitivity analysis were conducted in order to determine how sensitive the valuation was in relation to fuel cost per ASK, the cost of capital and the terminal growth rate. The findings suggested that it definitely was reactive to changes in underlying assumptions, especially WACC.

Lastly a chapter was made to analyze the implications of the current pandemic brought along by COVID-19, and its ramifications on the industry-specific and company-distinct environment. It was discovered that it will negatively impact airline firms though lowering revenues. Thus, it will create difficulties concerning the payment of fixed costs and meeting debt obligations, as the industry is known for portraying a weaker liquidity. As for Norwegian, through creating a scenario analysis, negative cash flows were found in both an optimistic and pessimistic case, implying Norwegian has to take action to prevent financial default. There the

likelihood of potential governmental bailout and a debt to equity swap was assessed and found to be highly uncertain. Thereafter, these measures were found to have a negating effect towards insolvency. Contrarily, the initiatives would have a negative impact on current equity holders' stock price as a consequence of share dilution. It was concluded with that SARS-CoV-2 brought negative market conditions in addition to significant downside risk, and limited upside risk, thus affecting the estimated target price negatively if taken into account.

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11. APPENDIX

1. REFORMULATED INCOME STATEMENTS

Analytical Income Statement (Norwegian)							
NOK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Core Operations							
Passenger revenue	35 216	32 560	24 719	21 096	18 506	16 255	13 382
Ancillary passenger revenue	6 652	6 267	4 823	3 929	3 275	2 727	1 758
Other Revenue	1 654	1 439	1 407	1 030	710	558	440
Total operating revenue	43 522	40 266	30 948	26 054	22 491	19 540	15 580
sales and distribution expenses	0	879	946	759	612	469	339
Aviation fuel	12 607	12 562	7 339	5 053	5 185	6 321	4 707
Airport and ATC charges	4 140	4 373	3 760	3 304	2 949	2 724	2 183
Handling Charges	5 260	5 201	3 685	2 996	2 337	1 855	1 339
Technical maintenance expenses	3 379	3 494	2 707	1 865	1 717	1 290	928
Other aircraft expenses	0	2 102	1 695	1 206	826	855	590
Payroll and other personell expenses	6 818	6 665	5 316	3 971	3 434	3 209	2 478
Other operating expenses	4 850	1 826	1 984	1 519	1 263	1 050	733
Loss (profit) from associated companies	14	(129)	(292)	(213)	(103)	(58)	(47)
Total operating expense	37 068	36 972	27 140	20 460	18 219	17 715	13 251
EBITDA	6 454	3 294	3 808	5 594	4 272	1 825	2 329
Lease depreciations	0	2 709	2 420	1 768	1 377	1 148	799
Deprectiation, amortization	6 458	1 668	2 061	1 296	1 133	748	530
EBIT	(3)	(1 083)	(672)	2 530	1 762	(72)	1 000
Tax core operations (tax shield)	(0)	(450)	(161)	(330)	163	(24)	107
NOPAT	(3)	(632)	(512)	2 860	1 599	(47)	893
Non-Core Operations							
TRANSITORY ITEMS							
Impairment	0	0	(656)	0	0	0	0
Other gains/(losses)	846	(994)	432	577	(474)	(584)	502
FINANCIAL ITEMS							
Financial income	205	118	71	44	74	196	150
Interest expense	3 075	1 160	959	686	463	447	257
Other financial income (expense)	340	2 274	35	118	13	(23)	(472)
Lease interest	0	1 645	1 470	1 074	836	698	485
Net financial profit/(loss)	(2 530)	(414)	(2 322)	(1 599)	(1 213)	(972)	(1 064)
Net non-core operations	(1 684)	(1 408)	(2 546)	(1 022)	(1 687)	(1 555)	(562)
Tax non-core operations (tax shield)	(78)	(586)	(608)	(44)	8	(533)	9
Marginal tax rate (Norway)	0.22	0.23	0.24	0.25	0.27	0.27	0.28
Net profit	(1 609)	(1 454)	(1 794)	1 135	246	(1 070)	322

Tax adjustments							
Pre-Tax Profit	(1 688)	(2 490)	(3 218)	1 508	75	(1 627)	438
EBIT (% of Pre Tax Profit)	0.20 %	43.48 %	20.90 %	88.32 %	95.10 %	4.40 %	92.20 %
Net Non-Core Operations (% of Pre Tax Profit)	99.80 %	56.52 %	79.10 %	11.68 %	4.90 %	95.60 %	7.80 %
Tax (Tax Shield) Tax Core operations	-0.16	-450.42	-160.58	-329.79	162.72	-24.50	106.77
Tax (Tax Shield) Tax non core operations	-78.34	-585.58	-607.92	-43.61	8.38	-532.80	9.03
Corporation tax expense (income)	(79)	(1 036)	(769)	(373)	171	(557)	116

Analytical Income Statement (Ryanair)							
Net Sales or Revenues	7 697	7 151	6 648	6 536	5 654	5 037	4 884
Cost of Goods Sold	(5 621)	(4 511)	(4 186)	(4 073)	(3 687)	(3 519)	(3 345)
EBITDA	**2 077**	**2 640**	**2 462**	**2 463**	**1 967**	**1 518**	**1 539**
Depreciation, Depletion & Amortization	(641)	(561)	(498)	(427)	(378)	(352)	(330)
Lease Depreciations	(413)	(406)	(424)	(567)	(539)	(500)	(484)
EBIT	**1 023**	**1 673**	**1 540**	**1 468**	**1 051**	**666**	**725**
Tax core operations	-68	-167	-162	-139	-124	-77	-91
NOPAT	**955**	**1 506**	**1 379**	**1 329**	**927**	**589**	**634**
Reported net financial items	-69	-56	-64	262	-61	-67	-67
Lease interest	-6.09	-5.98	-6.25	-8.36	-7.95	-7.37	-7.13
Net non-core operations (Incl lease interest)	-75	-62	-70	253	-69	-75	-74
Tax non-core operations	5	6	7	-24	8	9	9
Net Profit	**885**	**1 450**	**1 316**	**1 559**	**866**	**523**	**569**

