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Pierre Rolland

Is the low-cost long-haul business model a threat to European major airlines?

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<p>The objective of this thesis is to understand the low-cost air market in Europe and identify the differences to explain to what extent the low-cost long-haul business is a threat to the European major airlines.</p> <p>This thesis consists of an explanation of the different low-cost long-haul air-market strategies in Europe, observe their development, successes and failures, and analyse their impact on the major airlines.</p> <p>The result of this research shows us that the low-cost model has affected the traditional model, and that major airlines have to adapt their offers to retain their clients. We also find out that the low-cost strategy that applies to the long-haul is not and cannot be the same as the short and medium-haul strategy.</p>	
Keywords	Low-Cost Airlines, Norwegian Air Shuttle, Business Model, Europe, Long-haul, COVID-19

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Glossary

BOB: Buy On Bord

CEO: Chief Executive Officer

CTA: Air Carrier Certificate

Cabin Crew: Flight attendants

FAA: Federal Aviation Administration

FFP: Frequent Flyer Program

HUB: Correspondence platform

IAG: International Airlines Group

IFE: In-Flight Entertainment

MOM: Middle Of Market

NAS: Norwegian Air Shuttle ASA

NP: Aircrew

O&D: Origin & Destination

RPK: Revenue Passengers Kilometres

SNPNC: National Union of Commercial Aircrew Personnel

UAF: Union of French Airports

1 Introduction

Air transport is a worldwide activity and must therefore adapt to all the events that may appear in the four corners of the world. The growth of air transport is therefore always exposed to the economic, political and geopolitical crises of the countries. When these events take on international importance, this is proportionately reflected in air transport by a more or less significant drop-in activity. (Budd & Goetz, 2014)

To survive these threats, which are beyond their control, airlines leverage internal factors that they can act on to increase their profitability and ensure their sustainability. The implementation of a clear strategy based on a careful diagnosis of existing opportunities and threats inevitably conditions their success and optimizes strategic decisions. (Budd & Goetz, 2014)

This approach also makes it possible to seize sometimes rare opportunities that can allow the company to gain a significant competitive advantage over its adversaries.

The economic model of low-cost airlines has existed for several decades and their market share has steadily increased. However, the most successful low-cost companies, such as Southwest, Ryanair and EasyJet, have implemented a low-cost strategy based solely on short and medium-haul routes.

In the past, there have been several attempts to create a long-haul and low-cost transport offer. The most emblematic example is that of Skytrain between the United States and the United Kingdom in the 1970s, but there was also more recently Zoom Airlines which operated Boeing 767 between New York and London Gatwick before going bankrupt in 2008. (Morrell, 2008)

These companies had embarked on a long-haul, low-cost model, but none of them managed to make it economically viable. Yet, since 2013, a new wave of low-cost long-haul flights in Europe is emerging.

Founded in 1993, Norwegian Air Shuttle ASA (NAS) has managed to become a very large company and is now the third European low-cost carrier and the second largest airline in Scandinavia.

It is from 2013 that NAS decides to use its acquired know-how on intra-Community routes to embark on the long-haul adventure. This long-haul network is owned by the traditional national companies for a very long time in the market. More than half of the revenues of companies such as Air France-KLM, Lufthansa and British Airways, also known as major airlines, come from this market. They are even prepared to accept losses on their short and medium-haul flights in order to get passengers to their Hubs to travel on their long-haul flights, and thus earn money. Until a few years ago, these majors would never have thought to face low-cost companies on the long-haul. (DA LUZ , 2008)

Today, the commercial offer offered by NAS takes precedence over its passage in Europe. Every year, the company opens new bases in European capitals, new airlines to North America, and acquires the latest aircraft models available from Boeing and Airbus manufacturers.

However, it is difficult to think that in an environment as complex as that of air transport, current success is a guarantee for future success. NAS is part of a very dynamic industry, characterized by low profit margins, fierce competition and emerging challenges that can change the competitive environment at any time.

The main objective of this dissertation will be to analyse the commercial offer that NAS currently offers on board its long-haul flights. We will try to understand whether this commercial offer poses a threat to the European majors.

This dissertation will be structured around three main parts: the current state of the air transport market, the functioning of the commercial offer of low-cost companies on long-haul, and their future prospects taking in consideration the COVID-19 pandemic.

First, we will talk about the long-haul market. After giving the necessary characteristics to clearly define a long-haul flight, we will study the organization of this particular market.

This part of the study will highlight the possibilities for development and the constraints that low-cost networks may encounter.

We will then look more specifically at the Norwegian Air Shuttle model. We will compare the services offered on board its long-haul flights with those offered to passengers of major airlines in Europe. We will also see how these majors intend to protect themselves from this new low-cost threat by launching low-cost subsidiary companies in their turn.

Finally, in a final section, we will look at the impact of the COVID-19 pandemic on low-cost and major airlines market.

2 Current state of the air transport market

In 2019, nearly 4.5 billion passengers have travelled by air, whether for personal, business or holiday purposes. In 2004, only 1.9 billion people travelled by air, a threefold increase in passenger volume in the space of 15 years. (Mazareanu, 2020)

This democratisation of air transport is both the result and the cause of many changes in a sector that has undergone profound changes in the space of a few decades.

Although the number of air passengers has risen sharply in recent years, the fact remains that the airline sector generates very low margins and the majority of airlines are still making a loss.

Since the 1990s, there has been a real explosion in the number of air passengers worldwide. While all continents have seen an increase in the number of passengers, the growth has not been uniform.

In terms of passenger numbers, the Asia-Pacific market represents 34.7% of world traffic, with 1.5 billion passengers, followed by the European market with 26.8% of traffic, 1.1 billion passengers. The North American market is in third place with 22.3% of traffic, 1 billion passengers. In 4th place is the Middle East market, which represents 9% of traffic with 460 million passengers. The Latin American market represents 5.1% of world

traffic with 200 million passengers. Finally, the African market with 99 million passengers represents 2.1% of the world market. (IATA, 2020)

There is therefore an inequality in the distribution of world passenger traffic according to markets, with the largest market alone possessing nearly a third of world traffic, and the smallest market, the African market, representing barely 2.1% of world traffic. (IATA, 2019/2020)

In this dissertation we will focus on the European airline market.

2.1 Air transport in Europe

In Europe, the long-haul market is extremely important. It accounts for 65% of the revenue generated by the market. (IATA, 2019/2020)

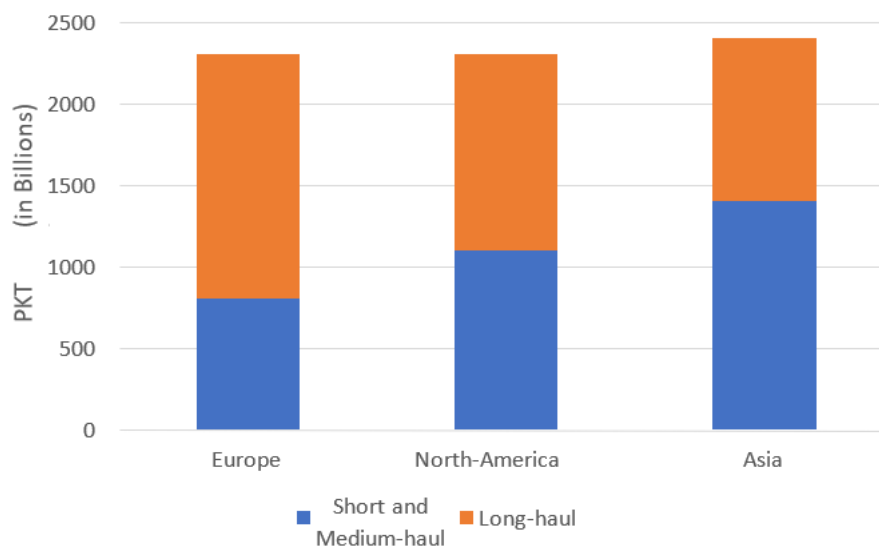


Figure 1 Passengers kilometres travelled share per region

For European majors such as British Airways, Lufthansa and Air France-KLM, long-haul routes account for more than 60% of their total revenues, and 90% of their profits are made on these routes.

