Civil Aviation in an Age of De-Regulation

Social Risks and Benefits

Darragh Golden and Anders Underthun

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Resymé/Abstract:

The objective of this report is to assess important developments in the global aviation industry and how this affects civil aviation in Norway and Europe. The challenges brought about by deregulation and the emergence of low cost carriers (LCCs) as well as more recently, the 'Middle East 3' airlines (Emirates, Etihad Airways and Qatar Airways), call for major political attention from a range of stakeholders. With this in mind, the report draws on a wide literature, both geographically and chronologically speaking, with a view to drawing insights from experiences of deregulation and how this may entail both social benefits and costs.

Emneord / Key words:

Civil Aviation, Deregulation, Employment Relations

Preface

This report has been funded by the Norwegian Confederation of Trade Unions (LO) with a mandate of providing a comprehensive academic review of the consequences of deregulation in civil aviation. As such, the report is based in its entirety on secondary sources. The work was carried out from June 2016 until the end of August 2016. Darragh Golden is the main author of the report, with Anders Underthun as a supporting author.

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Oslo, 31st of August 2016

Darragh Golden Anders Underthun

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Executive Summary

The objective of this report is to assess important developments in the global aviation industry and how this affects civil aviation in Norway and Europe. The report is based on an academic literature review and other secondary sources. The challenges brought about by deregulation and the emergence of low cost carriers (LCCs) as well as more recently, the 'Middle East 3' airlines (Emirates, Etihad Airways and Qatar Airways), call for major political attention from a range of stakeholders. With this in mind, we have drawn on a wide literature, both geographically and chronologically speaking, with a view to drawing insights from experiences of deregulation. An appraisal of the American deregulation experience is provided, which results in various unintended consequences whose ripple-effects continue to shape the sector. In particular, we point to changes in the field of labour, in the broad sense, and the network infrastructure. With regard to the former, it is apparent that a job in aviation no longer carries the prestige it once did. Intense competition has led to increased labour productivity and wage cuts. The example of Colgan Air bears out some of the risks identified with increased pressures and strains in aviation. However, it would be spurious to assume a connection between inferior labour conditions and LCCs.

In terms of network and infrastructure, research identified so-called 'pockets of pain' where fare prices remain high while connectivity remains relatively low. Also, airline consolidation has not delivered the certainty purported by the economic theory. Despite initial innovations by LCCs, these airlines, in terms of service and fares, are now largely indistinguishable from their U.S. legacy counterparts. Today, we can speak of four major U.S. airlines. Consequently, yet another industry is deemed 'too big to fail' and its costs, some of which can be the result of poor decision-making, are borne by the general public. For some, this oligopolistic tendency is best addressed through further liberalization. This raises an important question regarding the efficient market hypothesis and the spatial boundaries of deregulation.

While the European experience of deregulation in the aviation sector, by comparison, has been more piecemeal it has by no means been less complex. On the contrary, a variety of social and fiscal regimes has complicated matters considerably. This heterogeneity has implications for the industry structure, business and employment models as well as regulatory oversight mechanisms. In particular, LCCs adopt different business or employment models thereby defying a 'one-size-fits-all' approach. While intrinsically linked, it is important, for analytical purposes, to distinguish between the business and employment models that are adopted by airlines. Hence, understanding the specific models that LCCs adopt is critical to drafting a relevant and effective aviation strategy.

In addition to the standard employment relationship, typified by the legacy carriers and some LCCs, this report examines four possible employment models that LCCs might use. Approaches can vary whether we speak of pilots or cabin-crew. By providing practical examples, it is possible to discern the increasingly contentious nature of such employment arrangements. For too long aviation has operated under the radar of public imagination. The findings of the so-called Ghent Report from 2015, which highlights the extent of atypical employment in the case of pilots, should not be overlooked. Nor should the potential consequences for flight safety be underestimated. Phenomena such as zero hour contracts and 'bogus' self-employment are becoming increasingly commonplace in the cockpits of aircraft. To boot, young and inexperienced pilots are entering schemes called pay-to-fly (P2F) on revenue-earning flights. There is an onus on politicians to be up to speed on such developments and their deleterious effects on the aviation sector. Equally, there is a responsibility on the media not to be co-opted by industry and to report accurately on such practices. This is in the public interest.

For the best part, we have focused on the different employment and business models adopted by two LCCs that are of particular relevance to the Norwegian context, namely Ryanair and Norwegian Air Shuttle (NAS). Clearly, there is a preference for litigation in the legal arena where loopholes make a mockery of national legal systems. This is especially the case with Ryanair, and the Cocca case is demonstrable of this. This case can also help explain Ryanair's departure from Rygge airport. More recently there is evidence that NAS is becoming just as inclined to challenge, what might hitherto have been taken as granted, in a courtroom be it in Norway or further afield.

In terms of business models, there is a marked difference between the two LCCs. For instance, NAS has created a number of subsidiaries (e.g. Norwegian UK). Since, May 2013, Norwegian has entered the long-haul market to Asia and the U.S. and has created two subsidiaries, Norwegian Long Haul (NLH) and Norwegian Air International (NAI), registered in Norway and Ireland, and with Norwegian and Irish AOCs, respectively. The decision to register NAI in Ireland has been the source of controversy, which is exemplified by the unprecedented delay in the U.S. DOT granting NAI a foreign carriers permit. The principal reason for this is that there is a genuine concern that NAI will operate trans-Atlantic flights with 'crews of convenience' from Asia. NAI deny any such intentions.

Ryanair's corporate structure, on the other hand, is less fragmented; however, the Irish airline has a clear preference for the use of secondary airports, the use of which have been central to its competitive business strategy. This has put airports in direct competition with one another with, at times, perverse outcomes. In doing so, Ryanair seeks to extract concessions from airports. Negotiations take place under the threat of severe service reduction or even complete base abandonment. Furthermore, it is not unusual for such negotiations to be conducted in the public realm. Ryanair has become synonymous with publicity stunts in a bid to build their brand or strengthen their bargaining hand. The Rygge debacle is emblematic of such antics.

While it is possible to discern variations between different airlines with regard to employment models vis-à-vis pilots there is a degree of commonality in consequential terms. The question is whether a culture of safety, integral to the aviation sector, is being replaced by a culture of fear? By removing any semblance of security, through employment legislation or trade union membership, a pilot's future employment is at the whim of the airline bosses. In such an environment, pilots are reluctant to raise their heads above the parapet for fear of being identified as being a troublemaker. Such a development inevitably impinges on the question of flight safety. To demonstrate the risks pilots run in highlighting safety concerns, we present the case of Captain Coleman. This case is indicative not only of the intimidating environment created through atypical employment, but also how regulatory oversight is compromised.

The use of different business and employment models creates procedural ambiguity, which leads to a knowledge gap with regard to airline employees and/or a regulatory gap when it comes to determining with which regulatory agency responsibility actually lies. Individually or accumulatively, such ambiguity negatively affects a culture of safety.

In light of these developments in the European aviation industry, a number of recommendations are made which should inform Norway's aviation strategy. These recommendations can be divided into four broad approaches: i) ensuring the continuance of a culture of safety is paramount; ii) addressing regulatory loopholes that facilitate social dumping by clarifying key concepts such as 'operator' and 'home base' is necessary to create a level playing field; iii) when engaging with the ME3s, a European strategy is essential so as to counter a divide and conquer strategy; and iv) increased demand for aviation must be met with a commitment to well-trained pilots with pay-to-fly schemes being prohibited.

Naturally, these recommendations require political will. In addition, regulatory agencies, including the tax authorities, must work in close cooperation with each other. Addressing social dumping and regime shopping also requires cross-border action and greater coordination between national regulatory agencies, as well as an enhanced role for organized labour, so as to ensure that regulatory and knowledge gaps are closed. While the success of airlines' decisions are reliant on good timing, such a comfort cannot be afforded to the question of regulatory oversight. Hence, political will and the enactment of rules will not suffice. Coordinated and proactive oversight, both within and between countries, is fundamental.

Introduction

The aviation sector is the genuine world wide web. Consisting of a network of airlines and airports that link 'nowhere' with 'somewhere' and vice versa, the aviation industry provides millions of jobs and is key to the sustainability of other sectors of the economy. As Executive Director of ATAG (Air Transport Action Group), Paul Steele (2012), states 'when you realise that aviation, if it were a country, would be the 19th largest economy in the world, supporting 56.6 million jobs and over $2 trillion dollars in economic impact, you really see the scale of air transport.' According to the most recent data, European aviation employment stands at almost 12 million jobs. GDP impact comes in at €707.5 billion. In 2015, 873.4 million passengers were carried by 387 European airlines to 634 European commercial airports. The average regional load factor was 81 per cent. Forecasts suggest that, by 2034, there will be over 5.8 billion passengers worldwide and aviation will support 99 million jobs and $5.9 trillion in global economic activity, a 122 per cent increase on 2014 figures (ATAG. 2016). In Europe, it is estimated that the aviation sector will grow by 3.6 per cent over the next 20 years. Oxford Economics forecasts that the impact of air transport, and the hospitality sector it facilitates in Europe, will have grown to support 17 million jobs (41% more than in 2014) and a €1.2 trillion contribution to GDP, an increase of 86 per cent.

Traditionally, the development of the sector has been consensual in its approach and has involved the key stakeholders including, but by no means exclusively, national governments and regulatory agencies, airport management, airlines, both individually and collectively, and organised labour. As Steele's successor states: 'We are a sector that likes to think long-term and work together on challenges. We provide a responsible and balanced outlook and the ten million people who work in aviation can be proud of what we achieve, daily, annually, and what we will achieve for decades to come' (ATAG. 2016). Decent work and employment conditions have been a cornerstone of the aviation sector and for many this remains the case. However, more recently there have been a number of players whose strategies have had the effect of, directly or indirectly, chipping away at that cornerstone. What are the consequences of this development and what does the future hold for the aviation sector and its stakeholders?

Deregulation is by no means a smooth process nor is it a positive sum game. There are inevitably those that profit from it and those that lose. Some actors are able to maintain a sustainable business, while others have to withdraw from it, not least due to the volatile nature of the industry (Doganis, 2010). Markets can also failand competitive pressures can be paradoxical and lead to a so-called race to the bottom.

Advocators of deregulation highlight the positive effects of deregulation. Here, lower fares, more efficient carriers, greater flight frequency and air travel safety are cited as evidence (cf. Goetz and Vowles 2009). Here, enhanced connectivity, affordable prices and higher passenger volume is heralded for benefiting the wider public by literally opening-up a new world for people. Furthermore, the free movement of labour and services, a cornerstone of European economic integration, would be unimaginable without the possibility of convenient and economical air travel.

As aviation markets have become increasingly deregulated, airlines have been offered new opportunities which provide a chance for greater competition. The rise of the low cost carrier (LCC) sector is one of the most visible impacts of deregulation in both the North American and European markets. The LCCs typically have different business models than the traditional legacy carriers. The legacy carriers have typically used a network strategy where routes extend like spokes from hubs such as Amsterdam (KLM) or Copenhagen (SAS). To extend the scale of these networks, the legacy carriers have also

entered extensive cooperation with other airlines to exploit networks beyond the reach of a single airline. The three major alliances that use this model (One World, Star Alliance and SkyTeam) had a total global market share of approximately 60 percent in 2015 (IATA, 2016). The Low Cost Carriers (LCCs), on the other hand, have typically utilized a 'point-to-point' system without having a hub, and often using secondary airports with lower airport costs. Moreover, the LCCs have typically catered to the leisure market, while the network/legacy carriers have been more oriented towards the business traveler. That said, the models are ideal types. Competing with the LCCs, the legacy carriers also offer cheaper options for ticket purchase, while some LCCs have opted for using primary airports as this is more attractive to customers. The LCCs have also entered the market for business travelling.

Although present from the 1990s, the LCCs really started challenging the so-called legacy carriers in the void following crises such as 9-11 in 2001 and the SARS epidemic a few years later (ILO 2013). In 2011, LCCs accounted for 24 per cent of all aircraft seats compared with just 8 per cent in 2001. The same year, the LCCs had a 36 per cent market share in Europe, 30 per cent in North America and 19 per cent in Asia/Pacific. Other regions, such as Africa and the Middle East, with market shares of around 10 per cent, have also witnessed substantial recent growth in this market (CAPA Centre for Aviation, 2012). A recent additional challenge to European civil aviation is the rapid growth of the so called 'ME3s', or the three airlines based in the Middle East; Emirates, Etihad Airways and Qatar Airways. While widely cited as some of the most successful airlines in recent years in terms of profitability and growth, these airlines have been accused of receiving considerable government subsidies and for sub-standard working conditions for its workers (Trethway and Andriulaitis, 2015). Recent acquisitions and partnerships on routes in Europe may intensify the influence of the ME3s in Europe, and it becomes crucial for the European Commission to come to grips with how to define an 'even playing field'.

Deregulation has revolutionised the airline industry in two distinct ways and based on these two thematic developments this report will be structured.