Analytical Income Statement (easyJet)							
Net Sales or Revenues	6 385	5 898	5 047	4 669	4 686	4 527	4 258
Cost of Goods Sold	(5 390)	(4 411)	(3 898)	(3 535)	(3 290)	(3 208)	(3 132)
EBITDA	**995**	**1 487**	**1 149**	**1 134**	**1 396**	**1 319**	**1 126**
Depreciation, Depletion & Amortization	(499)	(214)	(195)	(169)	(138)	(118)	(119)
Lease Depreciations	(25)	(808)	(548)	(454)	(568)	(618)	(508)
EBIT	**471**	**465**	**406**	**511**	**690**	**583**	**499**
Tax core operations	-87.72	-91.00	-84.30	-70.61	-138.75	-131.43	-83.44
NOPAT	**383**	**374**	**321**	**441**	**551**	**451**	**415**
Reported net financial items	(36)	(18)	(19)	(3)	(2)	0	(19)
Lease interest	-0.08	-2.48	-1.68	-1.39	-1.75	-1.90	-1.56
Net non-core operations (Incl lease interest)	(36)	(20)	(21)	(4)	(4)	(2)	(21)
Tax non-core operations	6.72	4.00	4.30	0.61	0.75	0.43	3.44
Net Profit	**354**	**358**	**305**	**437**	**548**	**450**	**398**

Analytical Income Statement (SAS)							
Net Sales or Revenues	46 736	44 718	42 654	39 459	39 650	38 006	42 182
Cost of Goods Sold	(25 841)	(24 645)	(23 252)	(22 000)	(22 994)	(25 775)	(28 998)
EBITDA	**20 895**	**20 073**	**19 402**	**17 459**	**16 656**	**12 231**	**13 184**
Depreciation, Depletion & Amortization	(1 924)	(1 763)	(1 635)	(1 367)	(1 466)	(1 443)	(1 658)
Lease Depreciations	(17 703)	(15 689)	(15 490)	(14 118)	(12 890)	(10 574)	(8 879)
EBIT	**1 268**	**2 621**	**2 277**	**1 974**	**2 300**	**214**	**2 647**
Tax core operations	-276.37	-581.69	-760.20	-151.72	-748.14	-46.43	-465.86
NOPAT	**992**	**2 039**	**1 516**	**1 822**	**1 551**	**168**	**2 182**
Reported net financial items	(372)	(480)	(462)	(461)	(808)	(1 071)	(948)
Lease interest	-102.44	-90.79	-89.64	-81.70	-74.59	-61.19	-51.38
Net non-core operations (Incl lease interest)	(474)	(571)	(552)	(543)	(883)	(1 132)	(999)
Tax non-core operations	103.37	126.69	184.20	41.72	287.14	245.43	175.86
Net Profit	**621**	**1 595**	**1 149**	**1 321**	**956**	**(719)**	**1 358**

2. LEASE CALCULATIONS

Present value of leasing expenditures (Norwegian)							
NOK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Capitalization rate:	5.0						
Cost of Debt	7.56 %						
Operational leases (Payments)	0.0	4354	3890	2842	2213	1846	1284
Capitalized operational lease (PV)	0	21771	19449	14210	11067	9230	6422
Depreciations on capitalized lease	0.0	2709	2420	1768	1377	1148	799
Interest on capitalized lease	0	1645	1470	1074	836	698	485

Present value of leasing expenditures Ryanair							
Capitalization rate	5						
Cost of Debt	1.45 %						
Operational leases (Payments)	84	82	86	115	109	102	98
Capitalized operational lease (PV)	420	412	431	576	547	508	491
Depreciations on capitalized lease	413	406	424	567	539	500	484
Interest on capitalized lease	6	6	6	8	8	7	7

Present value of leasing expenditures easyJet							
Capitalization rate	5						
Cost of Debt	1.53 %						
Operational leases (Payments)	5	162	110	91	114	124	102
Capitalized operational lease (PV)	25	810	550	455	570	620	510
Depreciations on capitalized lease	25	808	548	454	568	618	508
Interest on capitalized lease	0	2	2	1	2	2	2

Present value of leasing expenditures SAS							
Capitalization rate	5						
Cost of Debt	2.88 %						
Operational leases (Payments)	3561	3156	3116	2840	2593	2127	1786
Capitalized operational lease (PV)	17805	15780	15580	14200	12965	10635	8930
Depreciations on capitalized lease	17703	15689	15490	14118	12890	10574	8879
Interest on capitalized lease	102	91	90	82	75	61	51

3. REFORMULATED BALANCE SHEET

Analytical Balance Sheet (Norwegian)							
NOK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Core operations							
Intangible assets (+ deferred tax asset)	2871	2886	1220	440	800	726	254
Other fixed assets owned	462	481	370	372	365	336	88
Right of use assets other	333	0	0	0	0	0	0
Prepayment on aircraft	4947	8561	5219	7156	5939	4103	2515
Owned aircraft, parts, and installations on leased aircraft	27392	31064	25862	22572	18508	12547	7548
Right of use assets aircraft and parts	33245	0	0	0	0	0	0
Capitalized operating leases	0	21771	19449	14210	11067	9230	6422
Total non-current assets	**69249**	**64763**	**52120**	**44749**	**36679**	**26941**	**16827**
Fixed asset investments	1485	1216	1654	1347	830	645	364
Inventory	176	167	102	103	104	83	74
Trade and other Receivables	10133	6753	4358	3014	2551	2174	1623
Total current assets	**11794**	**8136**	**6113**	**4464**	**3485**	**2902**	**2061**
Non-interest-bearing debt							
Other non-current liabilities	4598	4132	2966	1597	1392	1207	985
Air traffic settlement liabilities	6107	6907	6494	4666	4014	0	0
Other current liabilities	9136	9403	5660	3976	3677	6107	4516
total non-interest-bearing	**19840**	**20442**	**15120**	**10239**	**9084**	**7314**	**5501**
Invested capital (net operating assets)	**61202**	**52457**	**43114**	**38974**	**31080**	**22528**	**13387**