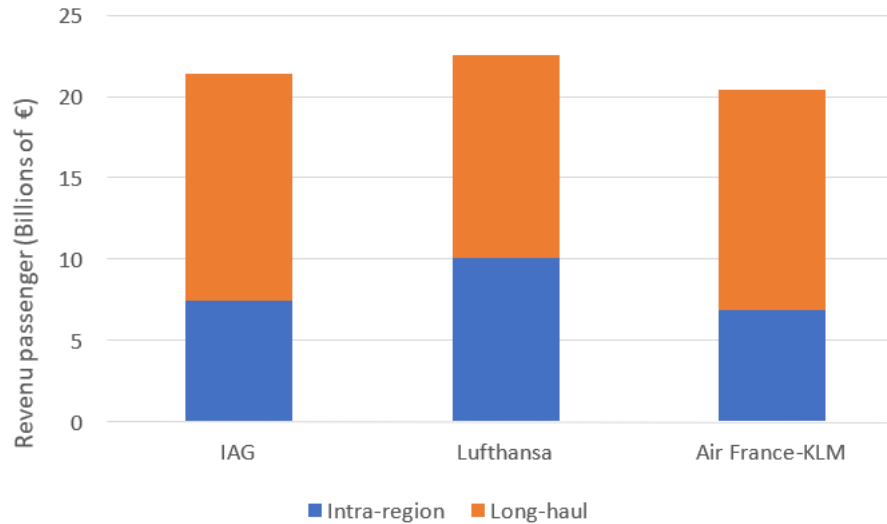


Figure 2 Big European three distribution of revenue for short/medium and long-haul flights

The most important long-haul market for European airlines is undoubtedly the North Atlantic market. The value of this market is estimated at more than 40 billion dollars, it is the largest intercontinental air transport market in the world. In terms of revenues, it represents about half the size of the medium-haul network in Europe. It is also very profitable for the incumbent operators, largely due to the deregulation of air transport, which has led to the creation of three joint ventures (Lufthansa Group / Air Canada / United Airlines, Air France-KLM / Delta / Alitalia et American Airlines / British Airways / Iberia / Finnair) allowing better coordination of flights between partners and revenue sharing.

Today, margins on the North Atlantic market often exceed 9-10% whereas the margin for the whole industry was 5.2% in 2019. (IATA, 2019/2020).

High profits combined with low barriers to entry make the North Atlantic the most attractive market for new entrants on long-haul.

Other long-haul markets, such as the Europe-Asia market, are still very important in terms of revenues, but margins are lower, with greater fragmentation, more aggressive competition (massive presence of the Gulf companies) and lower average yields. However, the prospects for economic growth in these markets may be even stronger than in developed markets.

There are structural differences in passenger requirements on medium and long-haul routes.

2.1.1 The medium-haul

Low-cost airlines on medium-haul flights (Easyjet, Ryanair, etc.) have managed to understand that on 1 to 2-hour flights, an airplane seat remains a basic product for the passenger that will be selected solely on the basis of price: the offer offering the best price will be chosen. Indeed, most of the short-haul industry in Europe is currently converging towards a system in a high-density, all-economy configuration where premium travel classes are being eliminated. All business, business and premium economy travel classes are considered premium products. The single class cabin has enabled low-cost airlines to gain significant market share and generate revenue growth by maximising the number of passengers that can be carried on a flight. Increasing the number of seats therefore means being able to lower the ticket price per passenger. (Hayward, 2020)

Let's take the example of a company that needs to generate €5,000 in profit on a flight to make it profitable. If the aircraft is configured with 100 seats, the ticket price will have to be €50 to make the flight profitable. However, if the airline configures its aircraft to carry 125 passengers, then the ticket price will now need to be €40 to make the flight profitable. This is exactly how low-cost airlines work. By densifying their cabins, they can offer tickets at lower prices and thus attract more passengers. (Panda, 2020)

There is, however, a real demand for a premium product on medium and long-haul routes, thanks to work-related travel and the increase in leisure passengers who can afford to travel on a premium product. On the North Atlantic market, Boeing estimates that premium represents 10 to 20% of passengers but 50% of revenues (Boeing, 2020)

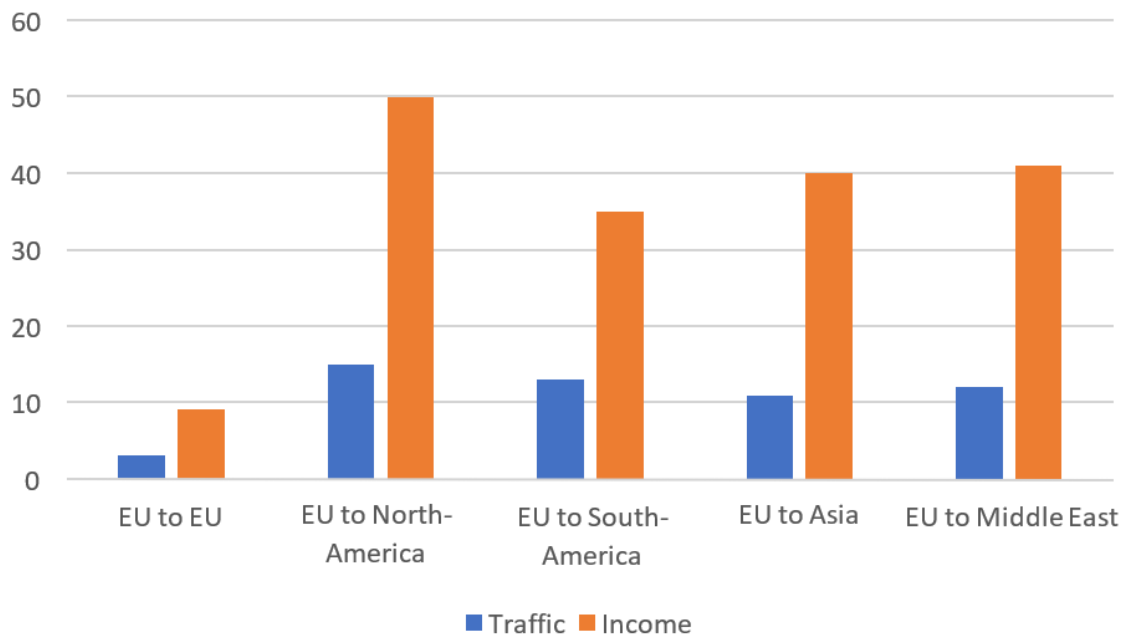


Figure 3 Share of traffic and income from own products in Europe

The key to the success of the low-cost model on short-haul has been to strongly stimulate demand, and/or to take market share from other modes of transport (bus, car). In the segments where EasyJet and Ryanair have positioned themselves, such as the city break, the only reason why passengers travel by air is the very attractive price of the low-cost ticket. This is an important element that ensures a certain number of passengers throughout the year, even during the winter months when demand should logically be lower. However, the low cost on short-haul remains very seasonal. (CAPA, 2014)

2.1.2 The long-haul

Long-haul air travel is much more intentional than medium-haul. Travel times are naturally longer, and the absolute costs (air travel and overall expenses) are higher. Indeed, according to the UK Office for National Statistics, the average travel time for UK residents on long-haul holidays in 2019 was almost twice as long as on medium-haul holidays, with more than double the average expenditure. This means that the further away a passenger travels for their holiday, the longer they will stay there. Most of these trips have therefore been planned for a very long time. This makes it more difficult for a low-cost airline to stimulate demand for this kind of off-season travel.

The air market in Europe is therefore the 2nd largest market in the world, with nearly 1.1 billion passengers transported in 2019. The North Atlantic market is the largest intercontinental market in the world. The vast majority of the profits of the European majors are made on long-haul flights. (UK Government, 2020)

2.2 Low-cost companies

Today, low-cost companies are at the forefront of the European scene. In the midst of the crisis, they are announcing increases in passenger traffic while the majors are recording historically low passenger numbers. These "new" companies have been one of the predominant drivers of the airline offer in Western Europe over the last ten years.



Figure 4 EasyJet plane on up and Ryanair plane down

Ryanair and EasyJet, the two largest European low-cost airlines, are now competing with the world's largest traditional airlines. The ranking of airlines established in January 2019 by the specialised press places Ryanair in fifth position and EasyJet in eighth position with respectively 154,4 million passengers carried by the Irish company and almost 96,1 million by the English company during the 2019 financial year. (CAPA, 2020) British Airways carried fewer passengers than the two low-cost airlines (44,6 million), as did Lufthansa (71 million). These two companies hold around 20% of the European air market and their share is growing. Even if in Europe the development of low-cost airlines is relatively recent, it is not the same in the United States where the first low-cost airline

was created in the 1970s. It was inspired by Pacific Southwest Airlines (1949-1988). Southwest Airlines was the first company of its kind to be created in 1971. This company developed an operating model which it then proved to be efficient by being profitable for 50 years. The "Southwest effect" then spread throughout the world in the 1990s (Ryanair 1991, Easyjet 1996, Air Asia 2000, Jetstar 2001...).