First, new and challenging demands are placed on the airport industry. Many airports being used by LCCs have, on the one hand, experienced dramatic growth rates in passenger volume. On the other hand, those airports have had to grapple with the challenges that come with servicing the volatile character of such airlines. For instance, Ryanair, in 2010, opened 641 routes and closed 217 with corresponding figures of 512 and 305 in 2011 (Copenhagen Economics, 2012). Hence, LCCs tend to be footloose in their point-to-point approach to airport selection as they seek to maximize the profitability of their networks. Such selection criteria carries consequences for the wider aviation community and beyond.There is a growing amount of academic literature related to the changing nature of the airport industry and the new commercial challenges associated with LCCs. Consequently, the airport industry has being undergoing a metamorphosis such that the airport's role has shifted from that of public utility to that of a dynamic, commercially oriented business, in competition for both airlines and passengers (Graham, 2008; Forsyth, Gillen, Mueller, & Niemeier, 2010). In many parts of the world, the traditional public sector paradigm has been replaced with a more commercial model. As we shall see, airport competition is a phenomenon that has characterized the European experience of deregulation more so than the American one.

The second thematic development by which deregulation has revolutionised the airline industry has to do with different employment models in the aviation sector. The advent of the LCC heralded a new approach to conducting aviation business. This involved new employment models that differ significantly from the traditional employment relationship, but also include variants that retain direct employment, such as Southwest in the US. From being one of the strongholds of traditional industrial

relations and permanent employment, atypical employment is now commonplace in the aviation sector. The extent of this phenomenon, with regards to pilots, was laid bare in a recently published report, known as the Ghent Report (2015). Drawing on the findings of this report and others (e.g. Underthun and Bergene, 2014; Harvey, 2009; Harvey and Turnbull, 2012), we seek to understand how deregulation has a) affected the nature of the employment relationship in aviation and b) what are the consequences of atypical employment for the sector? Answering these questions will provide insight when it comes to making public policy recommendations for Norway's aviation sector, which by comparison to other countries, is of importance to the length and breadth of the country.

Structure of Report

There are significant differences between the North American and European aviation markets in terms of their deregulation experience. To this end, understanding the different dynamics at play between the North American and European market can prove informative on the question of airport competition and employment models. For instance, one discernible difference between the North American and the European context is that in the latter there is a variegated map when it comes to tax and social regimes. Do these regimes structure competition in the European aviation? Hence, a focus on each macro region is necessary to better identify policy recommendations.

In the first section, we will briefly assess the background for deregulation. Then we will turn to the American experience of deregulation, which began in earnest with the Carter administration at the end of the 1970s. Here, we will focus on developments in American aviation post deregulation, with particular attention to the question of employment relations. A product of the liberalization process is the introduction of low cost airlines with Southwest Airlines emerging as a success story. An exemplar for newly established European airlines, the Southwest model was emulated this side of the Atlantic, albeit imperfectly. In the first section we will also discuss the European experience of aviation deregulation as well as the Norwegian context.

The second section is concerned with the first thematic development, i.e. airport competition. The use of secondary airports is a characteristic of the European LCC business model. Their American counterparts, on the other hand, display a preference for multiple hub-and-spoke networks. Here we discuss the implications of airport competition and in particular the question of base abandonment. This is something, which until recently, Norway had not experienced. Section three will address the second thematic development, namely the different employment models adopted by LCCs. As mentioned in the above paragraph, the Southwest Airlines model provided inspiration but with telling differences. These differences will become apparent in the third section where we determine the implications of different employment models for European aviation. Finally, following some conclusions a number of recommendations will be made.

SECTION I

1.1 The Regulation and Deregulation of the Aviation Industry

The aviation industry used to be heavily regulated, both in terms of widespread national ownership in airlines and strict market regulation in terms of pricing and routes offered (Blyton et al., 2003; Underthun and Bergene 2014). On the international scale, civil aviation was based on a regulatory framework with three main components, namely 1) bilateral agreements between states; 2) agreements between airlines on routes; and 3) price agreements that were negotiated through the IATA[1].

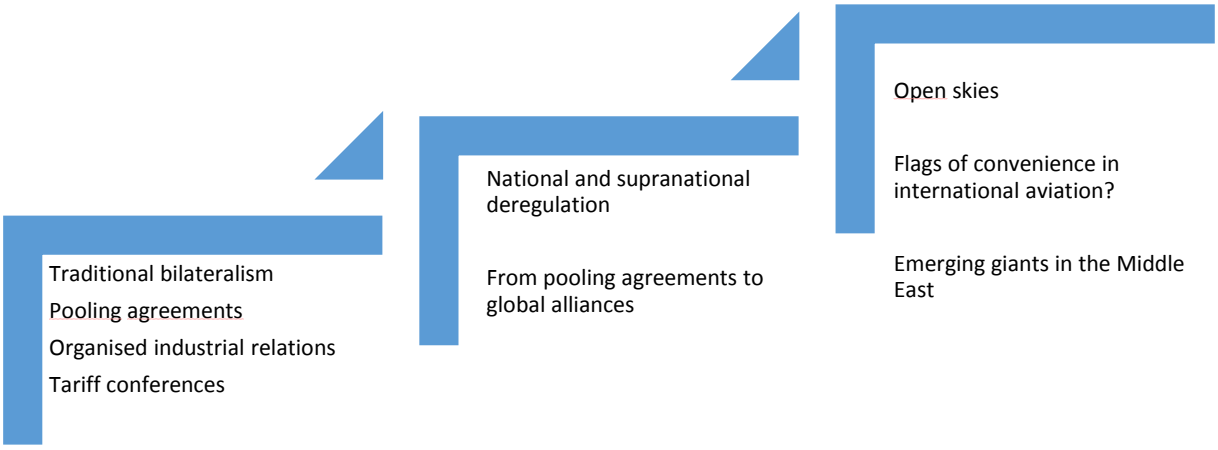
Since the beginning of commercial flying, international flights were regulated by so-called 'Bilateral Air Service Agreements' (BASAs) (Lucio et al., 2001). These are agreements that were made between two sovereign states. This means that that the states involved determined how many airlines would service predetermined routes, how frequent the flights would be and how the profits would be shared. In a time where the states largely controlled all airlines and airports, it was relatively easy for each state to manage the interests of the national airlines or 'flag carriers', and the bilateral agreements also determined ticket prices. This system lingered through most of the 1970s, and it is interesting that civil aviation was exempted from the negotiations that established the single European market (i.e. in the Rome Treaty).

In addition to bilateral agreements, the airlines also established so-called 'pooling agreements' to share profits and costs. One important dimension to these agreements was that the airlines did not have to bare the costs of less attractive routes alone (Bergene & Underthun, 2012) as the loss one airline had on a particular route would be balanced by profits of the same or another airline on another. Finally, there was extensive price cooperation on passenger and freight rates through the IATA, an organization that was set up in 1945 to regulate the international aviation market.

As such, the period from 1919 until the late 1970s was marked by a regulation regime that combined strict limitations to market access, capacity limitations and limited competition on price (Doganis, 2010). This made the aviation market both predictable, but also very closed (Blyton et al., 2003). The regulations were criticised for fostering inefficiencies, reducing incentives for innovation and for hampering competition. However, at the time, civil aviation was seen as a public service that was largely driven by non-profit oriented goals such as regional development, public connectivity and safety. Moreover, the stability and predictability of the system implied a high degree of job security for those employed in the sector (Blyton et al., 2003),something that contrasts the developments that we point to later in this report.

[1] The International Air Transport Association (IATA) is the membership organisation for a majority of registrered airlines across the world.

Figure 1. The gradual deregulation of civil aviation



Source:Underthun (2015)

Processes of supranational and national deregulation in the industry started in the 1970s and the 1980s (in the US and Europe respectively) in order to ensure a more efficient, cheaper and less rigid air service as the system was seen as suboptimal by a range of actors at the time (Doganis 2010). Later, liberalisation was taken even further by establishing international open skies agreements, such as the US-EU Air Transport Agreement[2] (see Fig 1). Doganis (2010) claims that civil aviation is as good as completely liberalized. However, Doganis also asserts that the open skies-agreements do not necessarily mean that the airlines have complete freedom or that the playing field is even.

In the next two sections we will pay particular attention to processes of deregulation and the restructuring of the civil aviation industry in the US and Europe respectively.

1.2 Deregulation of Aviation: The American Experience

The deregulation of the aviation sector began in earnest in the U.S in the late 1970s. Alfred Kahn, a Cornell economics professor and author of two volume *The Economics of Regulation*, was appointed chairman of the Civil Aeronautics Board (CAB), which, since 1938, was responsible for regulating the U.S. aviation sector. Having coined the term 'open skies', Kahn's mandate was to oversee the liberalization of inter-state civil aviation. This appointment put Kahn in a privileged position afforded to few, i.e to test his own theoretical hypothesis with regards to the benefits of deregulation. 'In the real world', Kahn (1971: 193) acknowledged, 'our choices must always be between imperfect systems.' In other words, there is precarious relationship between regulation, on the one hand, and deregulation, on the other. Neither are perfect in their own right. However, in an era characterized by deregulation there is perhaps a need to remind ourselves of the rationale which underpinned regulation in the first place.

The U.S. has spearheaded the deregulation drive, and since aviation other transportation industries (e.g. rail, 1980) have followed suit. The Glass-Steagall Act in 1999serves as a stark reminder of the negative aspects associated with financial deregulation. However, unlike financial deregulation, the deregulation of the aviation industry in the U.S. is, broadly speaking, seen as a success story (e.g.

[2] The agreement was amended in 2010, and from 2011 is also includes Iceland and Norway.

Borenstein and Rose, 2008). Lower airfares, more destinations and increased passenger volume are cited as evidence. This may be the case, but a broad-brush approach risks overlooking the complexities of the U.S. experience. The question asked here is: after nearly 40 years of deregulation what lessons can be drawn? How has industry structure been effected and does airline consolidation provide less risk and more certainty? And how have relations between management and their employees been affected by deregulation?

Initially, the main American airlines' support for deregulation was tepid, to say the least, with the exception of United. When it became apparent that deregulation implied increased power for management vis-à-vis labour support subsequently increased. The prospect of becoming America's biggest and cheapest airline was the coveted accolade. The case for deregulation was based on a number of economic studies (e.g. Levine, 1965), which highlighted the positive effects of intra-state deregulation in California and Texas. The removal of CAB authority over entry, exit and fares meant that airlines could compete in an open market for any route at any fare. The question of mergers and acquisitions were still subject to oversight by the Department of Transportation (DoT) between 1984 and 1989 and subsequently by the Justice Department. For the best part, the airline industry has enjoyed an unfettered run when it comes to mergers and acquisitions. Although the anti-trust division of the Justice Department did flex its muscle and blocked the proposed merger between United and U.S. airlines in 2001 and again more recently in 2013 between American and U.S. airlines. The latter merger was blocked despite the approval of a federal bankruptcy judge and the fact that all three unions representing American employees, including pilots, flight attendants and mechanics, backed the merger plan.

During the 1980s there were numerous new entrants to the airline business. Subsequently, the industry underwent considerable re-structuring. A number of airline mergers happened in the second half of the 1980s. Since, mergers and acquisitions have become a feature of the industry with over 35 completions (A4A, 2016a). More seriously perhaps, numerous airlines have entered Chapter 11 bankruptcy proceedings, not to exit the industry but rather to break labour contracts and/or remove pension costs onto the taxpayer. As can be seen from Figure 2 and Table 1, the aviation sector represents the largest sector making claims to the public pension benefit guarantee system. Since deregulation there have been well over 100 airline bankruptcies (A4A, 2016b) causing much disruption and uncertainty.

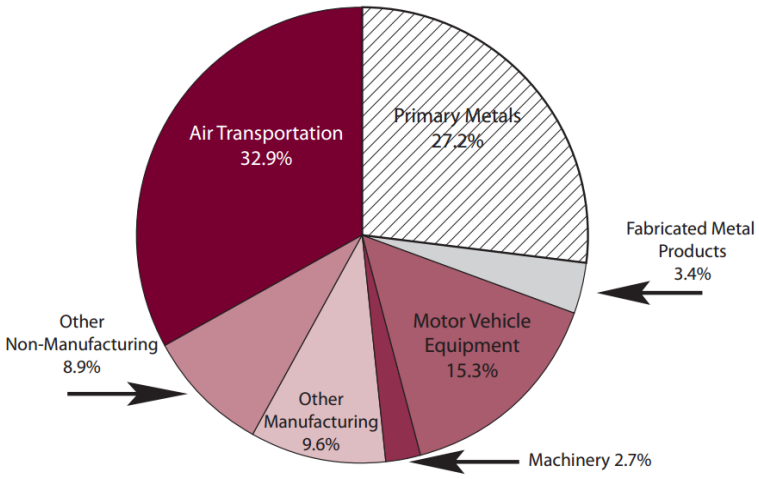
Writing in 1988, Kahn passed assessment on the impact of deregulation after ten years. He expressed surprise at the financial uncertainty of many airlines and the extent of market instability resulting from deregulation. Bankruptcies, liquidations and merger activity wreaked havoc, not only on creditors and shareholders; but also, and most dramatically, on airline employees. Kahn (1988: 316) acknowledges: 'I doubt that most of us were fully prepared for the explosion of entry, massive restructurings of routes, price wars, *labor-management conflict*, bankruptcies and consolidations and the generally dismal profit record of the last ten years' (emphasis added). Kahn, nevertheless, felt that time would vindicate him and that these 'surprises' would amount to a short-term adjustment issue, but this, as we shall see below, has not necessarily been the case.