Non-Core operations							
Equity and liabilities							
Shareholder's equity	4101	1687	2086	4038	2965	2108	2750
Non-controlling interests	24	17	12	11	0	0	0
Total equity	**4125**	**1704**	**2098**	**4049**	**2965**	**2108**	**2750**
Capitalized operating leases	0	21771	19449	14210	11067	9230	6422
Bond issue	250	2401	1250	1218	0	288	0
Credit facility	0	1125	675	325	0	2041	147
Aircraft prepayment financing (Current)	95	3611	353	1369	1473	0	0
Aircraft financing (Current)	4245	4172	1967	1857	1568	997	547
Loan facility	0	0	0	0	0	0	71
Lease liabilities (Non-Current)	30080	0	0	0	0	0	0
Bond issue	4547	1182	3070	2937	3222	543	594
Facility agreement	0	0	0	0	0	527	0
Aircraft prepayment financing (Non-Current)	285	282	263	47	0	0	0
Aircraft financing (non-Current)	17682	21067	18727	15722	13322	8880	5143
Lease liabilities (Current)	4195	0	0	0	0	5	4
Financial lease liabilities	0	0	0	0	0	3	7
interest-bearing debt	**61378**	**55610**	**45753**	**37684**	**30651**	**22513**	**12934**
Financial assets available for sale	0	0	3	83	83	83	83
Assets held for sale	1205	851	0	0	0	0	0
Financial assets held for sale	0	0	80	0	0	0	11
Investments (deriv+inv in fin assets)	0	2084	616	353	0	0	37
Cash and cash equivalents	3096	1922	4040	2324	2454	2011	2166
interest bearing assets	4300	4857	4738	2760	2537	2094	2297
Net interest-bearing debt	**57077**	**50753**	**41015**	**34925**	**28114**	**20420**	**10637**
Invested capital (net financial assets)	**61202**	**52457**	**43114**	**38974**	**31080**	**22528**	**13387**

Analytical Balance Sheet (Ryanair)							
EUR millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Core operations							
PPE (Property, plant & Equipment)	9030	8123	7214	6262	5471	5060	4906
Intangible assets	146	47	47	47	47	47	47
Derivative financial instruments	228	3	23	89	555	0	5
Deferred assets	43	0	0	0	0	0	0
Capitalized operating leases	420	412	431	576	547	508	491
Total non-current assets	**9866**	**8584**	**7714**	**6972**	**6619**	**5615**	**5449**
Inventory	3	4	3	3	2	3	3
Other assets	238	236	222	149	139	124	68
Current tax	0	0	0	0	1	1	0
Trade receivables	60	58	54	66	60	58	56
Derivative financial instruments	309	212	286	269	744	17	78
Total current assets	**609**	**509**	**566**	**487**	**946**	**203**	**205**
Non-interest-bearing debt							
Trade payables	574	250	294	231	197	150	138
Accrued expenses and other liabilities	2992	2502	2257	2113	1938	1561	1341
Current tax	32	36	3	21	0	0	0
Derivative financial instruments	190	191	2	555	812	95	32
Provision	136	138	138	149	181	134	136
Derivative financial instruments	8	416	3	112	73	43	50
Deferred tax	461	395	473	386	462	369	347
total non-interest-bearing debt adjusted for op lease	**4391**	**3927**	**3170**	**3566**	**3663**	**2352**	**2044**
Invested capital (net operating assets)	**6084**	**5166**	**5110**	**3893**	**3903**	**3465**	**3610**

Non-Core operations							
Equity and Liabilities							
Shareholders' equity	5215	4469	4423	3597	4035	3286	3273
Total equity	**5215**	**4469**	**4423**	**3597**	**4035**	**3286**	**3273**
Capitalized operating leases	420	412	431	576	547	508	491
Current maturities of debt	309	435	456	450	400	468	400
Other creditors	0	3	12	33	56	90	128
Non-current maturities of debt	3335	3528	3929	3573	4032	2616	3098
interest-bearing debt	**4064**	**4377**	**4827**	**4631**	**5034**	**3682**	**4117**
Restriced cash	35	35	12	13	7	13	25
Financial assets: Cash > 3 months	1484	2131	2905	3062	3605	1498	2293
Cash and cash equivalents	1676	1515	1224	1259	1185	1730	1241
Available for sale financial assets	0	0	0	0	371	260	221
Interest-bearing assets	**3195**	**3680**	**4140**	**4335**	**5167**	**3502**	**3780**
Net Interest-bearing debt	**869**	**697**	**687**	**297**	**-133**	**180**	**337**
Invested capital (net financial assets)	**6084**	**5166**	**5110**	**3893**	**3903**	**3465**	**3610**

Analytical Balance Sheet (easyJet)							
£ millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Core operations							
Goodwill	365	365	365	365	365	365	365
Other intangible assets	196	181	179	152	127	113	102
PPE (Property, plant & equipment)	5163	4140	3525	3252	2877	2542	2280
Derivative financial intruments	126	175	87	154	44	36	13
Other non-current assets	142	122	74	121	130	152	185
Capitalized operating leases	25	810	550	455	570	620	510
Total non-current assets	**6017**	**5793**	**4780**	**4499**	**4113**	**3828**	**3455**
Current tax assets	24	0	0	0	0	0	0
Trade and other receivables	372	406	275	217	206	200	194
Derivative financial instruments	147	220	131	268	128	53	17
Total non-current assets	**543**	**626**	**406**	**485**	**334**	**253**	**211**
Non-interest-bearing debt							
Unearned revenue	1069	877	727	568	619	0	0
Trade and other payables	1050	1023	714	564	495	1110	1093
Derivative fixed instruments	138	24	82	275	368	87	60
Current tax payable	0	9	35	21	43	53	58
Provision for liabilities and charges	192	118	104	53	61	79	81
Derivative financial instruments	72	7	44	49	101	23	41
Provisions for liabilities and charges	397	335	218	235	165	147	171
Non-current deferred income	6	18	25	35	47	62	68
Deferred tax	305	343	249	237	176	186	144
total non-interest-bearing debt adjusted for op lease	**3229**	**2754**	**2198**	**2037**	**2075**	**1747**	**1716**
Invested capital (net operating assets)	**3331**	**3665**	**2988**	**2947**	**2372**	**2334**	**1950**