The low-cost model thus established by Southwest is interesting to study in order to understand how low-cost companies operate around the world. (PEREIRA, 2020)

2.2.1 The low-cost model

Southwest Airlines is the first company of its kind. It was officially created in 1971 from an existing company, Air Southwest (1967), which operated domestic flights in the state of Texas. This company quickly developed a different operating model from the traditional airlines, allowing it to be profitable and to develop an important traffic thanks, among other things, to an aggressive pricing policy. The low-cost model thus created was then taken up by many companies around the world. Today, many of these companies, inspired by the Southwest model, are named low-cost. But the term is also often applied to companies that practice low fares or restructure their operations to increase efficiency. (PEREIRA, 2020)

The explanatory causes of the expansion of the low-cost model should also be taken into account. Geographical factors have influenced the development and modification of the model towards greater efficiency. These factors may have an influence in the long run.

As pointed out in a report by the Union des Aéroports Français on low-cost airlines in 2008, there is neither a legal nor an economic definition of these companies, but a set of criteria characteristics of this type of operation. These criteria are numerous and varied and help to differentiate low-cost companies from traditional companies. The low-cost model is characterised by a high use of aircraft. This is made possible by serving uncoordinated secondary airports where traffic is less important. The aircraft have a very short turnaround time on the ground, between 20 and 30 minutes on small hubs, which

enables airlines to operate more flights per day over short distances and thus gain in productivity. To this end, these aircraft only carry passengers and not freight, thus saving on fuel and minimising time on the ground. The fleets used are homogenous, usually a single model of aircraft ordered in large quantities to achieve economies of scale and maintenance costs (UAF, 2018).

Ryanair currently has a fleet of 300 Boeing 737-800s in one hundred and eighty-nine seat configuration and 183 Boeing 737MAX-200 on order (Ryanair, 2020).

The pricing is done with prices that increase with the filling of the planes while remaining simplified, theoretically, 50% cheaper than the traditional companies. Ancillary revenues are very important in the low-cost model. In contrast to what is done on board traditional airlines, the "no frills" service of low-cost airlines is limited to its strict minimum: transport. All ancillary services are paid for on board and on the ground. From priority boarding to food on board, all ancillary services are charged for. The same applies to check-in of hold luggage, which is also a paid service not included in the ticket price. (MINKOVA, 2009)

The social policy of these companies is also special, especially in Europe. These companies have their head offices in countries where fiscal and legal constraints are more flexible than in the vast majority of other countries, which enables them to make savings on employee costs. Pilots are not paid less than on traditional airlines, which is less true for the on-board sales staff, who are, on the other hand, interested in on-board sales. The employees of these companies are not unionized and have fewer benefits than in other companies but have higher productivity due to point-to-point flights from bases where staff return home every night. (AirJournal & Duclos, 2020)

All these criteria characterise the "purist" low-cost model thus named by the CEO of Air Asia. The aim of all these companies is to be profitable by practising an aggressive pricing policy concerning the sale of seats at prices well below the competition in order to exercise market dominance through price. The control of costs constantly optimised to their maximum (machines, administrative, personnel...) and the saving of time on ground operations are also important elements of the strategy of such companies.

But some national airlines, in times of difficulty, are also lowering fares and making fundamental changes in their business plans to achieve better control of their operating costs, and can also be called "low-cost" even though they do not have the same operational strategy as low-cost airlines.

The term low-cost is frequently used to refer to companies operating according to the same model but very different at the same time. Low-cost companies have developed a number of modifications to the Southwest model to gain competitiveness and control their production costs in different geographical markets. Common characteristics of low-cost companies are also used today by major companies.

3 Operation of Norwegian Airlines

3.1 Presentation of the company

Norwegian Air Shuttle ASA (NAS) is a publicly traded company in the European market. The airline was re-launched as a low-cost airline in 2002 after 9 years as a regional airline in Norway. NAS was listed on the Oslo Stock Exchange in December 2003 and has become one of the largest low-cost airlines in Europe. (NAS, 2020)

Founded in 1993, NAS quickly became the 3rd largest low-cost company in Europe and the 2nd largest company in Scandinavia, behind SAS. In 2020, NAS employs 11,000 people, operates 424 routes to 160 destinations on 4 continents and has carried more than 36 million passengers in 2019 (NORWEGIAN AIR SHUTTLE ASA, 2020)

The purpose of this section is to describe the company by briefly reviewing its history and explaining how it has managed to achieve such a position in the air transport market.

3.1.1 The Beginnings

In the first years of NAS's operation, the company operated jointly with another low-cost company: Braathens. At that time, Braathens was the largest domestic airline in Norway. This cooperation lasted until 2002, when Braathens was taken over by SAS. Following

this takeover, all contracts between NAS and Braathens were terminated. NAS became completely independent and launched its low-cost strategy to become a direct competitor of SAS in the Scandinavian market.

To finance its expansion plans, the company became listed on the Oslo Stock Exchange in 2003. For its initial public offering, the company's capital increased by 28 million euros.

In 2004, NAS concluded a code-sharing agreement with 2 other low-cost airlines in the Norwegian market: Fly Nordic and Sterling. This agreement enabled NAS to extend its destination network to Europe. (NAS, 2020)

3.1.2 Development of network

NAS started as a regional airline providing a limited number of flights to the west coast of Norway. Over time, NAS expanded its network across Norway, before extending its destinations to Sweden and Denmark.

In 2006 the company started to expand beyond Scandinavia. A Polish subsidiary was established operating flights from Warsaw airport to five European cities. After acquiring FlyNordic from Finnair in 2007, Stockholm was chosen as the airline's Swedish base. NAS then added Rygge and Copenhagen to its base collection in Scandinavia and Dubai became the airline's first destination outside Europe in 2008.

In 2011 NAS began international flights from Gothenburg in Sweden and opened a new base in Helsinki. With bases in Sweden, Finland, Denmark and Norway, NAS has established itself as a serious competitor to SAS in the Scandinavian market.

2013 was an important year in the NAS strategy. The company took delivery of its first three Dreamliners (nickname given to the B787). Five others arrived in 2014. With these new long-range aircraft, NAS was able to launch its long-haul flights from its Scandinavian bases to Fort Lauderdale, New York and Bangkok. Bangkok has also become the company's first base outside Europe.



Figure 5 Norwegian B787-8 landing

In February 2014, NAS obtained an Irish Air Operator Certificate for its subsidiary, Norwegian Air International Ltd. NAS also opened its first bases in the USA: in New York and Fort Lauderdale, and began operating flights from London Gatwick to its US bases. In total, NAS has 17 aircraft bases: six in Spain, five in Norway, two in the USA and one each in France, the UK, Denmark, Finland, Italy and Thailand. (NAS, 2020)

3.1.3 Structure

3.1.3.1 Company

Norwegian Air Shuttle ASA is the parent company of the Norwegian Airline Group. The Group owns and operates subsidiaries in Norway, Ireland, Sweden, Denmark, Finland and Singapore. Operations are divided into sub-groups, the main one being the Airline Group. NAS's commercial airline operations are carried out by the parent company Norwegian Air Shuttle ASA and its subsidiaries. Norwegian Long-haul AS is a subsidiary

that operates long-haul flights, Norwegian Air Norway AS is in charge of operations from Scandinavian bases, and Norwegian Air Shuttle ASA flies from European bases. The subsidiary in charge of asset management (aircraft ownership and leasing) is located in Ireland. NAS also has a resource group consisting of wholly owned subsidiaries in some countries, which provide permanent local employment for its pilots. Finally, NAS also has interests in other business areas through the creation of subsidiaries involved in promoting the NAS brand, Norwegian Cargo and an interest in Bank Norwegian.