The 9/11 terrorist attacks represented an unprecedented attack on the U.S. and a stark reminder of the consequences of security failure (Thomas, 2003). The attacks resulted in profound consequences for the American airline business with a ripple effect being experienced further afield. The grounding of fleets for the best part of a week threatened the financial survival of numerous airlines. Securing the financial future of the airline business required a government bailout with $5 billion in direct assistance and the establishment of a $10 billion loan fund for distressed airlines. Notwithstanding this financial assistance totaling $15 billion, there have, since 2000, been approximately 45 Chapter 11s

and 10 Chapter 7s. Until 2011, American Airlines was the only major airline from the 'grandfather' generation that had not filed for bankruptcy. Survival in aviation has become an increasingly difficult game.

Kahn (2004: 3) says that deregulation has 'proved to the satisfaction of the carriers that most travelers are willing to sacrifice comfort for lower fares'. The popularity of LCCs proves this point, not least among those travellers that would not have travelled with standard ticket fees. However, low fares and increased passenger volume comes at a cost. That cost is borne first and foremost by airline employees but also passengers have not escaped untouched. In addition to a long list of negative experiences that customers might plausibly encounter when flying, there is also the risk of being told that one's seat is unavailable as the flight has been oversubscribed. Based on a prediction[3], called the 'no show rate', an oversold flight means that passengers are made aware that they are either being 'bumped' or 'denied'. According to research, the incidence of overbooked flights is increasing. Between January and March, 2014, approximately 134,000 passengers were denied boarding. For the same period the following year this number had increased to 143,000 passengers being denied. The three biggest culprits of overbooking are Delta Airlines, United Airlines and Southwest Airlines (DoT, 2015). To what extent has deregulation affected the nature of employment in the U.S. aviation sector? We engage with this question in the following section.

Figure 2 PBGC[4] Sectors representing claims 1975-2009



Source: PBGC Pension Insurance Data Book (2009: 20)

[3] Different airlines use different models to predict the 'no show' rate. See Ignaccolo and Inturri, (2000).
[4] Pension Benefit Guarantee Corporation

Table 1 Top 10 Firms Presenting Claims (1975-2014)

Firms	Year	Claims (by firm)
United Airlines	2005	7.4 billion
Delphi	2009	6.1 billion
Bethlehem Steel	2003	3.65 billion
US Airways	2003, 2005	2.75 billion
LTV Steel	2002, 2003, 2004	2.1 billion
Delta Air Lines	2006	1.64 billion
National Steel	2003	1.27 billion
Pan American Air	1991, 1992	841 million
Table 1 continued		
Trans World Airlines	2001	668 million
Weirton Steel	2004	640 million

Source: PBGC Pension Insurance Data Book (2014: 8)

1.2.2 The Geographies of Deregulation

It is necessary to say a few words regarding the spatialities of air travel in a post-deregulation era. With the exception of Goetz (2002), an economic geographer, and a few others this topic (i.e. Weller 2009), even today, suffers from 'academic blindness and occlusions' (Budd, 2016: 19). Nevertheless, comprehending the geographies of the airline industry is crucial to understanding the future of air travel. As a starting point, it is fair to say that aviation infrastructure is, geographically speaking, uneven. However, as discussed in greater detail in the European context, dynamic market forces are making an ongoing impression been different phases of expansion and contraction (see Goetz and Vowels, 2009).

Initially, 'deregulation was a short-term disaster in terms of terminal congestion problems' (Newmyer, 1990: 65). Although the Essential Air Service (EAS) programme was created under the Airline Deregulation Act of 1978 to avoid air service losses to regional communities (Brenner. Leet & Schott. 1985), the programme was not always successful and as a result, some airports lost air service. Even where air service was not lost, the frequent airline mergers, changes in aircraft size, and/or service interruptions had negative impacts on smaller airports.

After a merger, service adjustments are inevitable and while some airports might benefit others might lose out. Newmyer (1990: 72) provides an example from the late 1980s when merger activity was particularly high. In 1988, Eastern Airlines decided to cease its Kansas City hub operations after a decision by parent company Texas Air Corporation to focus greater attention on its Denver hubs. Over the same period, another hub operator, Braniff Airlines, began operating at Kansas City. However, some months later Braniff declared bankruptcy and stopped all operations. For a second time Kansas City was left

without a major hub operator in a little over a year. With three large terminal buildings in operation, the result was financially disruptive to the airport operation at Kansas City. Since, a number of other airline operators have come and gone, including Eastern Airlines and TWA.

According to proponents of liberalization, airport governance needs to be more flexible and responsive. As Newmyer (1990: 77) states, '[A]irports themselves can be no less competitive than the airlines serving them.' Such a statement, however, is over-simplistic and ignores the impact of deregulation on airlines. Furthermore, it neglects the complexities of aviation as the following example demonstrates. Reductions and terminations of air service in smaller rural markets are commonplace. Reduction of services has left many regions of the United States without viable air transport options. This is down to commercial carriers shifting their focus to more profitable markets and larger urban areas. The EAS programme was introduced to address this problem, but with limited success (Grubesic et al., 2014). The AIR21 legislation removed hourly restrictions at LaGuardia in April, 2000, for certain flights by new entrants and carriers offering services to small hub and non-hub airports. By the following September, delays at LaGuardia has increased 238 per cent and slot restrictions were re-introduced by the FAA.

Declines in origin–destination passenger traffic at all major airports, save Miami and a few others, provides one of the most graphic illustrations of the extent of the aviation crisis in the US. To address this, Congress, in 2000 and addition to the EAS, introduced the Small Community Air Service Development Programs (SCASDP). The SCASDP is not, like the EAS, limited to providing basic air-carrier subsidies but instead involves financial assistance for airport marketing and research programmes, additional personnel, and aircraft acquisitions. Between 2000 and 2008, the SCASDP's grants ranged from $20,000 to nearly $1.6 million, with the current authorization at $6 million per year through 2015.

It has been well documented that the vitality of regional economies is strongly linked to the availability of air transport (Vowles, 1999; Brueckner, 2003; Graham, 2008; Percoco, 2010; Button and Yuan, 2013). This is because it maintains and enhances economic development opportunities. It is therefore logical to suggest that in addition to social costs, service reductions and base abandonments negatively affect regional economic performance. Notwithstanding the EAS and SCASDP initiatives, there have been service reductions that have affected regional airports disproportionately. According to a study by Wittman and Swelbar (2013) between 2007 and 2012, domestic service at the largest 29 U.S. airports declined 8.2 percent. During the same timeframe, however, service at smaller U.S. airports declined by 21.7 percent.

Goetz and Sutton (1997) and Goetz (2002) have conducted empirical work on the question of aviation networks and connectivity in an era of deregulation. These studies found that notable 'pockets of pain' existed in the southeastern U.S., including airports such as Columbia, South Carolina (CAE); Memphis, Tennesee (MEM); Montgomery, Alabama (MGM); and Mobile, Alabama (MOB), extending northward to Cincinnati, Ohio (CVG), and certain airports in New England and the upper Midwest. In the meantime, additional research demonstrate that these patters have since changed.

Wei and Grubesic (2015: 76-8) conducted a more recent study on the geography of deregulation. They found that 'many rural airports are struggling to attract passengers, provide competitive fares, and maintain a reasonable frequency of service.' 102 of the177 rural airports (i.e. 58 per cent) in their analysis can be considered 'moribund – exhibiting limited frequency of service, few enplanements, low load factors, little network connectivity, and an over-reliance on infrequent charter flights.' However, they also note that 'all is not gloomy' and that there are numerous viable rural airports that exhibit

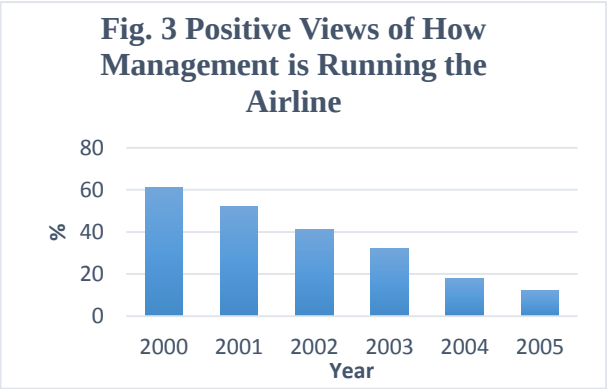
relatively low average fares, a diverse set of network connections and a relatively high number of annual enplanements when compared to the rural national average. Here factors such as 'vibrant local economies' are important, such as the oil industries. In terms of aviation strategy, Wei and Grubesic (2015) warn against a 'one-size-fits-all strategy' as rural communities are diverse, as are their transportation needs. This goes for 'any other large and regionally diverse country.' Norway certainly fits the bill here.

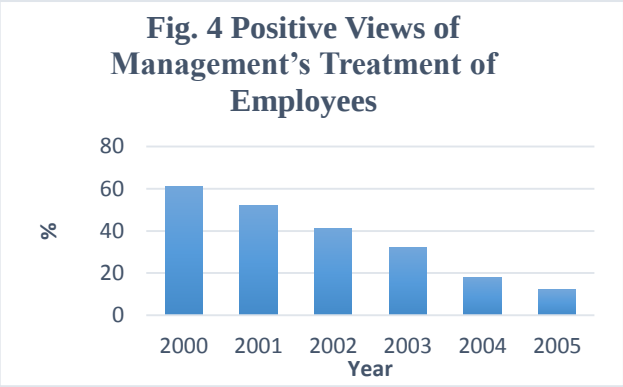
1.2.3 Industry Restructuring and Employment Relations

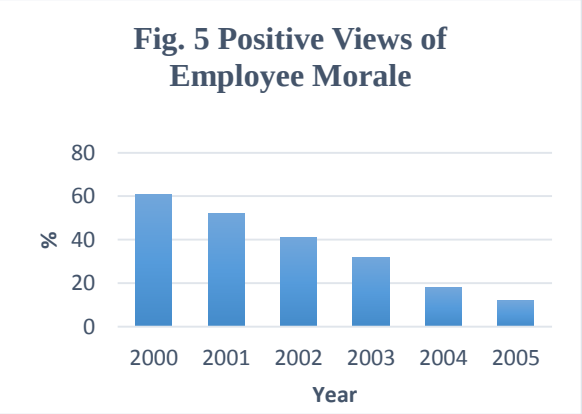
More than elsewhere, union density in the U.S. has fallen significantly over the past decades,falling from almost 30 per cent in the 1960s to 20 per cent in the 1980s. Today, union density in the U.S. stands at 11 per cent[5]. Notwithstanding this overall decline, unions continue to play an important role in the U.S. airline industry and aviation remains the most unionized sector in the U.S. Although the unionization rate in aviation has also fallen by 20 per cent. According to recent data, 49.3 per cent of all workers in the air transportation industry are unionized with 51.6 per cent being covered by collective bargaining agreements (IATA, 2007). Increased competition is cited as one of the main reasons for decline in union membership. In terms of labour costs, labour's share of expenses has been reduced. In 2001 airline operating costs represented 36.2 per cent. By 2008 this cost had fallen by 14 per cent to 21.5 per cent (IATA, 2007). Fuel costs are now the largest single cost item for the (global) airline industry.

Inevitably, the restructuring of the aviation industry impacted on employment relations. In December 2007, the *New York Times* led with a story on the aviation sector which read as follows: 'And you thought the passengers were mad … Airline employees are fed up too – with pay cuts, increased workloads and management's miserly ways, which leave workers to explain to often-enraged passengers why flying has become such a miserable experience.' According to another excerpt, this time from the *Wall Street Journal* (2007): 'Airlines used to offer prestigious jobs with good wages and coveted flight benefits. Now, in the aftermath of aggressive cutbacks, a growing number of airline jobs are more akin to those at a fast-food restaurant. The pay is low, the work is tough and, in a new twist, airlines are having trouble hanging onto workers and finding new ones.' As we will discuss below, airline companies regularly pay lip-service to how much they value their employees but such rhetoric is becoming increasing hollow. In the aforementioned article, Northwest executive vice president is quoted as saying: 'Morale is certainly severely tested. It's hard to keep people enthused.' However, the question that needs to be asked is *why* is it difficult to keep employees enthused and what needs to be done to improve morale?

[5] http://www.unionstats.com/







Source: Wilson Centre for Public Research cited in Bamber et al. (2009)

Wilson Centre for Public Research conducted, between 2001 and 2005, 150,674 interviews of pilots and cabin crew from over thirty airlines. The findings demonstrate that cost reductions come at the expense of labour and impact not only on service quality, but can, as the newspaper extracts above demonstrate, also adversely affect employee morale and in a worst case scenario compromise national security resulting in loss of life. Figures 3 to 5 above provide a visual illustration of how morale between 2000 and 2005 not only declined but declined considerably.