Non-Core operations							
Equity and Liabilities							
Shareholders' equity	2985	3233	2802	2712	2249	2172	2017
Total equity	**2985**	**3233**	**2802**	**2712**	**2249**	**2172**	**2017**
Post-employment benefit obligation	47	29	0	0	0	0	0
Capitalized operating leases	25	810	550	455	570	620	510
Borrowings	0	9	8	92	182	91	87
Lease liabilities	219	0	0	0	0	0	0
Borrowings	1324	968	963	664	322	472	592
lease liabilities	359	0	0	0	0	0	0
interest-bearing debt	**1974**	**1816**	**1521**	**1211**	**1074**	**1183**	**1189**
Restricted cash	0	0	0	0	6	23	0
Money market deposits	291	348	617	255	289	561	224
Cash and cash equivalents	1285	1025	711	714	650	424	1013
Equity investment	48	0	0	0	0	0	0
Loan notes	0	0	0	0	0	4	7
Restricted cash	4	11	7	7	6	9	12
Interest-bearing assets	1628	1384	1335	976	951	1021	1256
Net Interest-bearing debt	346	432	186	235	123	162	-67
Invested capital (net financial assets)	**3331**	**3665**	**2988**	**2947**	**2372**	**2334**	**1950**

Analytical Balance Sheet (SAS)							
SEK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Core operations							
Intangible assets	1416	1498	1581	1923	1798	1905	1802
Land and Buildings	569	500	549	527	560	243	241
Aircraft	11609	8767	7900	8254	7095	7535	8795
Spare engines and spare parts	87	92	57	48	31	76	147
Workshop and aircraft servicing equipment	126	73	88	93	101	85	117
Other equipment and vehicles	93	102	95	105	137	128	105
Capitalized operating leases	17805	15780	15580	14200	12965	10635	8930
Prepayments to suppliers	0	0	0	0	0	8	2
Prepayments relating to fixed assets	3071	2658	1987	2135	1482	763	251
Deferred tax assets	750	174	219	854	375	1111	800
Other long-term recievables	2519	2770	2512	2331	1951	1928	2249
Total non-current assets	**38045**	**32414**	**30568**	**30470**	**26495**	**24417**	**23439**
Current receivables	2622	2915	3146	3753	3211	3267	3101
Expendable spare parts and inventories	346	401	321	312	345	342	359
Total current assets	**2968**	**3316**	**3467**	**4065**	**3556**	**3609**	**3460**
Non-interest-bearing debt							
Accrued expenses and prepaid income	3202	3309	3334	5336	4684	4355	3416
Tax liabilities	17	32	32	21	0	0	36
Other liabilities	732	582	712	872	964	679	722
Unearned transportation liabilities	6049	5681	5064	5318	4482	4244	3932
Other liabilities	1926	116	0	3	188	161	161
Deferred tax liability	183	359	361	0	0	0	0
Accounts payable	1700	1675	1448	1755	1528	1499	1689
Provision	1966	4044	3461	2089	1992	2088	1361
Current portion of provision	1559	1028	1499	457	479	709	855
total non-interest-bearing debt adjusted for op lease	**17334**	**16826**	**15911**	**15851**	**14317**	**13735**	**12172**
Invested capital (net operating assets)	**23679**	**18904**	**18124**	**18684**	**15734**	**14291**	**14727**

Non-Core operations							
Equity and liabilities							
Shareholders' equity	5372	7268	8058	6026	6339	4880	3210
Non-controlling interest	0	0	0	0	0	27	16
Total equity	**5372**	**7268**	**8058**	**6026**	**6339**	**4907**	**3226**
Capitalized operating leases	17805	15780	15580	14200	12965	10635	8930
Current portion of long-term loans	784	2272	2868	1827	1264	2082	2517
Short-term loans	1049	328	166	320	229	462	231
Prepayments from customers	23	13	11	0	22	4	16
Subordinated loans	1240	1161	1067	1157	1104	1003	956
Bonds	3063	3040	386	2183	2184	2713	2641
Other loans	5147	3291	4088	4390	4807	4419	5054
interest-bearing debt	**29111**	**25885**	**24166**	**24077**	**22575**	**21318**	**20345**
Investment in progress	14	48	16	33	190	71	21
Equity in affiliated companies	14	417	374	398	421	395	352
Other holdings of securities	9	3	3	3	3	273	292
Pension funds	2004	4025	4871	2615	4368	3778	3428
Cash and cash equivalents	8763	9756	8836	8370	8198	7417	4751
interest bearing assets	10804	14249	14100	11419	13180	11934	8844
Net Interest-bearing debt	18307	11636	10066	12658	9395	9384	11501
Invested capital (net financial assets)	23679	18904	18124	18684	15734	14291	14727