NAS's current structure is the result of a company reorganisation that took place in 2014. According to the company, the main objective of the new structure was to provide a platform for continued growth and entry into new markets while maintaining the company's flexibility. A clear separation of its business areas improves the company's ability to respond quickly to changing market dynamics (NAS, 2020)

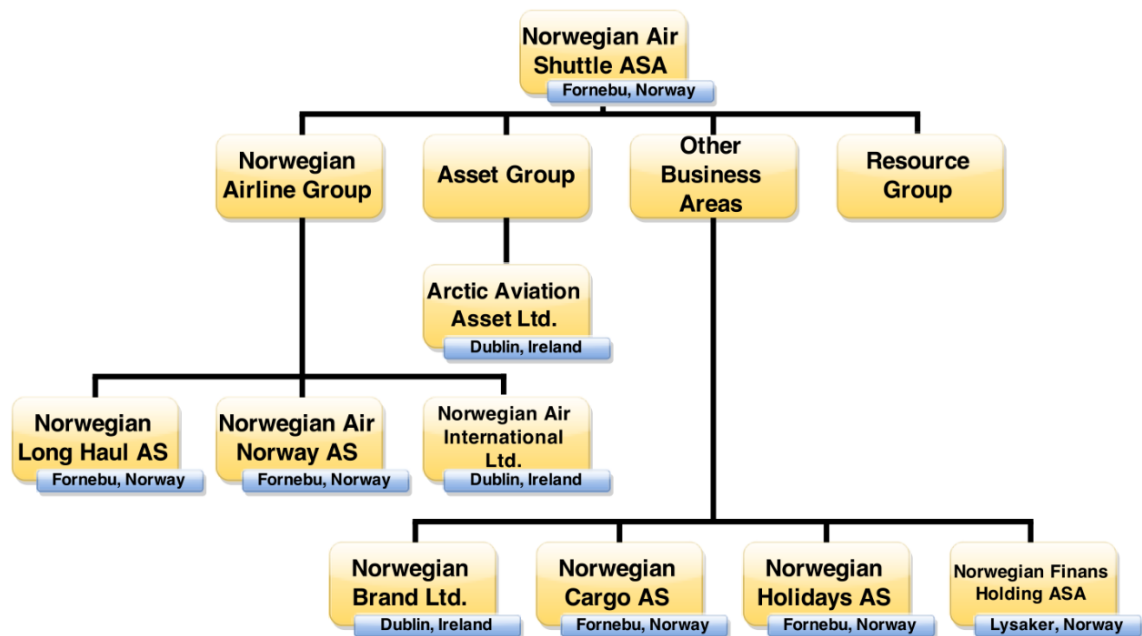


Figure 6 Norwegian Air Shuttle ASA organisation chart

3.1.3.2 Shareholding

The company went public on the Oslo Stock Exchange in December 2013 and there are currently 35 million shares outstanding held by almost 8500 institutional and private investors. Neither the Norwegian government nor NAS owns shares in the company.

78.5% of the shares are held by Norwegian investors with the remainder held by investors from around the world, but largely from the UK, Sweden, Finland and Luxembourg.

The company has a very diversified ownership structure, the largest shareholder being HBK Invest AS. with 27%, and no other shareholder holds more than 7% of the shares. Diversification of ownership mitigates the risk that anyone controlling a large part of the shareholding will not be able to influence the board or management to make decisions in their personal interest, to the detriment of minority shareholders.

In addition, NAS has only one class of shares and there are no restrictions on trading in the Company's shares. Having homogenous types of shares means that the interests of all shareholders are properly aligned and that they all have the same power and ability to obtain information about the company's business. (Les Echos, 2020)

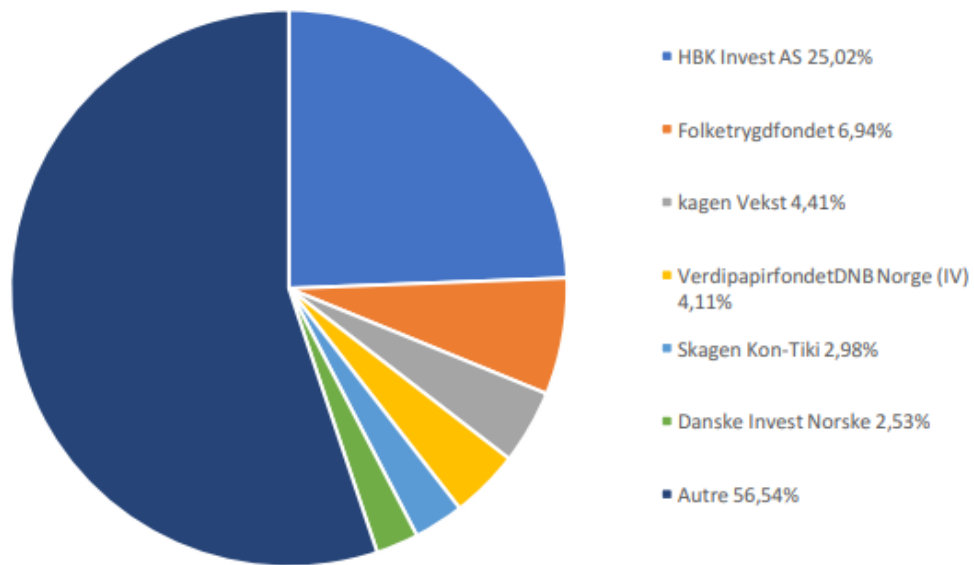


Figure 7 Norwegian Air Shuttle shareholders

3.2 Presentation of the NAS air network

3.2.1 Medium-haul

NAS is today the 4th largest low-cost company in Europe. It has a medium-haul network with 125 destinations.

As this study focuses on NAS's long-haul strategy, we will not go into the details of its medium-haul network.

It should be noted, however, that NAS allows its passengers to make connections between the medium-haul and long-haul flights in its network.

3.2.2 Long-haul

NAS operates long-haul flights from 13 airports in Europe: Stockholm (ARN), Barcelona (BCN), Belfast (BFS), Bergen (BGO), Paris (CDG), Copenhagen (CPH), Dublin (DUB), Edinburgh (EDI), Rome (FCO), Helsinki (HEL), London

(LGW), Cork (ORK), Oslo (OSL) and Shannon (SNN). NAS therefore offers long-haul flights from most major European capitals and cities.

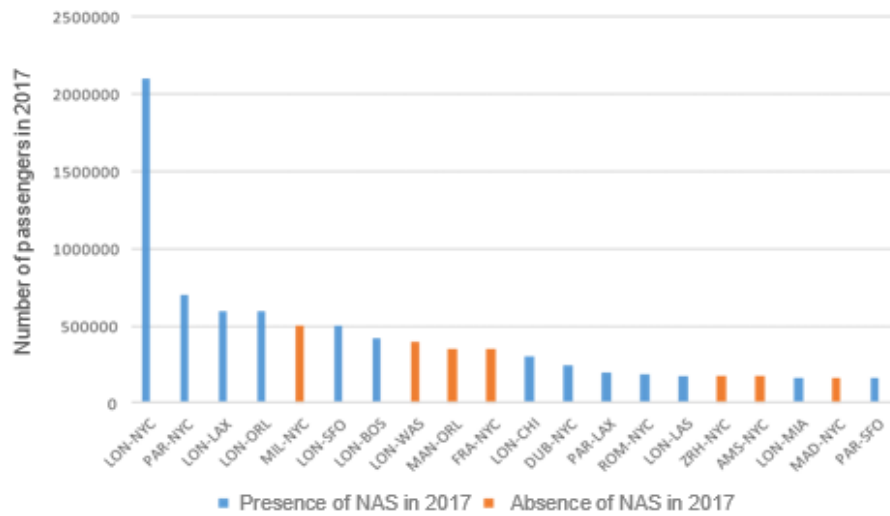


Figure 8 TOP 20 flight ticket reservation between EU and US

As can be seen above, NAS operates flights on 13 of the 20 routes with the most traffic between Europe and the United States.

In 7 years of long-haul operations, NAS now has an impressive network. The company has developed extremely well in the North Atlantic market with connections between Europe and the United States.

Apart from Dubai and Bangkok, NAS focuses exclusively on long-haul routes to and from the United States.

It should be noted that connections from Fort-De-France and Point-à-Pitre do not fall within the definition of long-haul connections that we gave at the beginning of this study. They are however present here to support the fact that NAS is developing very rapidly on the North American continent. (NAS, 2020)

3.3 The long-distance business model

3.3.1 The NAS offer



Figure 9 NAS Boeing 787-8 cabin configuration

The principle of the NAS business model is to sell a ticket at the lowest possible price, with as service included the strict necessities for the passenger, we talk about a no-frills service. Different types of tickets will be offered for purchase, ranging from the most basic package to the most elaborate. (THOMAS, 2017)

The most basic ticket only includes transport from point A to point B, not including hold luggage and meals on board.

Depending on the ticket, the more you pay, the more options are included in the ticket (hold luggage, meals on board, etc.). These services for which the passenger will pay a supplement are called "Ancillary item". (Dorsey, 2018)

Meals on board are not only included for the most basic ticket. By implementing this system, NAS wishes to offer the customer the possibility of paying only for the services they wish to use.

This is how NAS intends to differentiate itself from the majors. Indeed, the majors sell long-haul tickets with almost all services on board included in the ticket price (meals, pillows, blankets, headphones, etc.).