Bamber et al. (2009) conducted the most recent study on employment relations which included U.S. aviation. The research comprised the twelve largest U.S. airlines and staff surveys were conducted between 1987 and 2002. The study and arrived at similar conclusions to those arrived at by the Wilson Centre for Public Research. In addition, however, the study found that deep cuts in pay and working conditions had significantly reduced the labour cost-gap between legacy airlines and low cost carriers. However, they instead placed an emphasis on the importance of the quality of the employment relationship, which was measured by the presence of a positive workplace culture and low levels of conflict during collective bargaining rounds. 'Labor costs reductions may have been a necessary condition for survival at some airlines, but they are far from sufficient for fostering a return to sustained profitability. Labor cost reductions can even be counterproductive when they are carried out in a way that allows total costs to grow and service quality to decline' (Bamber et al., 2009: 84).

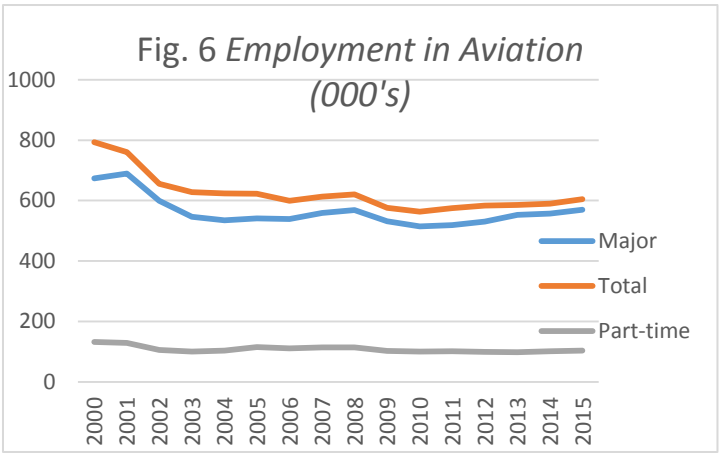
In 2009, the International Transport Workers Federation (ITFW) conducted a global study with the objective of understanding the cause and effects of stress and fatigue on three occupational groups of aviation workers - cabin crew, ground staff, and air traffic services. The study found that across the

board globally, the same decline in overall conditions resulted in important increases in stress and fatigue for workers, albeit with some variations across regions. Increased competition along with the major changes resulting from the 11th of September attacks, are identified as causing the decline in working conditions. According to the ITWF (2009: 107) study the 'increases in fatigue, burnout, job strain, effort-reward imbalance, and social and economic insecurity that occurred in the industry between 2000 and 2007 appeared to have created a powerful predictor of chronic stress and fatigue in civil aviation workers.' Below we address the fatal consequences that fatigue can bring to bear on aviation. In addition, the ITFW study pointed to the importance of having sufficient staff.

As can be seen from Figure 6, total[6] employment levels in the U.S. aviation sector have fallen significantly (c.a. 10 per cent) in the aftermath of the 9/11 terrorist attack. This decrease correlated with a decrease with passenger volume. This trend is to be expected. However, as the industry recovered and passenger volume increased, employment growth did not follow (see Figure 7). Despite passenger volume from 2002 to 2005 rising by 24 per cent, employment in aviation continued to fall. Had the relationship between volume and employment continued, it is estimated that employment by 2006 would have been considerably higher than it actually was. There are a number of factors that explain why this gap breaks with a hitherto and established trend. One such factor has to do with advances in technology, such as newer aircraft and automation. Such innovations have impacted negatively on labour productivity from the flight crew to ground staff and maintenance. In other words, less staff are required to carry out more work.

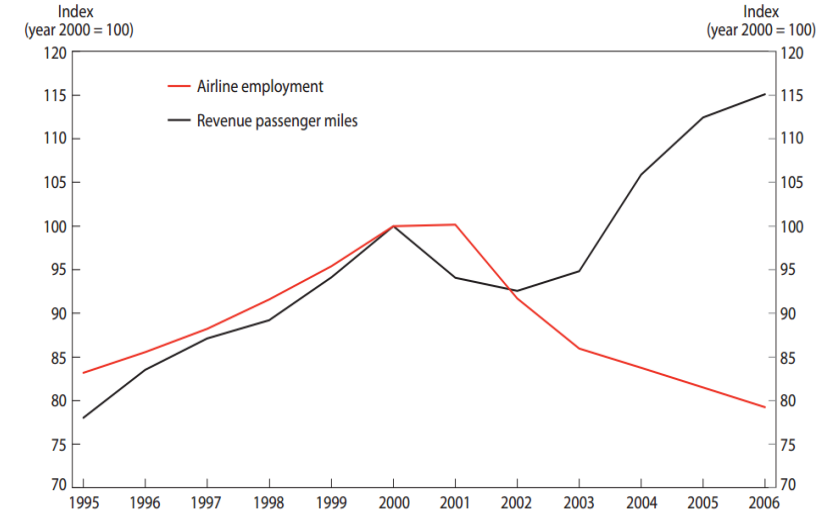
Goodman (2008) makes the argument that, in addition to fuel costs, overcapacity in the industry stymied employment growth. Overcapacity exists when there is a surfeit of capability to provide a service over the level of demand. Paradoxically, the rapid expansion of the industry during the 1990s, a direct result of deregulation, left the industry with an overabundance of airlines. By 2006, the cost of fuel had overtaken labour as the industry's largest single expense, reversing yet another hitherto pattern. However, this meant that labour stood to offset the rising fuel cost. Here, technology, such as online check-in, replaced ground staff. In addition, between 2000 and 2005 unit labour costs fell while productivity increased, an indication of concession bargaining with a view to limiting labour shedding.

[6] Total employment refers to the aggregated data from major airlines (e.g. Delta, American, Southwest) as well as national carriers (e.g. Horizon, Endeavor, Republic). Large and medium-sized regional airlines are also included in the data.



Source: Dept. of Transport (2016)

Figure 7. Indexes of annual airline employment and revenue passenger miles, 1995–2006



NOTE: Employment is based on nonseasonally adjusted annual averages.

Source: Air Transport Association and BLS Current Employment Statistics (cited in Goodman, 2008)

Below we offer an overall appraisal of the American experience, however, before that it is necessary to address what many in the aviation industry opine as the success story of deregulation. The rise of Southwest Airlines to the largest low cost carrier cannot be overlooked.

Southwest Airlines: A Virtuous Employer?

Much has been written about Southwest Airlines, which emerged in the post-deregulation era. Their approach – single aircraft type, use of secondary airports, strong employee culture – allowed it challenge the legacy carriers. Consequently, its market share has increased significantly. In the aftermath of the 9/11 attacks every major carrier, with the exception of Southwest, filed for bankruptcy.

In fact, Southwest Airlines acted as an inspiration for Ryanair's CEO, Michael O'Leary, who is identified as being the one that successfully turned the then moribund airline around. Southwest Airlines approach. However, O'Leary did not adopt the Southwest approach to employee relations. The latter is living proof that an airline can be highly unionized *and* profitable at the same time. Of Southwest employees, 83 per cent belong to a union and the company boasts over 40 years of profitability. Although more recently collective bargaining practices have encountered difficulty over the question of ground staff and increased part-time work. The approach of Southwest contradicts the notion that low cost business strategies are not conducive to high commitment human resource management practices.

This approach is multifaceted and involves training, performance management, conflict resolution mechanisms, work-family balance and a commitment to employment security. With regards to employment security, Southwest has consciously avoided labour shedding regardless of the nature of the crisis or automation trends. In the enlightened words of Southwest co-founder and CEO emeritus, Herb Kelleher:

Nothing kills your culture like layoffs. Nobody has ever been furloughed [laid-off] at Southwest and that is unprecedented in the airline industry. It's been a huge strength of ours. It's certainly helped us negotiate our union contracts. We could have furloughed at various times and been more profitable but I always thought that was shortsighted … Not furloughing people breeds loyalty. It breeds a sense of security. It breeds a sense of trust (cited in Bamber et al. 2009: 92).

Instead of union avoidance strategies Southwest engaged with the unions. Unsurprisingly, Southwest has the highest unionization rate in the aviation sector coupled with a low level of industrial strife. A high commitment approach not only facilitated high levels of coordination across different functions, from ground staff to flight staff, allowing Southwest maintain a prompt and timely service, but also build high levels of operational capacity (Gittell and Bamber, 2010). In other words, Southwest did not fall into the trap of overcapacity, which, as noted above, was a contributory factor in the undoing of numerous other airlines.

Drawing on quarterly data Neal and Kassens-Noor (2011) assess the impact the 2008 economic recession on the aviation sector and in particular on legacy carriers (American, United and Delta) and Southwest. The focus of the study is on the business traveller rather than those travelling for leisure. Typically, this niche market was captured by the legacy airlines (Mason, 2001), however, since 2000 low-cost airlines have encroached on this niche. Activity in aviation is closely linked with the business cycle and what Neal and Kassens-Noor (2011) find is that low-cost carriers, such as Southwest, became more successful in attracting business travellers. While cost might be a determinative factor, arguably, staff-passengers relations are also of importance and employees who believe that management is concerned about them as a whole person - not just an employee - are more productive, more satisfied, more fulfilled. Satisfied employees mean satisfied customers, which leads to profitability. Southwest Airlines epitomize this approach.

Thus far we have given an overview of how deregulation restructured the U.S. aviation industry. Although the academic literature might be a little dated, there is little reason to suggest that matters relating to employment have changed for the better. Aviation staff, including pilots, have in the grand scheme of things been placed under increased pressure and stress resulting in fatigue. Southwest Airlines remains the exception. The following example highlights exactly how such pressures can materialize; and the risks it can bring to aviation.

1.2.4 Fatigue and Flight Safety: The Case of Colgan Air Flight 3407

On the 12th of February, 2009, regional airline Colgan Air Flight 3407 crashed killing all 49 passengers and crew on board, as well as one other person on the ground. Flying on behalf of Continental Airlines, the accident occurred as the aircraft began its approach to Buffalo-Niagara airport. The accident begged questions of the aviation regulatory system in the U.S. and triggered a call by the families of the crash victims for regulatory gaps to be addressed and the employment conditions of pilots to be improved. The National Transportation Safety Board (NTSB) began an investigation the findings of which were issued the following February. The report discovered that the night before flying the captain had spent the night in the company crew room. Here, the quality of the sleep is questionable. At the time of the accident, he had been awake at least 15 hours – 3 hours more than recommended level and the accident occurred at the time of day when the captain would normally go to sleep. Similarly, the first officer was not properly rested. In the preceding 34 hours, she had only gotten a maximum of 8.5 hours of disjointed sleep. The night before the accident, she ahd commuted from Seattle to Newark via Memphis and slept 3.5 hours while travelling, the remaining 5 hours of sleep were had while resting in the company crew room. Consequently, it is likely that she suffered from acute sleep loss.

The NTSB investigation found that fatigue was a factor, however, the report was reluctant to decisively point to fatigue on the grounds that it is difficult to conclusively determine the degree to which a person is fatigued. Notwithstanding this, there was consensus that fatigue was a contributory factor. The NTSB (2010) report did find that 'Colgan Air did not proactively address the pilot fatigue hazards associated with operations at a predominantly commuter base.' And that '[O]perators have a responsibility to identify risks associated with commuting, implement strategies to mitigate these risks, and ensure that their commuting pilots are fit for duty.'

Studies (e.g. NTSB, 1995) show that the duration of the most recent sleep period, the amount of sleep during the previous 24 hours, and split or fragmented sleep patterns are among the most critical factors leading to fatigue-related accidents. Other studies (Roehrs et al., 2003) demonstrate that fatigue-impaired performance is not dissimilar to alcohol-impaired performance and regulatory steps have been taken to address the latter.

Flight crew commuting is particularly challenging. A regional flight crew's home base changes often, and to offset the disruption of frequent relocations, pilots may commute from a home location. According to the FAA (2006), operator fatigue is one of the most persistent hazards in all travel modes, including commercial aviation. While fatigue might be impossible to eradicate entirely there is little doubt that as pilots and crew are put under increasing pressure to be airborne, and spend more time in the sky, the question of fatigue is becoming increasingly prevalent. The potential consequences of not addressing stresses and strains, which leads to fatigue, could well entail the further loss of life.

In the wake of the report, and political pressure on Capitol Hill, reforms were introduced. The FAA implemented several rule changes, as a result of the Flight 3407 accident, in the area of pilot fatigue

and others. The Airline Safety and Federal Aviation Administrative Extension Act of 2010 introduced new qualification standards. The rule requires first officers to hold an Airline Transport Pilot (ATP) certificate, requiring 1,500 hours total time as a pilot. Previously, first officers were required to have only a commercial pilot certificate, which requires 250 hours of flight time. New flight duty and rest requirements for pilots were finalized in December 2011. Unfortunately, it required the loss of fifty lives to enact this legislation.