4. COMMON SIZE ANALYSIS

Common size analysis							
NOK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Core Operations							
Passenger revenue	0.809	0.809	0.799	0.810	0.823	0.832	0.859
Ancillary passenger revenue	0.153	0.156	0.156	0.151	0.146	0.140	0.113
Other Revenue	0.038	0.036	0.045	0.040	0.032	0.029	0.028
Total operating revenue	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
sales and distribution expenses	0.000	0.022	0.031	0.029	0.027	0.024	0.022
Aviation fuel	0.290	0.312	0.237	0.194	0.231	0.323	0.302
Airport and ATC charges	0.095	0.109	0.121	0.127	0.131	0.139	0.140
Handling Charges	0.121	0.129	0.119	0.115	0.104	0.095	0.086
Technical maintenance expenses	0.078	0.087	0.087	0.072	0.076	0.066	0.060
Other aircraft expenses	0.000	0.052	0.055	0.046	0.037	0.044	0.038
Payroll expenses and other personell expenses	0.157	0.166	0.172	0.152	0.153	0.164	0.159
Other operating expenses	0.111	0.045	0.064	0.058	0.056	0.054	0.047
Loss (profit) from associated companies	0.000	-0.003	-0.009	-0.008	-0.005	-0.003	-0.003
Total operating expense	0.852	0.918	0.877	0.785	0.810	0.907	0.851
EBITDA	0.148	0.1	0.1	0.2	0.2	0.1	0.1
Deprectiation and amortization	0.148	0.109	0.145	0.118	0.112	0.097	0.085

5. WACC (HISTORICAL)

Historical WACC NAS	2019	2018	2017	2016	2015	2014	2013
Debt %	90.41 %	81.24 %	80.81 %	67.14 %	59.79 %	53.28 %	86.80 %
Equity %	9.59 %	18.76 %	19.19 %	32.86 %	40.21 %	46.72 %	13.20 %
Risk free rate	1.49 %	1.88 %	1.64 %	1.33 %	1.57 %	2.52 %	2.58 %
Beta	1.34	1.34	1.34	1.34	1.34	1.34	1.34
MRP	5.10 %	5.10 %	5.10 %	5.10 %	5.10 %	5.10 %	5.10 %
Credit spread	8.20 %	8.20 %	8.20 %	8.20 %	8.20 %	8.20 %	8.20 %
Pre tax WACC	9.56 %	9.82 %	9.58 %	9.08 %	9.22 %	10.08 %	10.60 %
Tax rate	22 %	23 %	24 %	25 %	27 %	27 %	28 %
WACC	7.63 %	7.94 %	7.67 %	7.48 %	7.64 %	8.54 %	7.98 %

6. PROFORMA INCOME STATEMENT AND BALANCE SHEET

Pro Forma Income statement	2019	2020E	2021E	2022E	2023E	2024E	2025T
Passenger revenue	35216	30898	33872	36264	37904	39617	40247
Ancillary passenger revenue	6652	5836	6398	6849	7159	7483	7602
Other Revenue	1654	1451	1591	1703	1780	1861	1890
Total operating revenue	43522	38185	41860	44817	46843	48961	49739
Aviation fuel	12607	10839	11707	12409	12905	13421	13556
Airport and ATC charges	4140	3628	3977	4034	3982	3917	3979
Handling Charges	5260	4582	5023	4930	4919	4896	4974
Technical maintenance expenses	3379	3055	3349	3585	3747	3917	3482
Payroll expenses and other personell expenses	6818	6491	7116	7171	7026	6854	6963
Other operating expenses	4850	4391	4395	4258	4216	3917	3979
Loss (profit) from associated companies	14	0	0	0	0	0	0
Total operating expense	37068	32987	35567	36386	36795	36923	36933
EBITDA	**6454**	**5198**	**6293**	**8431**	**10048**	**12038**	**12806**
Deprectiation & Amortization	6458	5155	5425	5647	5691	5728	5730
EBIT	**-3**	**43**	**868**	**2784**	**4356**	**6310**	**7076**
Tax on EBIT	0	-10	-191	-612	-958	-1388	-1557
NOPAT	**-3**	**34**	**677**	**2172**	**3398**	**4922**	**5519**
Net Financial Expenses	-1684	-1382	-1498	-1579	-1598	-1630	-1656
Tax shield on Financial Expenses	78	304	329	347	352	359	364
Net Profit	**-1609**	**-1044**	**-491**	**940**	**2151**	**3650**	**4228**

Pro Forma Balance sheet	2019	2020E	2021E	2022E	2023E	2024E	2025T
Tangible and Intangible Assets	69249	57277	60279	62744	63238	63649	63666
Net Working Capital	-8047	-7060	-5860	-5378	-5153	-4406	-3482
Invested Capital (Net Operating Assets)	61202	50217	54419	57366	58085	59242	60184
Equity and Liabilities							
Equity		4125	3385	3668	3866	3915	3993
Net Earnings		-1044	-491	940	2151	3650	4228
Dividends		304	774	-742	-2103	-3572	-4164
Equity, End	4125	3385	3668	3866	3915	3993	4056
Net Interest Bearing Debt	57077	46833	50751	53499	54170	55249	56128
Invested Capital (Equity & NIBD)	61202	50217	54419	57366	58085	59242	60184

7. REGRESSION OF OIL AND JET FUEL PRICES

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.981536
R Square	0.963413
Adjusted R Square	0.962782
Standard Error	2.582133
Observations	60

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	10182.85773	10182.86	1527.258	2.3051E-43
Residual	58	386.7098059	6.66741		
Total	59	10569.56754			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.674733	1.734133076	1.542404	0.128414	-0.79651138	6.14597762	-0.79651138	6.14597762
X Variable 1	1.163049	0.029760617	39.08015	2.31E-43	1.10347707	1.22262176	1.10347707	1.22262176

8. BETA REGRESSION

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.286261
R Square	0.081945
Adjusted R Square	0.066117
Standard Error	16.32654
Observations	60

ANOVA

	df	*SS*	*MS*	*F*	*ignificance F*
Regression	1	1379.972	1379.972	5.17705	0.026599
Residual	58	15460.23	266.5558		
Total	59	16840.21			

	Coefficients	*tandard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	-2.40095	2.180958	-1.10087	0.275502	-6.76661	1.964714	-6.76661	1.964714
X Variable 1	1.502796	0.660479	2.275313	0.026599	0.180704	2.824888	0.180704	2.824888