NAS offers two types of travel classes on board its long-haul flights on B787: economy class and premium economy class. The pitch will be higher on the premium economy seats (the pitch represents the space between a point on a seat and the same point on the previous seat, the higher the pitch, the more leg room there is). The pitch in premium economy is 114 cm while the pitch in economy is 78cm. The width of the seat will also be different, called "Width" (distance between the two armrests of the seat), it will be 43 cm in economy and 47 cm in premium economy. (Seat Guru, 2021)

Each class of travel offers its own ticket prices. There are five different ticket prices: LowFare, LowFare+, Flex, Premium and PremiumFlex.

	Economy cabin Seat pitch: 78 cm (31")			Premium cabin Seat pitch: 109 - 117 cm (43 - 46")	
	Lowfare	Lowfare+	Flex	Premium	PremiumFlex
 Hand baggage	Free 1 x 10kg	Free 1 x 10kg	Free 1 x 10kg	Free 1 x 10kg	Free 1 x 10kg
 Checked baggage	\$	Free 1 x 20kg	Free 2 x 20kg	Free 2 x 20kg	Free 2 x 20kg
 Seat reservation	\$	Free	Free	Free	Free
 Fast Track	\$	\$	Free	Free	Free
 Meals	\$	Free	Free	Free	Free
 Lounge	-	-	-	Free	Free
 Changes	\$	\$	Free	\$	Free
 Refundable	-	-	Free	-	Free

Figure 10 Fares comparison on NAS long-haul flight

As explained in the table above, the majority of the differences between the different types of tickets are in the number of hold luggage allowed, the possibility of reserving a

seat free of charge, whether or not the meal on board is included in the ticket, and the possibility of changing or being reimbursed for the ticket free of charge.

All options not included in the ticket purchased can be purchased in addition. These are, as explained earlier, the ancillary items.

Cost to change a LowFare, LowFare+ and Premium ticket:

- Change of name: 45€.
- Modification of reservations (all flights except long-haul international): 45€ + price difference
- Modification of bookings (international long-haul): 90€ + price difference
- Upgrade to premium cabin: price difference
- Refundable: Non-refundable

Flex and PremiumFlex :

- Name change: free of charge
- Booking modification: free of charge
- Upgrade to premium cabin: price difference
- Refundable: fully refundable

Booking fee: 18€ per person and per journey if booking or changes are made by telephone or at the airport.

Transfer fee: €9 per person per journey if connecting, €18 for connecting via London

Gatwick Seat reservation for Low Fare ticket:

35€ per person per long-haul international flight

Meals and extras on board:

- Pre-ordered meals for LowFare tickets: €35
- Non-alcoholic drinks: 4-5€.
- Alcoholic drinks: 7-15€.

- Snack: 4-8€.
- Fresh food; 10-11€.
- Travel blanket: 5€.
- headphones: 3€.

Concerning luggage, here are the prices of the different services offered:

Cabin baggage:

- Low Fare, LowFare+, Premium: 10kg
- Flex, PremiumFlex: 15kg

Checked baggage:

- LowFare: no luggage included, 50€ international flights checked in at the airport), online 35€ long-haul flights
- LowFare +: 1 luggage of 20 kilo included, online 35€ long-haul flight
- Flex, Premium, and premium Flex: 2 pieces of luggage of 20kg included, online 35€ long-haul flight

Excess luggage: excess luggage charges are applicable to any item exceeding the limit of 2 pieces of luggage and to any item weighing more than 20kg: €11 per kilo and per stage. (NAS, 2021)

We are in the presence of an “à la carte” system. The passenger, if he or she wishes, can have access to all the services offered on board a traditional airline. However, he or she will have to pay money in addition to the price of his or her plane ticket (it all depends on the type of ticket purchased).

3.3.2 The Comparison with major airlines

3.3.2.1 Air France

Air France - KLM is the result of a merger between Air France and KLM Royal Dutch Airlines, the Dutch national airline, in 2004. It is one of Europe's leading air transport groups. Its main activities are the air transport of passengers and freight as well as

aircraft maintenance. In 2016, Air France - KLM carried more than 93 million passengers. The group's fleet comprises 552 aircraft, including 142 regional aircraft operated by its partners Hop! and KLM Cityhopper. Its network covers 230 destinations in 113 countries from its hubs at Paris-Charles de Gaulle and Amsterdam-Schiphol. The Flying Blue frequent flyer programme is Europe's leading frequent flyer programme with more than 21 million members. Air France and KLM are members of the SkyTeam alliance, which has 20 member airlines, offering customers access to a global network of more than 14,800 daily flights to 993 destinations in 186 countries.

Air France therefore has a heterogeneous long-haul fleet, with a total of 5 different aircraft models. The airline offers up to four classes of travel on board some of its long-haul aircraft: Economy, Premium Economy, Business and La Première.



Figure 11 Fares comparison on Air France long-haul flight

La Première Class is only available on board the A380-800 and 777-300ER. There are 9 La Première seats in the A380s and 4 seats in the 777s. (Seat Guru, 2021)

La Première is a private suite with a seat that converts into a bed over 2 metres (a seat that converts into a bed is called a "flat bed seat"). The services associated with this class of travel range from a personalised welcome at the airport to in-flight gastronomic service and the use of the airport lounges before and after the flight.

Business class is available on all Air France long-haul aircraft. Depending on the type of aircraft, the seat is either a flatbed seat or a seat that reclines to 45 degrees (also known as a "lie-flat seat"). Air France is currently in the process of retrofitting its aircraft with a new range of business cabins called Best&Beyond, which will offer flat-bed seats for the entire business class as well as aisle access for each seat. This means a 1-2-1 seating configuration: one seat near the window - one aisle - two centre seats each with access to one aisle - the second aisle - one seat near the window. (Air France, 2021)

The premium economy class is the same as the economy class, the only difference is in the seats. Indeed, the seats will be slightly wider and slightly further apart compared to the economy seats. The pitch will be higher on the premium economy seats. For example, on an Air France A340, the pitch in premium economy is 95 cm while the pitch in economy is 81 cm. The seat width will also be different, called "Width" (distance between the two seat armrests), it will be 46 cm in economy and 47 cm in premium economy.

The cabin configuration is also different between these two classes of travel. At Air France, you will often find premium economy cabins in 2-3-2 instead of the 3-3-3 economy cabin, as the seats are wider and logically take up more space.

At Air France there is therefore no real type of ticket like at NAS, but there are only different cabin classes. There can be up to 4 different cabin classes on a plane, and therefore 4 types of tickets, each one being linked to its type of cabin. Unlike NAS, where when a passenger chooses to travel in premium economy, he or she must also choose a type of ticket, either Premium or PremiumFlex.

For Air France, from the moment a passenger pays to travel in a cabin class, he or she obtains all the services related to that cabin.

The main difference between Air France and NAS also lies in the fact that with the French airline, hold baggage, a meal on board, a cushion and a blanket during the flight are included in all tickets.

It is interesting to see that on its website, the company is now advertising this cushion and blanket included. A service that was previously thought to be inseparable from long-haul flights is now being promoted by the major airlines.

WELCOME!

We have planned everything to ensure your safety, comfort and well-being during your trip. Our cabins are regularly cleaned and disinfected. As soon as you are on board, we offer you a sanitary kit. Relax... A pillow and a fleece blanket, whose cleaning has been reinforced, are also available for your rest. You see, it's all ready!



Discover the products and services available on a specific flight

**A COMFORTABLE AND ADJUSTABLE SEAT**

Get comfortable: there is ample room for your legs and you can incline the headrest as desired. The armrest is fully retractable (on most seats) when your seatback is in both the upright and inclined positions.

Choose one of our Seat Options if you want to travel with extra leg room, enjoy the calm of a smaller cabin or reserve a seat with just one neighbor.

Figure 12 Included service advertising on the Air France website

However, Air France does offer auxiliary services for economy class tickets: the possibility of paying €20 to choose your seat.

For economy and premium economy passengers, there is also a possibility to pay from €12 to 19€ to obtain an "à la carte" menu instead of the meal normally served on board.



MENU TRADITION

Menu Tradition : voyagez au cœur de la gastronomie française. Avec le menu Tradition, l'art de vivre à la française est à l'honneur ! Découvrez une sélection de recettes savoureuses et traditionnelles, cuisinées à partir de produits authentiques qui sont les fleurons des terroirs français. Choisissez le menu Tradition et faites de votre vol un voyage au cœur du patrimoine culinaire français !

Prix du menu : 18 €*

* Prix pour les vols au départ de Paris.