New legislation puts pressure on pilot supply. The issue will be further complicated when airline pilot retirements will begin to accelerate again after 2012, when the first phase of the 'Age 65 Rule' will end. Retirements will peak in 2019 as over 2,000 airline pilots will be forced to retire annually and by 2030 over 38,000 pilots must retire (Templeton, 2010). Overall, the industry is staring a staffing shortage in the face and there is no strategy in place to address this issue.

Hiring practices in the aviation industry are described as being cyclical as they typically follow economic trends, but according to forecasts, as seen in the introduction, air travel is expected to increase steadily over the coming decade. According to the FAA (2011) the number of airline passengers will grow and continue with over one billion passengers traveling on US airliners by the year 2021. The Bureau of Labor Statistics (2010) estimates an 8% increase of employment for airline pilots, co-pilots and flight engineers by 2018 in order to satisfy the increased demand in air transportation (see Table 2). Boeing (2010) predicts that airlines will require approximately 23,300 new pilots annually from 2010 to 2029.

Table 2 Projected Employment for Aircraft Pilots in 2018

Occupational Title	Employment, 2008	Projected Employment, 2018	Number Change, 2008-2018	Percent Change, 2008-2018
Aircraft pilots and flight engineers	116,000	129,700	13,700	12
Airline pilots, copilots, and flight engineers	76,800	83,300	6,400	8
Commercial pilots	39,200	46,500	7,300	19

Source: Bureau of Labor Statistics (2010)

The question that needs to be answered is who will pilot these planes? And can airlines continue to be a source of attraction to those aspiring to fly given the deterioration in working conditions.

1.2.5 Almost 40 Years of Deregulation: An Appraisal

To summarize, the U.S. aviation provides us with an interesting example of deregulation and its consequences. The removal of CAB's authority over entry, exit and fares and relative ease when it came to mergers and acquisitions has had an impact on the structure of the industry, levels of profitability,

service patterns and airfares. Over the past 40 years or so there has been an on-going battle between legacy airlines and low cost airlines. Goetz and Vowels (2009) identify five distinct periods between 1978 and 2008 where either the legacy airlines or low-cost carriers are in the ascendency. The most recent period, between 2000 and 2008, sees the legacy airlines in decline and growth for the low-cost carriers. However, to rule out the return of the legacy airlines would overlook a historical pattern.

The uncertain aspect of the U.S. airline industry is its financial performance (see Fig. 8). While there have been periods of profitability, there have also been dramatic periods marked by unprofitability, which, given the extent of the losses, is worrisome. In addition, this occurs despite a degree of consolidation in the airline business. As noted above, the cost of Chapter 7s and 11s is unfairly picked-up by taxpayers. Furthermore, this worry is exacerbated by uncertainty surrounding fuel prices. Never during the pre-deregulation period did the aviation industry experience losses akin to those experienced during the 2000s, which amounted to c.a. 35 billion dollars (U.S. Air Transport Assoc., 2006). At one stage the crisis was so severe that the US Air Transport Association (2003: 5) described it as a 'perfect storm' and even admitted that 'the prospect of a forced nationalization of the industry is not unrealistic'.

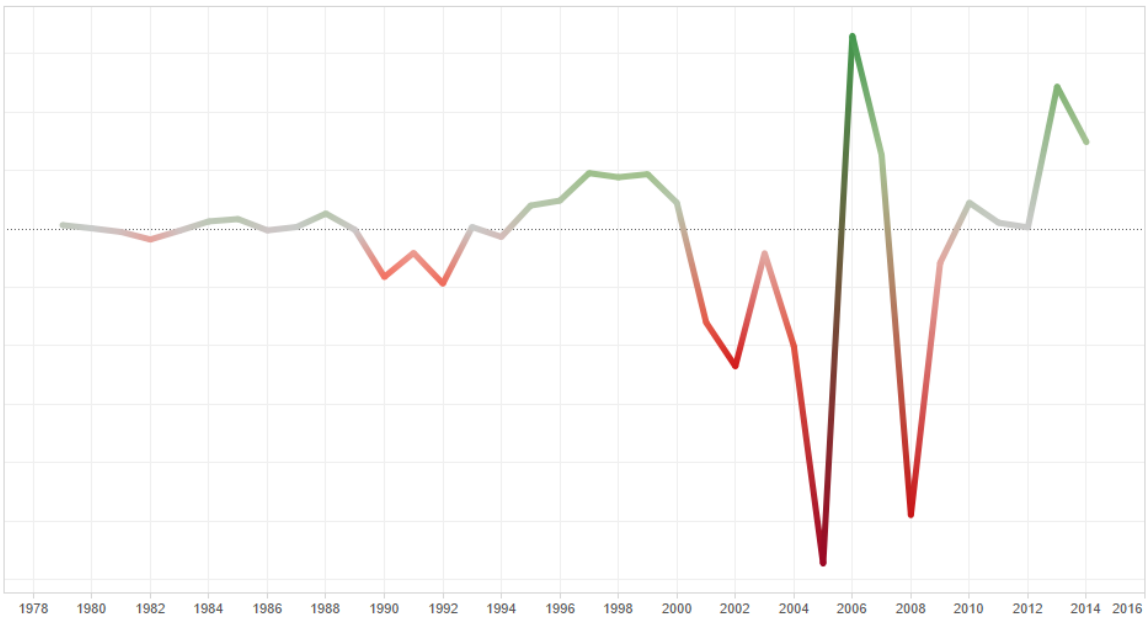
While there are numerous factors that go towards explaining the extent of the losses, it is impossible not to consider the role that deregulation has played. In addition, a considerable degree of culpability is to be laid at the door of the airlines management for poor financial decision-making. It is fair to say that airline consolidation has not delivered the certainty purported by the economic theory. Despite initial innovations by LCCs, airlines, in terms of service and fares, are now largely indistinguishable from their U.S. legacy counterparts. Mergers and bankruptcies are such that today, we can speak of four major U.S. airlines. There are United, Delta, American and Southwest. This consolidation affects competition, as Button (2014: 9) notes 'Southwest's fares are now often as high or higher than those of the legacy carriers, and its services are similar.'

Furthermore, there is a spatial dimension to the deregulation story where 'rural airports and their associated communities often face a wide array of contextual challenges for obtaining adequate transportation services' (Weia and Grubesicb, 2015: 62). Scholars (Goetz and Sutton, 1997; Goetz, 2002; Weia and Grubesicb, 2015) have identified the emergence of 'pockets of pain'. These regions, such as the upper Midwest, have suffered enduringly high fares and less frequency when it comes to flights and inferior service. This can be seen as a market failure and is remindful of Kahn's quip that there is no perfect system. A very recent study by Malighetti et al. (2016) note that where service reduction is significant, the likelihood of an airport recovering is low. Understanding the regional dimension of the aviation industry 'can serve as a powerful tool for enhancing planning and policy for rural air transport' (Weia and Grubesicb, 2015: 78).

It is clear from above that a hitherto trend between passenger volume, on the one hand, and employment, on the other, is no longer the case. This is because the aviation sector is amenable to technological advancements and productivity improvements. Airlines have also been innovative when it comes to questions of staffing. An important factor in explaining the success of the low cost carrier has to do with adopting a different business model to the legacy airlines. We have discussed the characteristics of this low cost model with regards to employment. However, to suggest that success in aviation depends on driving a hard bargain in terms of wages and working conditions could not be further from the truth. Above we presented Southwest Airlines as an example where employees are treated fairly and with dignity. Arguably, it is this approach to employment relations which explains why no

other airline, other than Southwest, has been able to maintain a regular record of profitability at a time when other airlines, both legacy and low-cost, are struggling.

Figure 8 Profitability Trends of U.S. Passenger Airlines 1995-2015



Source: A4A

The vast majority of commentary and academic research (e.g. Borenstein and Rose, 2008) have lauded the changes brought about by the 1978 Airline Deregulation Act. Although as documented above a number of issues did arise as the following extract by a former colleague of Kahn and Supreme Court Judge, Stephen Breyer (2011) identifies the pros and cons of aviation's deregulation experience.

> What does the industry's history tell us? Was this effort worthwhile? Certainly it shows that every major reform brings about new, sometimes unforeseen, problems. No one foresaw the industry's spectacular growth, with the number of air passengers increasing from 207.5 million in 1974 to 721.1 million last year. As a result, no one foresaw the extent to which new bottlenecks would develop: a flight-choked Northeast corridor, overcrowded airports, delays, and terrorist risks consequently making air travel increasingly difficult. *Nor did anyone foresee the extent to which change might unfairly harm workers in the industry.*

The extent of this change brought about by deregulation was non-discriminatory affecting *all* workers in the aviation sector. These changes implied a lifestyle change, which can lead to fatigue and potentially impair a pilots judgement. This as was the case with the Shuttle America accident in Cleveland in 2007 where a pilot misjudged the landing. Fortunately, nobody was hurt, but such was not the case

with the Colgan Air flight. As the chairman of the Colgan Air investigation noted 'if we are serious about safety, we must establish an aviation system that minimizes pilot fatigue and ensures that flight crews report to work rested and fit for duty. Flying tired is flying dangerously, and it is a practice that needs to end' (NTIB, 2010). Just think of the consequences if Captain Sullenberger did not have all his faculties functioning the day he was forced to land an Airbus A320 on the Hudson river. Would all 155 passengers and crew have walked away with their lives? Highly unlikely.

> Labour costs may have been reduced but salaries remain problematic. Whether earning $60,000 or $16,000, it is financially challenging for pilots to regularly relocate their families or hold down multiple residences. Recently, there have been reports that pilots and cabin crew at LA airport are living in camper-vans at the airport's carpark as hotels are too expensive. One does not need a scientific study to determine that the quality of sleep is fundamental. And how safe would passengers feel in the knowledge that the pilot before flying had slept in a camper-van? Unsurprisingly, residents, i.e. pilots and crew, are under strict instructions from their employer not to be identified by name or airline in articles about the car-park village after a story about the phenomenon ran in the Los Angeles Times in 2009 (Wall Street Journal, 2010).

Although employees of air carriers are protected from retaliation for reporting potential aviation safety violations to their employers or the federal government (AIR21), this has not been the case in practice. Even within the FAA there are numerous cases of whistleblowers being silenced. A year before the Colgan Air fatal accident a FAA inspector complained to his superiors about the nature of the airlines operations. However, when he reported concerns to his superiors, he was suspended from important portions of his job overseeing Colgan's acquisition of the Dash 8 aircraft and given a desk job! The inspector in question argued that the regulator was too cozy with Colgan Air. This sentiment re-echoed another case where two F.A.A. inspectors, assigned to Southwest Airlines, testified before Congress that their managers had let Southwest fly its Boeing 737s without inspection of their aluminum skins for cracks, which the safety agency required (*New York Times,* 2009).

In 2005, after mechanics at Northwest Airlines went out on strike, FAA safety inspector Mark Lund began seeing troubling signs. Some of the 4,400 replacement mechanics did not know how to test an engine. Others could not close a cabin door and many seemed inadequately trained. In Lund's view, their lack of experience resulted in dangerous mistakes. Concerned, Lund sounded the loudest alarm he could by sending a 'safety recommendation for accident prevention' to FAA headquarters in Washington stating that 'a situation exists that jeopardizes life' and recommending that Northwest's flight schedule be restricted until such a time that mechanics and inspectors could do their job 'without error'. But instead of harsh action being taken against the airline, the agency punished Lund by confiscating the badge that gave him access to Northwest's facilities and gave him a desk job. The same day Northwest sent a letter to the FAA complaining about Lund's allegedly disruptive and unprofessional conduct. Subsequently, the FAA admitted to treating Lund unfairly (*Bloomberg Business Week*, 2008).

The 1978 Airline Deregulation Act did nothing to open up the American market to international competition. U.S. carriers still had to be 'American citizens' thereby limiting foreign ownership. Some (e.g.

Button, 2014) have argued that this protection from international competition has been to the detriment of the public. As a remedy, further liberalization is advocated. Although aviation is not part of the Transatlantic Trade and Investment Partnership (TTIP)there are those, such as Button (2014), that argue in favour of aviation's inclusion in the EU-US negotiations. We will return to this discussion in Section IV.

1.3 Deregulation: The European Experience

Almost twenty years after the U.S. deregulated its aviation industry, Europe followed suit. This opened up national markets to competition from foreign airline carriers. At the time, the *Economist* wrote, '[T]he dream is to replicate what happened in America in 1978.' One might be forgiven for thinking that this implied replicating the success story of Southwest Airlines. However, we should realise that the aforementioned success story is the exception rather than the rule. This is because 180 new airlines, launched in Europe post de-regulation, failed in keep their planes in the skies. A triad of deregulation packages in 1988, 1990 and 1993 heralded the liberalization of the European aviation industry. However, for numerous reasons, the scenario in Europe would inevitably more complex. The European market differs to that of the U.S. as it is more fragmented. For instance, the number of registered airlines in Europe and Northern America in 2004 is 234 and 43, respectively. In addition, there are a number of principal airlines but they are state-owned flag carriers, such as Air France and Lufthansa. At the time of deregulation, these principal airlines derived less than 50 per cent of their revenue from intra-EU air travel. Furthermore, there are different jurisdictions with differing tax and social regimes, which can complicate matters. While on the one hand, this can be problematic for regulators, it can, on the other hand, provide airlines with potential loopholes, which result in social and fiscal dumping practices. Another important difference between North America and Europe is the question of airport competition, which is central to the business model of some European LCCs and result in an increasing phenomenon called base abandonment.