9. COST OF DEBT

Cost of Debt (Norwegian)	
Credit spread (rS)	8.20 %
Marginal corporate tax rate (t)	22 %
risk free rate (rf)	1.49 %
Cost of Debt (rD)	**7.56 %**

Credit ratio calculations (S&P):	2019	2018	2017	Average
EBIT interest cover (EBIT / net financial items)	0.27839209	-3.32108668	-2.08856666	-1.71042041
EBITDA interest cover (EBITDA/net financial items)	-2.89071146	-1.77222177	0.70070423	-1.320743
Long term debt/capital	0.93272795	0.93991441	0.92263935	0.93176057
Total debt/capital	0.95166557	0.96955451	0.95178608	0.95766872
RATING:	CCC	CCC	CCC	CCC

Cost of Debt (Ryanair)	
Credit spread (rS)	1.56 %
Marginal corporate tax rate (t)	13 %
risk free rate (rf)	0.10 %
https://investor.ryanair.com/debt/	
Ryanair credit rating: Standard and Poor's and Fitch = BBB+	
Cost of Debt (rD)	**1.45 %**

Cost of Debt (easyJet)	
Credit spread (rS)	1.56 %
Marginal corporate tax rate (t)	19 %
risk free rate (rf)	0.33 %
http://corporate.easyjet.com/site-services/search-results?ResultPage=1&Domain=all&query=HY%2019&searchphrase=exact	
BBB+ Standard & Poor's and Baa1 from Moody's	
Cost of Debt (rD)	**1.53 %**

Cost of Debt (SAS)	
Credit spread (rS)	3.51 %
Marginal corporate tax rate (t)	21 %
risk free rate (rf)	0.15 %
https://www.sasgroup.net/investor-relations/debt-and-credit-rating/	
SAS credit rating: Standard and Poor's and Fitch = B+	
Cost of Debt (rD)	**2.88 %**

10. REPORTED INCOME STATEMENTS

Reported Income Statement (Norwegian)							
NOK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Passenger revenue	35 216	32 560	24 719	21 096	18 506	16 255	13 382
Ancillary passenger revenue	6 652	6 267	4 823	3 929	3 275	2 727	1 758
Other Revenue	1 654	1 439	1 407	1 030	710	558	440
Total operating revenue	43 522	40 266	30 948	26 054	22 491	19 540	15 580
sales and distribution expenses	0	879	946	759	612	469	339
Aviation fuel	12 607	12 562	7 339	5 053	5 185	6 321	4 707
aircraft leases	0	4 354	3 890	2 842	2 213	1 846	1 284
Airport and ATC charges	4 140	4 373	3 760	3 304	2 949	2 724	2 183
Handling Charges	5 260	5 201	3 685	2 996	2 337	1 855	1 339
Technical maintenance expenses	3 379	3 494	2 707	1 865	1 717	1 290	928
Other aircraft expenses	0	2 102	1 695	1 206	826	855	590
Payroll and other personell expenses	6 818	6 665	5 316	3 971	3 434	3 209	2 478
Other operating expenses	4 850	1 826	1 984	1 519	1 263	1 050	733
Other losses/(gains)	(846)	994	(432)	(577)	474	584	(502)
impairment	0	0	656	0	0	0	0
Total operating expenses	36 208	42 449	31 545	22 938	21 010	20 202	14 080
EBITDA	7 314	(2 183)	(597)	3 116	1 481	(662)	1 500
Depreciation, amortization	6 458	1 668	1 405	1 296	1 133	748	530
Operating profit (reported EBIT)	856	(3 851)	(2 002)	1 820	348	(1 411)	970
Interest income	205	118	71	44	74	196	150
Interest expense	3 075	1 160	959	686	463	447	257
Other financial income (expense)	340	2 274	35	118	13	(23)	(472)
Net financial items	(2 530)	1 232	(852)	(525)	(376)	(274)	(579)
Profit (loss) from associated companies	(14)	129	292	213	103	58	47
Pre tax profit	(1 688)	(2 490)	(2 562)	1 508	75	(1 627)	437
Income tax expense (income)	(79)	(1 036)	(769)	(373)	171	(557)	116
Net profit	(1 609)	(1 454)	(1 794)	1 135	246	(1 070)	322

Reported Income Statement (Ryanair)							
EUR millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Net Sales or Revenues	7 697	7 151	6 648	6 536	5 654	5 037	4 884
Operating expenses	(6 040)	(4 923)	(4 616)	(4 649)	(4 234)	(4 026)	(3 836)
EBITDA	1 657	2 228	2 032	1 887	1 420	1 010	1 048
Depreciation, Depletion & Amortization	(641)	(561)	(498)	(427)	(378)	(352)	(330)
EBIT	1 017	1 667	1 534	1 460	1 043	659	718
Net financial items (income)	(69)	(56)	(64)	262	(61)	(67)	(67)
Pre tax profit	948	1 611	1 470	1 722	982	591	651
Tax	(63)	(161)	(154)	(163)	(116)	(69)	(82)
Net profit	885	1 450	1 316	1 559	866	523	569

Reported Income Statement (easyJet)							
£ millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Net Sales or Revenues	6 385	5 898	5 047	4 669	4 686	4 527	4 258
Operating expenses	(5 415)	(5 221)	(4 448)	(3 990)	(3 860)	(3 828)	(3 642)
EBITDA	970	677	599	679	826	699	616
Depreciation, Depletion & Amortization	(499)	(214)	(195)	(169)	(138)	(118)	(119)
EBIT	471	463	404	510	688	581	497
Net financial items (charges)	(36)	(18)	(19)	(3)	(2)	0	(19)
Pre tax profit	435	445	385	507	686	581	478
Tax	(81)	(87)	(80)	(70)	(138)	(131)	(80)
Net profit	354	358	305	437	548	450	398