MENU OCÉAN

Menu Océan : une grande vague de fraîcheur

Découvrez un menu qui puise ses saveurs et son inspiration au cœur d'un petit port de pêche... Avec le menu Océan, vous dégustez de délicieux produits de la mer mariés aux saveurs de la terre et cuisinés avec finesse. Laissez-vous emporter dans un moment unique de dépaysement et de fraîcheur !

Prix du menu : 15 €*

* Prix pour les vols au départ de Paris.



MENU ITALIA

Menu Italia : la « dolce vita » à déguster sans tarder

Pendant votre vol, offrez-vous une farandole de saveurs généreuses et ensoleillées. Avec le menu Italia, vous dégustez une cuisine authentique et simple, inspirée des meilleures recettes régionales italiennes. Goûtez sans tarder aux parfums de la « dolce vita », et passez un moment convivial et chaleureux !

Le menu Italia vous est proposé au départ des départements d'outre-mer, des États-Unis, du Canada, de l'Afrique, de la Chine, de la Corée du Sud et du Japon.

Prix du menu : 12 €*

* Prix pour les vols au départ des départements d'outre-mer.



Figure 13 "à la carte" menu options Air France

Services related to each class of travel :

Economy: 1 cabin baggage included.

Premium Economy: same as Economy + higher amount of miles earned and priority route at the airport (skypriority route: priority queue at baggage check-in, security checks and boarding).

Business: Same as Premium Economy + access to the lounge at the airport

Première: Same as Business + personalised access to the airport. (Air France, 2021)

3.3.2.2 Lufthansa

Lufthansa is the German national company founded in 1926. It is based at Frankfurt Airport (FRA) and Munich Airport (MUC). It is part of the Lufthansa Group, which also owns Brussels Airlines, Austrian Airlines, Swiss Airlines and Germanwings. In 2016, 110 million passengers travelled with Lufthansa Group. Lufthansa Group owns a total of 617 aircraft and operates flights to more than 300 destinations in 100 countries. Lufthansa is co-founder of the Star Alliance, which has 26 members. (Lufthansa Group, 2020)

Lufthansa has a fleet composed mainly of Airbus aircraft, with only 747s as Boeing planes. It has 23 Airbus A350s and 34 B777Xs on order, with deliveries scheduled to begin in 2020.

Like Air France, Lufthansa offers up to 4 different classes of travel on board its long-haul aircraft: Economy, Premium economy, Business and First.

However, for each class of travel there are different types of ticket:

- For economy: Basic, Basic Plus and Flex rates
- For premium economy: Basic, Basic Plus and Flex rates
- For business: Saver, Basic, Basic Plus and Flex price list
- For the first one: Saver, Basic, Basic and Flex price list

It is interesting to see that Lufthansa, even for its most prestigious travel classes, is setting up prizes called Saver. The ticket includes all the "air" services included in a first ticket, but the difference will be made on the "soft" services, i.e. the change of reservation or the refund of the ticket.

The different tickets will bring changes concerning:

- The possibility to change your booking: free of charge for a flex ticket, charge for a basic and basic plus ticket.
- The possibility of a ticket refund: free for a flex ticket, chargeable for a basic plus ticket and impossible for a basic ticket.

First tickets allow you to have 3 pieces of hold luggage and access to the First Lounge. Business tickets give access to the business lounge and give the possibility to have 2 pieces of luggage in the hold. Premium economy tickets allow 2 pieces of hold luggage, while economy tickets only allow 1 piece of hold luggage.

When purchasing an economy ticket, passengers have the option of reserving their seat for an additional €10.

Here are the differences in ticket prices according to travel classes and ticket types:

Example of a flight between Frankfurt and New York JFK between 01 November 2017 and 20 November 2017.

Fare	Multiplier coefficient
EconomyBasic	1
EconomyBasicPlus	2,5
PremiumEconomyBasic	1,9
PremiumEconomyBasicPlus	2,8
PremiumEconomyFlex	5,1
BusinessBasic	6,1
BusinessBasicPlus	7,1
BusinessFlex	7,8
FirstSaver	9,7
FirstBasicPlus	10,5
FirstFlex	14,1

Figure 14 Lufthansa ticket fares comparison

As mentioned above, the majors continue to offer their passengers all classes on their long-haul flights with the maximum number of services. Savings are not mainly made on long-haul but rather on medium-haul.

Indeed, more and more traditional companies in Europe are aligning themselves to the Basic pricing model: the majors are adapting to the Southwest model. This can also be seen in terms of in-flight services: British Airways, for example, stopped serving meal trays on board its medium-haul flights in 2016.

During long-haul flights, some passengers may decide not to eat. For example, we can imagine that on so-called "red-eyes" flights (which leave very late in the evening and arrive in the morning), some passengers may decide not to eat and sleep directly once they are settled in their seats. The catering company therefore finds itself with trays whose meals have hardly been started, or not opened at all. These meal trays are then considered "contaminated". The catering company cannot do anything with these meal trays, they are forced to throw them away. They cannot reuse them because the cold chain has been broken, and legally, for health reasons, it is forbidden to reuse these meal trays.

If 300 passengers are scheduled on a flight, the airline must therefore provide at least 300 meal trays, as the meal is included in the ticket price that the passenger pays.

The airline company therefore signed a contract with its catering provider for an order of 300 meals.

For Air France, for example, a meal tray in economy class will cost an average of €4 to €6, €25 in business class and up to €100 in La Première class. On average, for a long-haul transatlantic flight of 10 hours with 300 passengers, 600 meals are taken on board the plane. The number of meals consumed per passenger on board the plane will vary according to the class of travel in which they are travelling. A business passenger will consume several meals during his or her trip, whereas passengers in economy class will generally only be served one meal. (Cousin, 2016)

This is why there is a growing trend towards Buy-On-Board (BoB) systems, such as the system used by NAS: the meal can be booked online before the day of departure, thus allowing passengers wishing to eat during the flight to be able to do so, and conversely it avoids wasting a meal tray for the passenger who does not eat. Meals can also be purchased on board during the flight, as the airline will provide a certain number of meal trays based on the number of passengers scheduled to travel on the flight and the number of meals sold on board on a previous date. In a way, a kind of yield management system for catering is emerging, whereby using statistics and information from previous flights, airlines can predict the number of meal trays that will be purchased on board the flight with a suitable margin of error. This avoids unnecessary expenditure and saves the airline money.

3.3.3 Reaction of the major airlines

NAS announced in 2016 that it wanted to launch flights to the United States from Barcelona in 2017, which prompted IAG to react and launch Level. There is now head-to-head competition between these two airlines to Los Angeles and Oakland.

3.3.3.1 Level by IAG

On 17 March 2017, IAG announces the launch of a new company within their group: Level. Entering service at the beginning of June, Level operates low-cost long-haul flights from Barcelona. The first routes operated are to Los Angeles, Oakland, Buenos Aires and Punta Cana with tickets starting at €100 one way. (LEVEL, 2021)



Figure 15 Airbus A330-200 Level

IAG's main asset in Barcelona is the presence of the HUB of their European low-cost Vueling. The Vueling flights will therefore be able to offer connections for flights from Level to Barcelona, thus ensuring a certain number of passengers from all over Europe for these transatlantic connections.

Level is operating 6 314-seat A330-200s in 293-seat economy configuration in 2-4-2 and 21 premium economy seats in 1-2-1.

Level offers 3 economy fare classes and one premium economy fare class. The entry-level fare class, called "LEVEL", includes the seat on board the aircraft as well as hand luggage. All additional services are subject to a charge.

The following 3 classes of economy fares are becoming more and more expensive and offer more and more additional services.

The "Light" class includes, for example only one hold luggage. The "Comfort" class also offers the possibility to choose a seat when booking online, a checked bag and meals. The "Extra" class includes the same as the comfort and the possibility to change your reservation free of charge.