Writing on the impact of deregulation, the European Commission (1996) concluded that liberalization had had little effect on routes that were run as a monopoly or a duopoly and which represented 94 per cent of intra-EU routes. Where the impact of deregulation was visible was on routes with more than two airlines. Albeit at a slower pace, a similar picture of industry restructuring to that experienced in the U.S. started to emerge in post-deregulation Europe. New entrants started competing directly with national flag carriers on routes. However, not all were successful. For example, of the 144 new start-up airlines, less than half (64) were still flying by early 2000 (ICAO, 2001). Since 2000, three LCAs have dominated not only the skies but also the headlines. Those airlines are Ryanair, Easyjet and Norwegian Air Shuttle (NAS). In the following pages, we will refer more specifically to the business and employment models of Ryanair and Norwegian.

As can be seen from the North American example above, the impact of deregulation has had profound effect on the aviation industry. The effect in Europe has been two-fold. Firstly, new business models and organizational structures have emerged. Secondly, innovative recruitment strategies and employment models have come to the fore. Together, the consequences are far-reaching and inevitably impact on the social rights of employees, employer obligations and employer responsibilities. In a nutshell, the aviation industry has seen a dramatic increase in what can be broadly termed as 'atypical' employment (Gittell & Bamber, 2010; Harvey, 2009; Harvey and Turnbull, 2009/2012; Ghent Report, 2015).

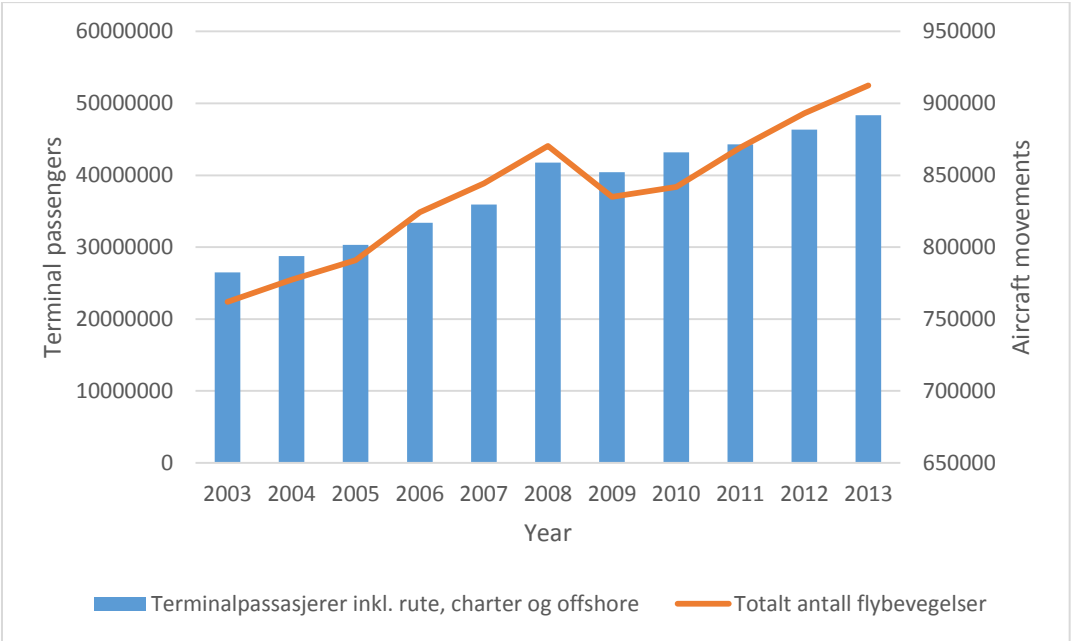
In this section, we will address the question of business models and in particular airport competition. In the following section we will focus primarily on the different employment models that exist within the low cost sector. This will be done with a view to understanding not only the implications for airline employees but also the wider societal consequences including potential safety aspects and the question of employer responsibility and regulatory oversight. Here we will be drawing primarily on a number of recent reports, such as the Ghent report, that have studies the emergence of these trends and their implications. In both sections we will draw on practical examples in Norway and beyond to demonstrate the deleterious effects of the LCC business and employment model for standards in the aviation sector and its traditional stakeholder model.

1.4 The Norwegian Context and Experience of Deregulation

The Ministry of Transport (2016: 7) states in their policy note that '[…] sound infrastructure is a pillar of any modern society […] the Government wants to make this into a national competitive advantage.' The question here is what does this entail. Is it a question of securing (air) infrastructure to support competitiveness at a general level, so as to support other sectors by ensuring connectivity? Or is it about supporting airlines in their attempts to grow as businesses at a global level?

The Norwegian aviation industry has had a formidable growth since the opening of Gardermoen airport in 1998. Between 2003 and 2013, the number of passengers grew by over 87 percent (Figure 9, Avinor 2014), a number which has been rising further since and according to forecasts (e.g. Oxford Economics, 2011) will continue to do so.

Figure 9. Passengers and Total Aircraft Activity in Norway 2003-2014



Source, Avinor (2014)

These numbers show the growing importance of the civil aviation industry. Passengers travel more, and the aviation industry supports processes of globalization in terms of facilitating connectivity.

Julsrud et al. (2011) point out that the aviation industry is paramount to Norwegian businesses, including the hospitality sector. Norwegian businesses travel more, and the aviation industry also supports the freight of Norwegian goods to the global market. For instance, the traffic between Norway and Asia has quadrupled between 1998 and 2009. The Norwegian Enterprise organisation for aviation (NHO Luftfart) argues that the aviation industry has been crucial to the Norwegian hospitality industry, where almost all incoming tourism has entered Norway by plane. Additionally, the Norwegian domestic market is incredibly important to the citizens of Norway. In 2009, Norwegians carried out on average 5.4 journeys per citizen, while 38 per cent travelled abroad by plane the same year (see Fig. 9).

Lian et al (2005) also show examples of how Norway is particularly dependent on air transportation because of the importance of the oil and gas industry, as well as how a sound health service cannot be sustained without the aviation industry. Due to topographic conditions and a distributed population the aviation industry is probably more important to Norway than other European countries (Avinor, 2011).

When considering the political and economic importance of the aviation industry in Norway, it is paramount to ensure a well-functioning market with enough sustainable and affordable routes for customers, as well as making sure that the airlines can operate in a sustainable manner. That said, it can be difficult to balance the different interests that are involved in Norwegian civil aviation. For instance, it can be a challenging task to balance the need for stable health-related air transportation with a fair and open competition regime for public purchases. The need to balance the support regarding the international expansion of domestic airlines, on the one hand, and the need for proper oversight mechanisms when it comes to employment conditions is another example. These dilemmas are not only true for the aviation industry, but is a typical feature of what Bob Jessop (2007) refers to as a restructured competition state. Here, the state is in a continuous dilemma between, on the one hand, maintaining ideals regarding the spatial distribution of economic activities and services, ensuring high quality employment at the national level and providing many forms of security, and on the other hand, facilitating the competitiveness of Norwegian companies at a global level.

Civil aviation illustrates these dilemmas in an intriguing way. Consider, for instance, Norwegian Air Shuttle's 'outbasing' strategies (Harvey, 2009). In addition, there is the upscaling of regulation through Single European Skies 2, on account of the recent changes in the EASA flight time limitations and rest requirements (Underthun and Bergene, 2014).

1.4.1 The Relevant Airlines

The Ministry of Transport (2016) point to four major airlines that have a major impact on Norwegian civil aviation. The largest player is the Scandinavian Airlines (SAS), which had approximately 5,600 employees in Norway in 2012. Founded in 1946, the company was a joint effort by Denmark, Sweden and Norway to establish a robust Scandinavian organization and operation that could bear the investments needed at the time. SAS remains the largest airline in Scandinavia, and despite major pay cuts and redundancies in recent years, the company retains an employment model of predominantly permanent employment on Scandinavian terms. SAS was once branded the 'businessman's airline' (Bjørnelid, 2013), and this is an ideal model that the company still likes to promote, although the company also competes on the leisure market, both domestically, in Europe and on Transatlantic flights.

From being a minor airline when starting in 1993, Norwegian Air Shuttle's expansion and reorganization has been formidable in recent years, and the development very much underlines the logic of expansionary capitalism that has been typical in other industries for many decades (Dicken, 2007). Norwegian has become a major player on the aviation scene, in the same way that other Norwegian enterprises such as Telenor and Statoil also base much of their economic activities abroad. Even though Norwegian started 'outbasing' (Harvey 2009) routes and crew in 2010, a more dramatic turn of events was when the company established an Irish subsidiary called Norwegian Air International in February 2014. Norwegian is one of the companies that has received worldwide attention and critique for creative employment relations through hiring a considerable number of staff through labour intermediaries abroad, such as Adecco or OSM Aviation. According to the Ministry of Transport (2016) Norwegian employs approximately 5,400 staff in Norway.

Widerøe is the largest regional carrier in Scandinavia with an important niche in the more remote Norwegian regions. 60 per cent of the routes are commercial and Widerøe competes with other airlines such as Norwegian and SAS, while the remaining 40 per cent is so called Public Services Obligations, for instance related to governmental purchases of health transport. According Widerøe's company website (2016) the airline employs approximately 3,000 people, and akin to SAS, the company for the most part employs staff directly. Widerøe claims to have service in 47 airports, including a range of small airports in Western and Northern Norway, and this distributed strategy has been strong since Norway started its 'kortbanenett' in 1968 (Salvanes et al. 2001).

The Ministry of Transport also lists Ryanair as an integral part of the Norwegian civil aviation industry due to having established a base at Moss Lufthavn Rygge in addition to flying from Sandefjord Torp and Haugesund. The Ministry reports that approximately 200 people have affiliation with the base at Rygge, but as we will get back to later, Ryanair's commitment to Norway has been under serious scrutiny in recent years. A number of disagreements concerning Norwegian and Ryanair have recently played out in Norway's courtrooms with telling consequences. Arguably, the outcomes of these cases provide a better explanation as to the decisions and business practices of LCCs on Norwegian soil. Nevertheless, it is patently clear that such practices have challenged Norwegian industry standards. Specifically, the decision of Norwegian to establish a subsidiary in Ireland has been interpreted as an overt attempt to circumvent Norwegian labour law with regard to employing third country nationals.

SECTION II

In this section we assess the phenomenon of airport competition in light of deregulation of European aviation. Since, the use of secondary airport have in many cases been preferred to primary airports. This choice has not been without its problems, the most serious of which is complete base abandonment by airlines leaving an airport in a financial bind. Here, we will draw on recent empirical work on this phenomenon which for reasons that will become apparent is a characteristic more closely associated with the European experience rather than the American one.

2.1 LCCs and Airport Competition

Network structure is a critical aspect when it comes to airline behavior in the transportation services industry. The structure of airlines' networks has been affected by deregulation, however, the networks of European airlines differs to those of their American counterparts. Reynolds-Feighan (2007) found that deregulation in the U.S. resulted in a sustained contraction in the network of airports. This differed to the European experience, where deregulation led to an increase in the number of airports receiving jet airlines. In a later study, Reynolds-Feighan (2010) compared the top ten airlines in Europe and Northern America in terms of network structures and their basic geographical structures for the period 1996-2008. The study found that the European airlines generally organize their networks around one or two key hubs within the member state in which they are registered and, by and large, do not operate interactive, continental-wide, multiple hub-and-spoke networks as do their North American counterparts. For example, with Air France, the top 9 airports in its network system are French mainland airports. Also in the UK, 6 of British Airways' top airports are located within the UK. Ryanair is the outlier as it is the only European carrier to have its top airports spread across multiple states. However, as we shall see below Ryanair have been innovative in ensuring that such a practice does not impact on their bottom line.

The number of airports receiving jet air services between 1996 and 2008 increased by 81 per cent! The majority of this increase in traffic comes from LCCs, as legacy carriers continue to focus on single hub-and-spoke airports, which have also enjoyed an increase in numbers. It is argued by Barrett (2004a, 2004b) that the use of secondary airports in Europe has been the most surprising, yet at the same time, radical development resulting from European aviation deregulation. Consequently, airport operators, such as Avinor, are no longer having their role totally dictated by government. This can leave regulatory agencies feeling over stretched.

On behalf of Airport Council International Europe, Copenhagen Economics (2012) conducted a study on the ability of airlines to relocate its services as a means for generating competitive pressure between primary and secondary airports. A key finding was that between 15 and 20 per cent of routes opened and closed each year on account of airlines re-assigning their fleet to maximize profitability. Unsurprisingly, such behavior was more characteristic of low cost carriers. Indeed as we shall see below some airlines are quite aggressive in a bid to secure a more favourable deals; and where there is proximity between airports LCCs will be in a position to play one airport off against another (Gillen & Lall, 2004).