Reported Income Statement (SAS)							
SEK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Net Sales or Revenues	46 736	44 718	42 654	39 459	39 650	38 006	42 182
Operating expenses	(43 646)	(40 425)	(38 832)	(36 200)	(35 959)	(36 410)	(37 928)
EBITDA	3 090	4 293	3 822	3 259	3 691	1 596	4 254
Depreciation, Depletion & Amortization	(1 924)	(1 763)	(1 635)	(1 367)	(1 466)	(1 443)	(1 658)
EBIT	1 166	2 530	2 187	1 892	2 225	153	2 596
Net financial items (charges)	(372)	(480)	(462)	(461)	(808)	(1 071)	(948)
Pre tax profit	794	2 050	1 725	1 431	1 417	(918)	1 648
Tax	(173)	(455)	(576)	(110)	(461)	199	(290)
Net profit	621	1 595	1 149	1 321	956	(719)	1 358

11. REPORTED BALANCE SHEETS

Reported Balance Sheet (Norwegian)							
NOK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Assets							
Intangible assets (+ deferred tax asset)	2871	2886	1220	440	800	726	254
Prepayment on aircraft	4947	8561	5219	7156	5939	4103	2515
Owned aircraft, parts, and installations on leased aircraft	27392	31064	25862	22572	18508	12547	7548
Right of use assets aircraft and parts	33245	0	0	0	0	0	0
Aircraft, parts and installations	**65584**	**39626**	**31081**	**29728**	**24447**	**16650**	**10063**
Financial assets available for sale	0	0	3	83	83	83	83
Other fixed assets owned	462	481	370	372	365	336	88
Right of use assets other	333	0	0	0	0	0	0
Other fixed assets	**795**	**481**	**373**	**454**	**448**	**419**	**171**
Total tangible fixed assets	**66379**	**40106**	**31454**	**30182**	**24895**	**17068**	**10233**
Fixed asset investments	1485	1216	1654	1347	830	645	364
Total non-current assets	**70734**	**44209**	**34328**	**31969**	**26525**	**18439**	**10851**
Assets held for sale	1205	851	0	0	0	0	0
Inventory	176	167	102	103	104	83	74
Investments	0	2084	616	353	0	0	37
Financial assets held for sale	0	0	80	0	0	0	11
Trade and other Receivables	10133	6753	4358	3014	2551	2174	1623
Cash and cash equivalents	3096	1922	4040	2324	2454	2011	2166
Total current assets	**14609**	**11777**	**9195**	**5793**	**5109**	**4268**	**3912**
Total assets	**85343**	**55985**	**43523**	**37763**	**31634**	**22706**	**14763**

Equity and Liabilities							
Shareholders' equity	4101	1687	2086	4038	2965	2108	2750
Non-controlling interests	24	17	12	11	0	0	0
Total equity	**4125**	**1704**	**2098**	**4049**	**2965**	**2108**	**2750**
Bond issue	4547	1182	3070	2937	3222	543	594
Facility agreement	0	0	0	0	0	527	0
Aircraft prepayment financing	285	282	263	47	0	0	0
Aircraft financing	17682	21067	18727	15722	13322	8880	5143
Financial lease liabilities	0	0	0	0	0	3	7
Lease liabilities	30080	0	0	0	0	0	0
Non-current debt	52594	22530	22060	18706	16543	9953	5744
Other non-current liabilities	4598	4132	2966	1597	1392	1207	985
Total non-current liabilities	**57192**	**26662**	**25027**	**20303**	**17936**	**11161**	**6728**
Air traffic settlement liabilities	6107	6907	6494	4666	4014	0	0
Bond issue	250	2401	1250	1218	0	288	0
Credit facility	0	1125	675	325	0	2041	147
Aircraft prepayment financing	95	3611	353	1369	1473	0	0
Aircraft financing	4245	4172	1967	1857	1568	997	547
Loan facility	0	0	0	0	0	0	71
Lease liabilities	4195	0	0	0	0	5	4
Current debt	8784	11309	4245	4769	3041	3331	768
Other current liabilities	9136	9403	5660	3976	3677	6107	4516
Total current liabilities	**24026**	**27619**	**16398**	**13411**	**10733**	**9438**	**5285**
Total liabilities	**81218**	**54281**	**41424**	**33714**	**28669**	**20598**	**12013**
Total Equity and Liabilities	**85343**	**55985**	**43523**	**37763**	**31634**	**22706**	**14763**

Reported Balance Sheet (Ryanair)							
EUR millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Assets							
PPE (Property, plant & Equipment)	9030	8123	7214	6262	5471	5060	4906
Intangible assets	146	47	47	47	47	47	47
Derivative financial instruments	228	3	23	89	555	0	5
Available for sale financial assets	0	0	0	0	371	260	221
Deferred assets	43	0	0	0	0	0	0
Total non-current assets	9447	8173	7284	6397	6443	5368	5179
Inventory	3	4	3	3	2	3	3
Other assets	238	236	222	149	139	124	68
Current tax	0	0	0	0	1	1	0
Trade receivables	60	58	54	66	60	58	56
Derivative financial instruments	309	212	286	269	744	17	78
Restriced cash	35	35	12	13	7	13	25
Financial assets: Cash > 3 months	1484	2131	2905	3062	3605	1498	2293
Cash and cash equivalents	1676	1515	1224	1259	1185	1730	1241
Total current assets	3804	4189	4706	4822	5742	3444	3764
Total assets	13251	12362	11990	11218	12185	8812	8943