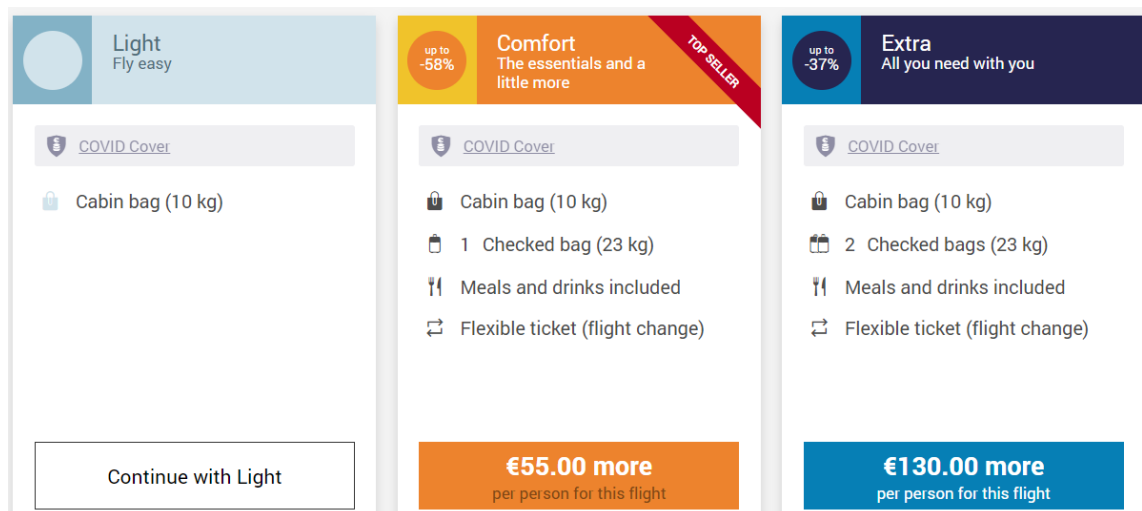


Figure16 Economy fares comparison on LEVEL long-haul flight

For the premium cabin, the fare class includes 2 pieces of hold luggage, the meal on board and the possibility to change your reservation, speed checking and boarding, and special seats. (Level, 2021)

Why choosing our Premium Cabin?

Fly with more confort with all you need

COVID Cover

- Cabin bag (10 kg)
- 2 Checked bags (23 kg)
- Meals and drinks included
- Flexible ticket (flight change)
- Special cabin** NEW
Seat selection, more space and comfort
- Priority Boarding
- Dedicated check-in desks

Add Premium

Figure17 Premium fare on LEVEL long-haul flight

One of the most innovative features of the long-haul model offered by NAS is the intensive use of ancillary income. On intra-European low-cost, it has been proven that the implementation of basic ticketing with the possibility of additional services leads to better revenues. (Kaplan, 2019)

Today, virtually all major airlines in Europe charge for seat selection on medium-haul flights and for cabin baggage in economy class. There are even very few airlines that still serve meals on board.

However, the majors are still sceptical about the introduction of basic prices and à la carte services on long-haul routes. For them, the passenger in economy class expects to have a meal on board and a piece of cabin luggage included in the ticket. (Anon., 2016)

For NAS and many other low-cost long-distance companies, the choice is clear. Having 5 different ticket prices allows a better segmentation of its commercial offer compared to the commercial offers of the majors, even if they don't have business or first classes.

NAS is clearly a success story. In its financial report for the third quarter of 2016, the company stated that ancillary revenues bring in €50 per passenger, which is enough to make the majors jealous. 15% of NAS' total long-haul revenue comes from ancillary revenues. (NAS, 2019)

Nevertheless, it can be expected that for the next few years the majors will do the same as they are currently doing on medium-haul, i.e. introduce basic ticket fares and additional à la carte products as introduced on the new Level airline by IAG.

4 Low-cost long-haul perspectives of development and COVID-19

The world of commercial aviation has been going through a lot of turbulence since March 2020. Indeed, COVID-19 has hit the sector hard at all levels: airlines, suppliers, manufacturers and many others. Although all were affected, airlines were impacted in different ways and therefore reacted in different ways.

In the coming years, new challenges will be faced such as health, economic and/or environmental crisis.

4.1 Current state of air market

The airline industry is experiencing the worst storm in its history. In 2020, the Covid-19 pandemic reduced the number of passengers worldwide by 60%. In total, airlines have lost €315 billion, some 40 have gone bankrupt and, as we enter 2021, more than a third of the world's 23 000 aircraft are still grounded.



Figure18 Aircraft grounded due to Covid-19

While all airlines are suffering terribly, those based on the low-cost model, such as Ryanair, Wizz Air and Vueling, are faring less badly than the others. They are better equipped to manage periods of low activity: they have cash and lower fixed costs.

The cash flow champion is Ryanair, sitting on a 3.5-billion-euro nest egg at the end of 2020. Ryanair lost €900 million in 2020, which is very bad but much less than the others. In comparison, Air France lost €7 billion over the same period and, even with savings across the board, the French airline has increased its debt to €13 billion. (Daboval, 2021)

Low-cost airlines operating short and medium-haul routes are ready to restart as soon as the restrictions are lifted due to their healthy economic situation, unlike traditional airlines which will take years to pay off their debts.

On the other hand, if there is one low-cost sector that has been hit hard by the health crisis, it is the long-haul low-cost market, many of which will not recover.

To sum up,

- **Short and medium-haul low-cost carriers**
Hyper-agile, well-managed and positioned in the most dynamic sector, Ryanair, Wizz Air and EasyJet will be among the first to take off.
- **The 100% public**
Those of the Gulf or Singapore have been fed with subsidies. They are very exposed to long-haul traffic, which is more damaged, but they will quickly take off again.
- **Historical parastatals and private companies**
Some, such as Air France, will have more difficulty than others in repaying their debts when the crisis ends. They should not disappear, but their convalescence will be long.
- **Long-haul low-cost carriers**
Already heavily in debt before the arrival of Covid, they may not survive it. Level, Norwegian and AirAsia could be left out in the cold.

4.2 Failure of Norwegian long-haul

On 14 January 2021 NAS filed for bankruptcy protection in Norway and Ireland, where most of its subsidiaries and aircraft are based. This means that 2,000 jobs will be lost and its bases in France, Italy, the UK and the US will close.

Having been let down by the Norwegian government, which had guaranteed a loan last spring, the company had little choice but to try to reduce its colossal debt from six billion euros at the end of the third quarter to two billion within a year. Since the beginning of the pandemic, only 6 Norwegian planes have continued to fly out of a fleet of 140. Under these conditions, it is difficult to envisage anything on the long-haul low-cost market, the recovery of which is still uncertain as long as the borders are closed. (FranceTVInfo, 2021)

As a result, Norwegian Air will retain only its short-haul business, which is expected to restart quickly after the COVID-19 crisis. The company will concentrate on its core

business in the Nordic countries, operating a European short-haul network with single-aisle aircraft only. Under these circumstances, a long-haul business is not viable for Norwegian, and will not be continued. If the recovery plan is successful and accepted, it would initially own up to 50 Boeing 737s (owned and leased) operating mainly in Norway and the Nordic countries and between Scandinavia and continental Europe. The number of aircraft could rise to 70 by 2022, from the current fleet of 70 737-800s and 18 of the 110 737 MAX 8s initially expected. (Ricci, 2021)

5 Conclusion

Low-cost airlines have, for various reasons, successfully developed on domestic and medium-haul networks around the world. Their development according to a model opposite to that of the traditional major companies quickly made them successful and proved that it was possible to be profitable by offering very low prices but also by producing at very low-costs.

Norwegian Air Shuttle ASA did shake up the air transport market. This young company, which was still unknown 15 years ago, had managed to impose its model little by little on the long-haul market. It has even pushed the European majors to adapt to its arrival, forcing them to use elements of its low-cost model and create new companies to defend their territories. This shows to what extent Norwegian Air Shuttle and all European low-cost airlines such as Ryanair and EasyJet, represents a threat in the eyes of the traditional airlines. Nevertheless, we have seen that there have been failures to launch long-haul low-cost airlines and even in the world of air transport, no one is immune. Norwegian Air Shuttle was the only real low-cost long-haul alternative in Europe. We have seen that the long-haul low-cost model of NAS did not survive against the Covid-19 crisis, but investors have learned from it. A new low-cost named "Norse Atlantic" with the same business model and same founders of NAS will be launched by next December 2021. But what about tomorrow? What will happen if the American low-cost airlines, led by JetBlue, attack the long-haul market in Europe? Similarly, could Norse Atlantic, Level and FrenchBee face direct competitors in its European market?

We cannot have precise answers today, only the future will tell us. What is certain is that, at the present time, the low-cost model from short to long-haul does indeed represent a direct threat to the major airlines in Europe and forces them adapt their offers to this model.