Barrett (2004a) listed Ryanair's seven key strategic preferences as being i) low airport charges; ii) quick 25 minute turnaround time; iii) single-storey airport terminals; iv) quick check-in; v) good catering and

shopping at airport; vi) good facilities for ground transport and vii) no executive/business class lounges. However, these factors were not ordered by Barrett in terms of preference. Having studied the factors informing 8 LCCs' decisions, Warnock-Smith and Potter (2005) found that demand/catchment area was the most important factor, followed by convenient slot times and quick turnaround facilities. The fourth highest ranking factor was low airport charges. However, as we shall see below airport charges are often used as a political football to kick at the government.

Of course, LCCs have breathed a new lease of life into a number of airports and in some cases the passenger growth has been exponential. Passengers through London Stansted went from 2.9 million in 1995 to 19.8 million in 2004, an increase of 574 per cent, at Liverpool passengers grew from 0.4 million to 3.0 million, an increase of 701 per cent. At Prestwick passenger numbers increased to 2 million from 0.2 million, an increase of 828 per cent. While these figures are mind-boggling they pale in comparison with the remaining UK airports which grew by 59 per cent (Dennis, 2007). In a separate study Humphreys, Ison, and Francis (2006) highlight the volatility of the LCCs' operations and found that of the European LCC services that had started between 1997 and 2002, 28 per cent of them had been withdrawn compared to an average of 2 per cent with the legacy airlines. One must consider the public policy implications of this trend where short-term business interests are prioritized by both the LCC and the airport management. We will return to this discussion below with regard to its potential impact on business relationships.

Malighetti et al. (2016) recently published the findings of study which looked precisely at base abandonment by low cost carriers. The study was global in scope and the objective was to observe significant reduction of services by LCCs between the years 1998 and 2014. Their sample included 406 airports and 69 LCCs. 813 airport-LCC pairs (e.g. Gatwick-Easyjet; Stansted-Ryanair etc.) are identified and the pairing was only included where the LCCs offered at least 500,000 seats per year. The descriptive analysis demonstrates the proliferation of airport-LCC pairings. In the years under study the paring in North America and Europe increased from 65 to 148 and from 39 to 282, respectively.

The result of the study identified 109 cases where the LCCs decreased their presence in airports by at least 50 per cent in terms of seats offered. Over one third (33.8 per cent) of the airports suffered from a service reduction of at least 20 per cent. Also, downsizing is more likely where there is a presence of middle-sized alternative airports within 100 km (see also Gillen & Lall, 2004). Here, an airline might reduce services 'in order to warn of what the airport could incur if it leaves completely' (Malighetti et al., 2016: 236). Almost 72 per cent of European airports that suffered a reduction of services greater than 20 per cent operated under competition from nearby airports. In 28 cases, the LCCs completely abandoned the airport and to add insult to injury the likelihood of the airport surviving is low. In Europe, Italy is the worst affected with one case in ten where LCCs completely abandoned airports. 81 per cent of complete abandonments in Europe happen in the proximity of an alternative airport.

The study confirmed that service reduction and airport abandonment was less a feature of the aviation industry between 1998 and 2007 but since 2007, the incidence of reducing capacity has increased as have airport abandonments.

When it comes to important base airports, the study found that both the incidence and probability of service reductions was significantly reduced. In 2014, 80 per cent of European airports saw their passenger volume increase by 3-4 per cent and although the incidence of service reductions decreased somewhat, half of reductions consisted of complete airport abandonment. Table 3 demonstrates that European airports suffered more from service reductions in both relative and overall terms. In Europe,

almost 40 per cent of airports studied suffered from a reduction in services compared to 27.5 per cent in North America. The authors put this down to the use of hub airports over secondary airports.

There needs to be a more long-term assessment of the relationship between secondary airports and LCCs that can be sustainable. One possibility is the negotiation of long-term deals between 5 and 20 years. Malighetti et al.'s (2016) study demonstrates clearly that where LCCs are reluctant to invest, the survival of secondary airports could prove ephemeral. Investment by airlines in terminals increases the switching costs and encourages long-term relations between the airport and the airline. Traditionally, this is how aviation infrastructure developed and ironically LCCs would not be able to operate were it not for this infrastructure. Potentially, investment could be tailored to the LCCs' requirement whilst at the same time bearing in mind the prerogative of airport management and the needs of customers. One such example involves the use of single-storey airport terminals with the use of a pier facility known as a low cost terminal (LCT). This is what happened at Copenhagen airport but, as shall be seen below, this was not enough to convince Ryanair to remain. According to Malighetti et al. (2016) Ryanair is the greatest culprit when it comes to base abandonment, as Norway recently discovered. In the following section we consider the case of Rygge airport which is instructive.

Table 3 Number of downsizings by continent and their percentages with respect to the number of airport-LCC pairs considered

Continent	Reductions in seat capacity by LCCs higher than								
	20%	30%	40%	50%	60%	70%	80%	90%	100%
Europe	177	134	109	84	60	47	39	28	21
	39.8%	30.1%	24.5%	18.9%	13.5%	10.6%	8.8%	6.3%	4.7%
North America	66	46	31	17	11	7	3	1	1
	27.5%	19.2%	12.9%	7.1%	4.6%	2.9%	1.3%	0.4%	0.4%
South America	19	13	7	6	5	5	5	5	5
	35.8%	24.5%	13.2%	11.3%	9.4%	9.4%	9.4%	9.4%	9.4%
Asia	11	6	3	2	1	1	1	1	1
	23.9%	13%	6.5%	4.3%	2.2%	2.2%	2.2%	2.2%	2.2%
Africa	2	0	0	0	0	0	0	0	0
	50%	0%	0%	0%	0%	0%	0%	0%	0%
Total	275	199	150	109	77	60	48	35	28
	33.8%	24.5%	18.5%	13.4%	9.5%	7.4%	5.9%	4.3%	3.4%

Source: Malighetti et al. (2016)

Ryanair and Rygge Airport: A smooth take-off but a rough landing

Ryanair launched its first four European routes with services from London Stansted to Stockholm Skavsta and Oslo Torp in 1997. Hence, the history between Ryanair and Norway is as long as the former's foray into the European aviation market. In March 2010, Ryanair established a base at Rygge and moved most of its Oslo-bound flights from Torp airport. More recently the relationship between Ryanair and Norway has become frayed and Ryanair has announced that from the 29th of October operations will cease at Rygge resulting in the closure of the airport. This decision was taken 'after the Norwegian Government confirmed the introduction of an environmentally unfriendly tax' (Ryanair, 2016).

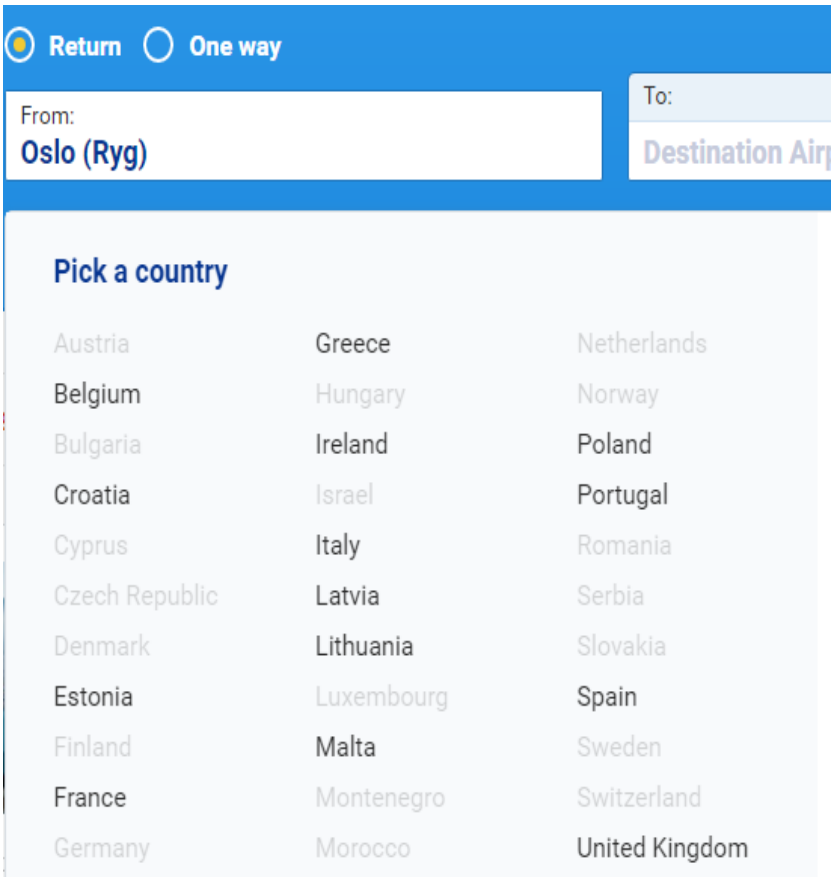
Ryanair have stated that the introduction of the air travel tax[7] (ATT) made it impossible for them to continue services from Rygge airport. Although other airlines have joined Ryanair in a critique of the recently introduced tax, we are not sure that this is the most important reason why they have chosen to abandon Rygge. Rather, we would propose two perhaps more important reasons as to why Ryanair is winding down operations in Norway. The first reason has to do with competition from rival Norwegian Air Shuttle and the second reason has to do with a legal challenge currently pending and due to conclude in September of this year. Here, we are referring to the Cocca[8] case and we will return to the details of the case below, suffice to say here that the ruling could have financial implications for Ryanair's business model.

At the time of writing, Ryanair flies from Oslo Rygge to 30 destinations in 14 different countries (see Fig. 10). According to the Ryanair (2016) website 16 routes have been cancelled. 8 routes have been move to Oslo Torp and 2 routes to Gardermoen. There is no mention whatsoever of the 5 remaining routes and their future. These cancellations have less to do with the ATT tax and instead are based on questions of (low) profitability on these routes as a result of competition from other low cost carriers and/or lack of demand.

[7] Ryanair has, on different occasions, challenged the introduction of air travel taxes (ATT) by national governments. One such case (T-512/11) involved Ryanair challenging an ATT introduced by the Irish government in 2009 on the grounds that exemptions were granted to Aer Arann, which connects rural Ireland including its islands with Dublin and the mainland, thereby constituting illegal state aid. Naturally, the objective of Ryanair was not the imposition of the ATT on Aer Arann, which plays a key role in ensuring the vitality of rural Ireland, but instead its abolition. However, the ECJ found that the exemption did not constitute state aid but indicates the lengths Ryanair are prepared to go to in a bid to pay less tax; regardless of whether the victim was public service obligations.

[8] http://sbdl-eng.com/2014/07/09/supreme/

Figure 10 Destinations offered by Ryanair from Rygge airport



Source: Ryanair website

Table 4 List of Destinations for Ryanair and Norwegian from Oslo

Country	Ryanair[9]	Norwegian
Belgium	Brussels*	
Croatia	Pula*, Rijeka, Zadar* (3)	Dubrovnik, Pula, Rijeka, Split, Za-greb (5)
Estonia	Tallinn* (1)	Tallinn (1)
France	Beziers* (1)	Bordeaux, Corsica, Montpellier, Nice, Paris-Orly (5)
Greece	Chania*, Thessaloniki* (2)	Athens, Corfu, Crete-Chania, Corfu-Keraklion, Kefalonia, Kos,

[9] There is also a flight from Oslo Torp to Liverpool all other 10 destinations from Oslo are included above

		Lefkas Preveza, Rhodes, Santorini (9)
Ireland	Dublin* (1)	Dublin (1)
Italy	Milan B.† (1)	Milan, Pisa, Rome, Sardinia, Sicily-Catania, Sicily-Palermo, Venice, Verona (8)
Latvia	Riga* (1)	Riga (1)
Lithuania	Kaunas, Vilnius‡ (2)	Palanga, Vilnius (2)
Malta	Malta (1)	Malta (1)
Poland	Gdansk†, Krakow†, Poznan*, Rzeszow*, Szczecin*, Warsaw† (WMI), Wroclaw* (7)	Gdansk, Krakow, Szczecin, Warsaw (4)
Portugal	Faro (1)	Faro, Lisbon (2)
Spain	Alicante†, Gran Canaria†, Ibiza, Malaga*, Mallorca*, Tenerife Sth† (6)	Alicante, Barcelona, Bilbao, Fuerteventura, Gran Canaria, Ibiza, Lanzarote, Madrid, Malaga, Mallorca, Menorca, Murcia-Alicante, Tenerife Sth, Tenerife Nth (14)
United Kingdom	Edinburgh*, London Stansted‡, Manchester† (3)	Birmingham, Edinburgh, London-Gatwick, Manchester (4)
Total Destinations	30	53

*Routes cancelled; † Routes transferred to Oslo Torp; ‡ Routes transferred to Gardermoen

Source: Own

Table 4 demonstrates that the increasing presence of Norwegian has provided Ryanair with intense competition on a number of routes. Of the routes cancelled by Ryanair – Dublin, Edinburgh, Malaga, Mallorca, Pula, Riga, Tallinn, – Norwegian provide direct competition by flying to the same airports, but with the advantage of flying from Gardermoen airport, which enjoys better transport connectivity. Interestingly, four of the five destinations which Ryanair failed to mention – Rijeka, Malta, Faro, Ibiza – are also in direct competition with Norwegian. Where there is no direct competition between the two low cost airlines – Beziers in France and Chania and Thessaloniki in Greece – Norwegian provides a more extensive service by operating 5 and 9 routes to France and Greece respectively. There is one outlier, Brussels, for which a plausible explanation can be provided. Brussels is already well serviced by SAS and Brussels Airlines, yet another low cost airline, which flies daily.