Equity and Liabilities							
Shareholders' equity	5215	4469	4423	3597	4035	3286	3273
Total equity	5215	4469	4423	3597	4035	3286	3273
Trade payables	574	250	294	231	197	150	138
Accrued expenses and other liabilities	2992	2502	2257	2113	1938	1561	1341
Current maturities of debt	309	435	456	450	400	468	400
Current tax	32	36	3	21	0	0	0
Derivative financial instruments	190	191	2	555	812	95	32
total current liabilities	4097	3413	3012	3370	3346	2275	1912
Provision	136	138	138	149	181	134	136
Derivative financial instruments	8	416	3	112	73	43	50
Deferred tax	461	395	473	386	462	369	347
Other creditors	0	3	12	33	56	90	128
Non-current maturities of debt	3335	3528	3929	3573	4032	2616	3098
Total non-current liabilities	3939	4480	4555	4252	4804	3252	3759
Total liabilities	8036	7893	7567	7622	8150	5526	5670
Total Equity and Liabilities	13251	12362	11990	11218	12185	8812	8943

Reported Balance Sheet (easyJet)							
£millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Goodwill	365	365	365	365	365	365	365
Other intangible assets	196	181	179	152	127	113	102
PPE (Property, plant & equipment)	5163	4140	3525	3252	2877	2542	2280
Derivative financial intruments	126	175	87	154	44	36	13
Equity investment	48	0	0	0	0	0	0
Loan notes	0	0	0	0	0	4	7
Restricted cash	4	11	7	7	6	9	12
Other non-current assets	142	122	74	121	130	152	185
Total non-current assets	6044	4994	4237	4051	3549	3221	2964
Trade and other receivables	372	406	275	217	206	200	194
Derivative financial instruments	147	220	131	268	128	53	17
Current tax assets	24	0	0	0	0	0	0
Restricted cash	0	0	0	0	6	23	0
Money market deposits	291	348	617	255	289	561	224
Cash and cash equivalents	1285	1025	711	714	650	424	1013
Total current assets	2119	1999	1734	1454	1279	1261	1448
Total assets	8163	6993	5971	5505	4828	4482	4412
Equity and Liabilities							
Shareholders' equity	2985	3233	2802	2712	2249	2172	2017
Total equity	2985	3233	2802	2712	2249	2172	2017
Trade and other payables	1050	1023	714	564	495	1110	1093
Unearned revenue	1069	877	727	568	619	0	0
Borrowings	0	9	8	92	182	91	87
Lease liabilities	219	0	0	0	0	0	0
Derivative fixed instruments	138	24	82	275	368	87	60
Current tax payable	0	9	35	21	43	53	58
Provision for liabilities and charges	192	118	104	53	61	79	81
Total Current liabilities	2668	2060	1670	1573	1768	1420	1379
Borrowings	1324	968	963	664	322	472	592
lease liabilities	359	0	0	0	0	0	0
Derivative financial instruments	72	7	44	49	101	23	41
Non-current deferred income	6	18	25	35	47	62	68
Post-employment benefit obligation	47	29	0	0	0	0	0
Provisions for liabilities and charges	397	335	218	235	165	147	171
Deferred tax	305	343	249	237	176	186	144
Total non-current liabilities	2510	1700	1499	1220	811	890	1016
Total liabilities	5178	3760	3169	2793	2579	2310	2395
Total equity and liabilities	8163	6993	6402	5595	5291	4482	4412

Reported Balance Sheet (SAS)							
SEK millions	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Intangible assets	1416	1498	1581	1923	1798	1905	1802
Land and Buildings	569	500	549	527	560	243	241
Aircraft	11609	8767	7900	8254	7095	7535	8795
Spare engines and spare parts	87	92	57	48	31	76	147
Workshop and aircraft servicing equipment	126	73	88	93	101	85	117
Other equipment and vehicles	93	102	95	105	137	128	105
Property, plant & Equipment	**12484**	**9534**	**8689**	**9027**	**7924**	**8067**	**9405**
Investment in progress	14	48	16	33	190	71	21
Prepayments relating to fixed assets	3071	2658	1987	2135	1482	763	251
Equity in affiliated companies	14	417	374	398	421	395	352
Other holdings of securities	9	3	3	3	3	273	292
Pension funds	2004	4025	4871	2615	4368	3778	3428
Deferred tax assets	750	174	219	854	375	1111	800
Other long-term recievables	2519	2770	2512	2331	1951	1928	2249
Total non-current assets	22281	21127	20252	19319	18512	18291	18600
Expendable spare parts and inventories	346	401	321	312	345	342	359
Prepayments to suppliers	0	0	0	0	0	8	2
Current receivables	2622	2915	3146	3753	3211	3267	3101
Cash and cash equivalents	8763	9756	8836	8370	8198	7417	4751
Total current assets	11731	13072	12303	12435	11754	11034	8213
Total assets	34012	34199	32555	31754	30266	29325	26813
Equity and Liabilities							
Shareholders' equity	5372	7268	8058	6026	6339	4880	3210
Non-controlling interest	0	0	0	0	0	27	16
Total equity	5372	7268	8058	6026	6339	4907	3226
Subordinated loans	1240	1161	1067	1157	1104	1003	956
Bonds	3063	3040	386	2183	2184	2713	2641
Other loans	5147	3291	4088	4390	4807	4419	5054
Deferred tax liability	183	359	361	0	0	0	0
Provision	1966	4044	3461	2089	1992	2088	1361
Other liabilities	1926	116	0	3	188	161	161
Total non-current liabilities	13525	12011	9363	9822	10275	10384	10173
Current portion of long-term loans	784	2272	2868	1827	1264	2082	2517
Short-term loans	1049	328	166	320	229	462	231
Prepayments from customers	23	13	11	0	22	4	16
Accounts payable	1700	1675	1448	1755	1528	1499	1689
Tax liabilities	17	32	32	21	0	0	36
Unearned transportation liabilities	6049	5681	5064	5318	4482	4244	3932
Current portion of provision	1559	1028	1499	457	479	709	855
Other liabilities	732	582	712	872	964	679	722
Accrued expenses and prepaid income	3202	3309	3334	5336	4684	4355	3416
Total current liabilities	15115	14920	15134	15906	13652	14034	13414
Total equity and liabilities	34012	34199	32555	31754	30266	29325	26813