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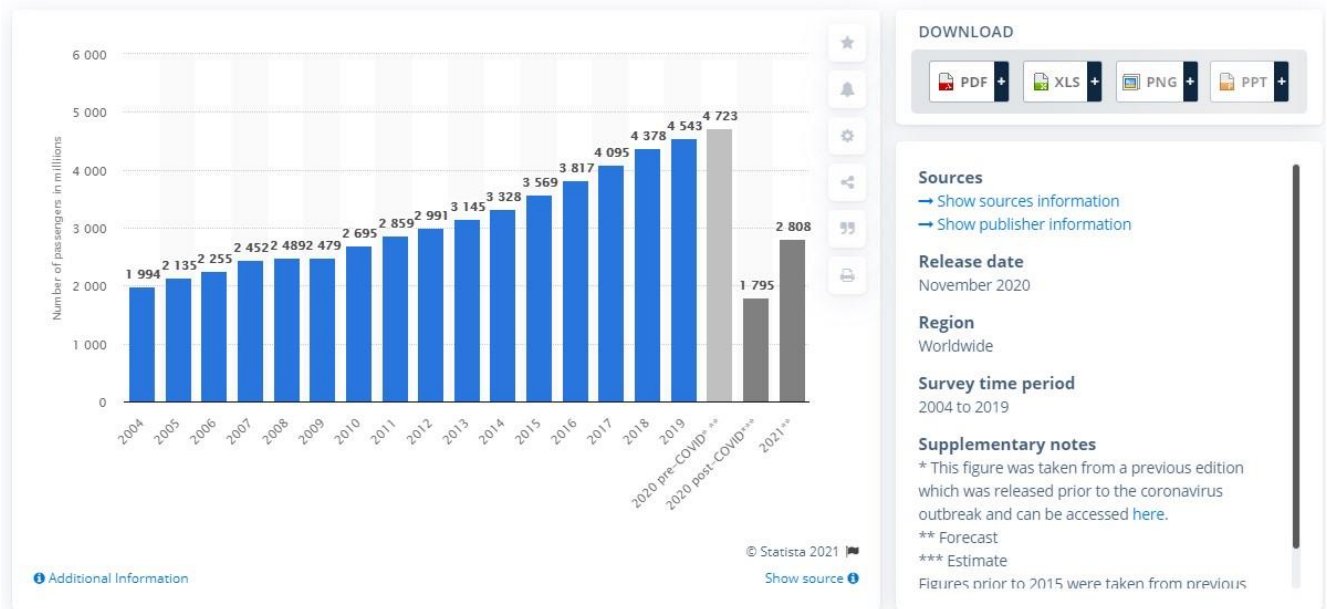
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Available at:
https://www.seatguru.com/airlines/Norwegian_Air_UK/Norwegian_Air_UK_Boeing_787-9.php
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THOMAS, M., 2017. *Low Fares And Snack Fees—How No-Frills Favorite Norwegian Air Went Global.* [En ligne]
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Number of schedule passengers boarded by the global airline industry

Number of scheduled passengers boarded by the global airline industry from 2004 to 2021
(in millions)



Summary of passenger and freight traffic

SUMMARY OF PASSENGER AND FREIGHT TRAFFIC

Passenger and freight traffic



LOAD FACTOR
81.9%

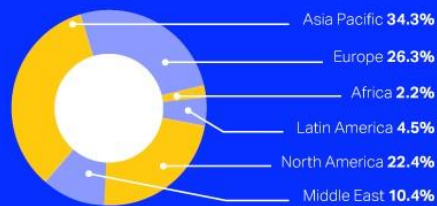
Revenue Passenger-Kilometers (millions):
8,329,776
Available Seat-Kilometers (millions):
10,174,828



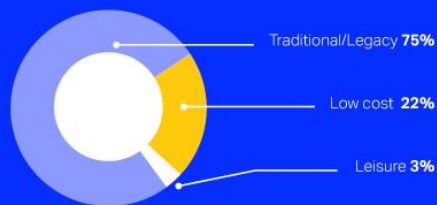
LOAD FACTOR
49.3%

Freight and Mail Tonne-Kilometers (millions):
262,333
Available Freight Tonne Kilometers (millions):
532,000

World scheduled passenger and freight traffic by region of airline domicile – Revenue Tonne-Kilometres (millions)



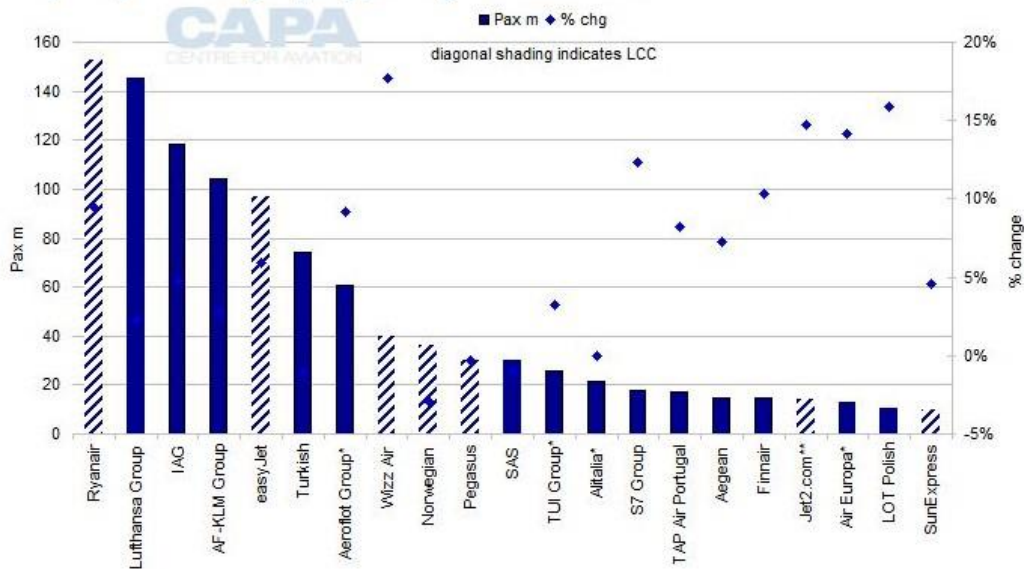
Share of Revenue Passenger- Kilometres by Airline Type



Source: IATA WATS 2019. For more information, visit www.iata.org/wats

Europe's top 20 Airlines groups by passenger number

Europe's top 20 airline groups by passenger numbers: calendar 2019



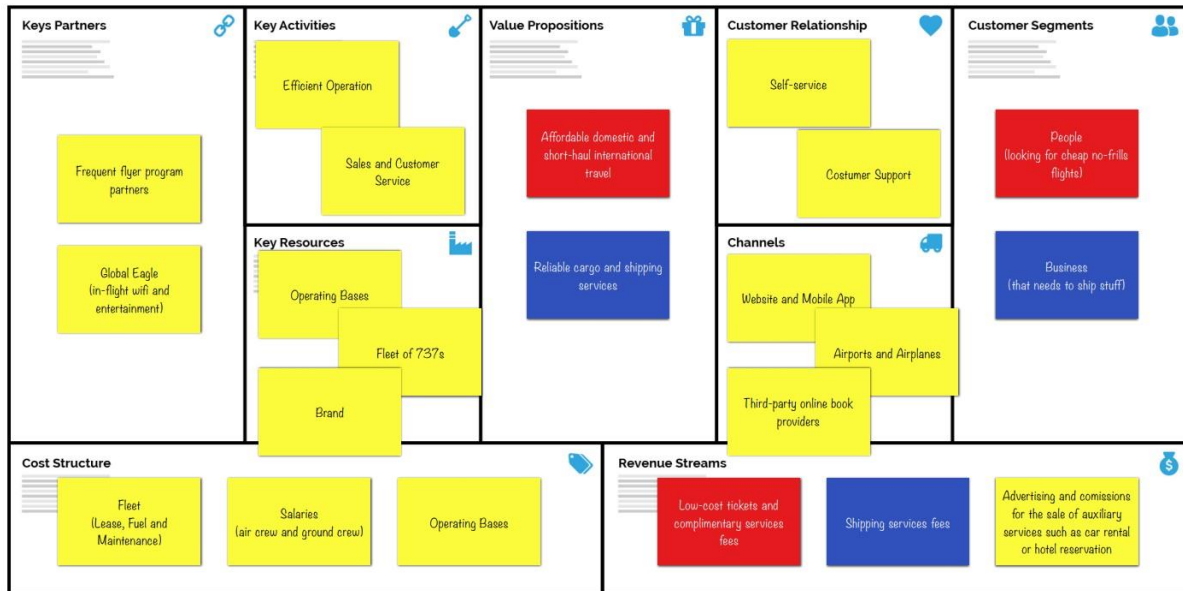
*Indicates 2019 passenger numbers not yet reported or not available; figures are CAPA estimates based on Nov-2019 YTD growth, calendar 2019 seat growth data from OAG, or other available data.

**Figures for 12 months to Sep-2019.

Source: CAPA - Centre for Aviation, airline company traffic reports.

Southwest Business model schema

Southwest® - Business Model Canvas



Norwegian Air Shuttle Long-haul routes map