2.2 Implications of Service Reductions and Base Abandonments

Airports provide much more than the opportunity to visit a foreign country. In addition to having a positive impact on the local economy, airports are more importantly, and unequivocally, central to developing and maintaining business relationships, which translate into jobs. Notwithstanding the availability and advancements in the standard of telecommunication technology, the currency attached to face-to-face meetings has not been devalued. In many instances, professionals have a preference for face-to-face meetings over the use of a Skype call. And naturally, larger scale conferences would not be possible without people physical gathering in the one place.

An Oxford Economics (2011) study attempted to quantify the 'economic footprint' of the industry in Norway. Accordingly, the aviation sector contributes NOK 47.7 billion (2 per cent) to Norwegian GDP. This total comprises: NOK 22.8 billion directly contributed through the output of the aviation sector (airlines, airports and ground services); spill-over through the aviation sector's supply chain generated NOK 14.1 billion; and NOK 10.8 billion contributed through the spending by the employees of the aviation sector and its supply chain. In addition, there are NOK 13.9 billion in 'catalytic' benefits through leisure travel which raises the overall contribution to NOK 61.7 billion or 2.6% of GDP.

A study conducted by WSJ Custom Studios in collaboration with American Express (2014) surveyed 609 business leaders and found that 56% of respondents were taking the same number of business trips as they had done five years previously. Crowne Plaza Hotels (2013) commissioned another study where 2,000 business people worldwide were surveyed and found that nearly half of respondents felt that they had lost a contract or client due to insufficient face-to-face time. It, like the aforementioned study, found that 81 per cent confirmed that face-to-face meetings are better for building long-term trust and ensuring stronger client relationships.

The findings of these surveys are instructive in two ways. Firstly, it indicates that business travel is stable and that face-to-face meetings remain important. Secondly, it emphasizes the importance of air transport certainty and connectivity. It remains to be seen what the impact will be resulting from the closure of Rygge airport. What is certain is that aviation is key to Norway's macroeconomic performance as the numbers above demonstrate. Unfortunately, negative effects will be felt in the immediate locality with the loss of approximately 1,000 jobs, but there will probably also be implications for business relationships that were constructed and maintained by travelling through Rygge. Pål Tandberg, Rygge Airport's managing director, estimates that another 3,000 to 4,000 jobs are at risk nationwide (Ch-aviation.com 2016). It is unquestionable that the aviation sector plays a key role in the macroeconomic performance of Norway and as we shall see below it is not only international air transport that is important but also domestic air travel. This has been acknowledged in the Ministry of Transport's (2016) policy note.

Airport competition occurs as a direct result of LCCs' business model. However, for analytical purposes, it is important to distinguish between the business and employment models that are adopted by airlines. In the European context, regulatory heterogeneity facilitates 'regime shopping' as well as producing a degree of ambiguity for both employees and regulatory agencies who are responsible for enforcing national labour standards. Arguably, airlines exploit these knowledge and regulatory gaps, which can also undermine flight safety as well as diminish an airline's social contributions. In the following sections, four employment models will be introduced and accompanied by practical examples, which illustrate the complexities and contentiousness of such practices.

SECTION III

Traditionally, a job in the aviation sector, be it in the air or on the ground, was considered a job which provided security and certainty. As seen above, the sector was characterized by unionization and collective bargaining. This was also the case in Europe, and although it not disappeared the standard employment relationship is no longer the norm. If anything the atypical is quickly becoming typical. Below we discuss different employment to models to clarify what exactly we mean by atypical. Suffice to say here that these practices are the source of much contention and some would goes as far to argue that they threated the safety culture, which is integral to the aviation sector.

3.1 Airlines and Industrial Relations: An Overview

Deregulation and labour market segmentation has also implied greater differentiation in terms of industrial relations for airlines (Gittell et al., 2004; Oxenbridge et al., 2010). In Table 5 Bamber et al. (2009) show this heterogeneity through categorizing airlines according to their approach to employees and unions. Where some airlines accommodate unions, other are intrinsically opposed to dealing with them. Recently, Ryanair decided to abandon its base in Copenhagen rather than engage with Danish unions.

Bamber et al. (2009) shows that different airlines have different approaches to industrial relations and employee relations. While some airlines take a collaborative or at least accommodating approach to unions, others resist collective representation. Employee relations is not only about collective representation, and Bamber et al. also divide airlines into those that show commitment towards their employees, in terms of paying attention to both well-being and performance, while retaining a high level of communication. Other airlines emphasize control as the main mechanism of getting the most out of their employees.

Without unions then, the airlines can either choose a committed form of management that entails sound working conditions and a sort of family culture approach (such as Delta or JetBlue), or they can opt for different means of employee control, for instance by banning unions altogether (Bamber et al. use Air Asia and Ryanair as examples). In a similar fashion, airlines have different approaches to industrial relations *with* unions. Bamber et al. note that some airlines recognize unions, but have a fairly high conflict level (US Airways, British Airways as examples, and we can also include Norwegian into this mix given the past few years). Other unionized airlines have a more collaborative approach, with Southwest, SAS and Lufthansa as examples.

Table 5 Industrial Relations in Different Airlines

		Relationship with unions		
Relationship with employees		Avoid	Accomodate	Partner
	Control	Ryanair Air Asia Jetstar	US Airways Quantas British Airways Aer Lingus American, (Norwegian)	Lufthansa SAS
	Commitment	Delta (pre-1994) Jetblue Westjet	Continental Virgin Blue AirTran EasyJet	Southwest

(Bamber et al., 2009: 171)

As such, there is a great variety of industrial relations/employee relations in the aviation industry. However, Cappelli (1985) and others warned at an early stage about the potential pitfalls of deregulation when it comes to industrial relations. After price regulations were lifted it has become more difficult to transfer labour costs to the ticket prices, and the question is whether the different strategies or ideal types presented by Bamber et al. will move into different boxes. Will Southwest be able to maintain their model in the face of higher relative labour costs (see Capa 2013), and can SAS maintain a collaborative model after the substantial concessions made in the 2012 negotiations (see *Aftenposten*, 2012)? However, it is also possible to turn things around, as we have seen increasing pressure on airlines that have had a less collaborative stance on collective representation.

3.2 LCCs and Four Employment Models

Since the mid-2000s there are at least four employment models adopted by low cost carriers, which differ from the traditional standard employment relationship. These are i) the use of recruitment agencies for cabin crew whose labour is then hired to an airline; ii) the use of recruitment agencies for pilots where the pilot registers with an identified accounting firm and is hired by the airline as 'self-employed'; iii) the use of recruitment agencies for pilots whose labour is then hired to an airline. The fourth employment model has to do with young pilots paying airlines or labour intermediaries to fly. Depending on the model in question and where the worker is based there is a degree of complexity and a lack of transparency when it comes to paying taxes and accessing social services. Unwittingly, workers can finds themselves with inferior working conditions and receiving lower pay. Arguably, recruitment agencies and airlines consciously seek to exploit this knowledge gap.

Airlines and the recruitment agencies continually make the case that, as far as they are concerned, there is no overlap between the employee's place of residence, location or base, place of employment and where airline is registered. The examples below clearly demonstrate that the airline believes that the jurisdiction governing the terms and conditions of employment, including social contributions, is determined by where the employment contract and the aircraft is registered. All other factors are conveniently deemed as being irrelevant. The fact that it provides the airline with a competitive advantage, albeit unfair, is of exclusive benefit to its shareholders. However, a potential scenario could materialize whereby legacy airlines, to maintain a foothold in the marketplace, adopt similar measures with detrimental consequences in the long-run for employment protection as well as resulting in increased precariousness and job losses. Such a development runs contrary to a country's macroeconomic programme and raises important questions for national defence too. Here, we present four different employment models with the typical contractual position. We also provide relevant examples of where such models have been used.

Example 1. Cabin Crew, EU Citizen (not Norwegian) with home base in Norway

A man/woman accepts a job at employment agency X, which is registered in another EU Member State.

Employment agency X hires his/her labour out to Airline Z, which has its home base in the same country.

He/she is then stationed at a base in Norway by Airline Z.

Contractual position

The legislation governing the employment contract is that of Airline Z's home country, as this is where the aircraft are registered. Worker benefits such as maternity / paternity leave, sickness absence, redundancy and retirement are subject to the legislation of Airline Z's home country.

Absolute mobility is expected with regards to relocation to any other base with no notice period or compensation.

In the event of overcapacity the employee must accept unpaid leave.

Costs arising from training, uniforms and ID cards are borne by the employee.

Annual leave must be taken in March and April.

There is a probationary period of 12 months with a minimum notice period of 1 week in the first two years.

Employees waive the right to join a trade union.

Employees must live no further than a one-hour journey from the airport where stationed.

Practical Examples

This particular employment model is associated with Ryanair and has been the source of much controversy and litigation across different jurisdictions across Europe. The principal employment agency providing Ryanair with a considerable proportion of its cabin crew is Crewlink International. Both companies are registered in Ireland. As Crewlink is registered in Ireland, the employment contract is governed by Irish labour law as the following statement stipulates:

> The employment relationship between Crewlink Ireland Limited and you shall at all times be governed by the laws in effect and as amended from time to time in the Republic of Ireland. Irrespective of the social security regime to which you are attached your contract is governed by Irish labour law and your entitlements will be those set out by laws of the Republic of Ireland (including but not limited to maternity / paternity leave, sickness absence, redundancy and retirement entitlements). The Irish courts have jurisdiction in all matters relating to the execution and termination of your contract (Crewlink manual, no year).

In addition, the company or client 'reserves the right to terminate your employment at any stage during the probationary period by giving you the statutory notice period' (ibid.). Under Irish law this can vary depending on the length of time as an employee (See Table 6). Furthermore, it is stipulated that employees of Crewlink waive their right to join a trade union.

As the employment contract is governed by Irish labour law, salaries are subject to the Irish tax code. Here, Crewlink provide employees with an Irish bank account despite the likelihood that the employee will not be domiciled in Ireland. Notwithstanding the fact that the employment contract and salary deduction are subject to Irish law, Crewlink acknowledge that the prospective employee will live day in, day out at a Ryanair base. This aspect of permanency is used as a selling point to attract staff to the airline. 'There will also be no planned overnights – Ryanair gets you home to your base every day' (Crewlink 2015). This point has been emphasized in different court hearings in different jurisdictions with different results.

Table 6 Minimum period of notice

Duration of employment	Minimum notice
13 weeks to 2 years	1 week
2 years to 5 years	2 weeks
5 years to 10 years	4 weeks
10 years to 15 years	6 weeks
15 years or more	8 weeks

Source: Citizen Information (2016)

In 2014, Norwegian followed suit establishing two new companies, Cabin Services Norway (CSN) and Cabin Services Denmark (CSD) (Underthun and Bergene 2014). Subsequently, between 800 and 900 Norwegian employees and around 250 Danish employees that were transferred to the new companies.

Below we examine a number of different cases which involve Crewlink employees, working for Ryanair. These cases raise the important question with regards to the jurisprudence governing the employment contract. In other words: where is home? As can be seen, national courts have interpreted this question differently.

Belgium, 2013

- Case of 5 Crewlink ex-cabin crew vs. Ryanair.
- The cabin crew employees based at Ryanair's Charleroi hub sought to have their contracts recognised under Belgian law, which could have entitled them to €20,000 in social payments and bonuses.
- Charleroi labour court, explicitly referring to Rome I, ruled that it was not 'competent' to hear the case as Irish law is applicable.

Italy, 2013

- Case of Alessandro Iaccarino vs. Ryanair
- Ex-cabin crew member, Iccarino working at Ciampino airport took a case against Ryanair for unfair dismissal.
- Court ruled itself not competent, as Irish law should apply.

France, 2013/4

- Case of 4 Ryanair employees vs. Ryanair.
- Marseille-based crew, supported by unions, sued Ryanair on the grounds that the latter saved who saved 30% by not paying French social charges between 2007 and 2010.
- Aix-en-Provence criminal court cited Rome I but ruled that such employees are entitled to statutory rights if they work within its territory. Consequently, Ryanair was found guilty of avoiding to pay French social security (€4.5m) and pension contributions (€3m) to the tune of €7.5 million, as well as 450,000 euros of unemployment charges. The airline was also fined €200,000. Ryanair appealed against the judgment but an appeal court upheld the judgement.

Norway, July 2016

- Case of seven pilots and seven cabin crew vs. Norwegian Air Shuttle (NAS)
- The pilots and crew sued Norwegian airline on the grounds that the parent company NAS - and not one of its subsidiaries - is their actual employer.
- The District court of Asker and Bærum District Court ruled in favour of the pilots and cabin crew a by upholding their claim that Norwegian Air Shuttle is their true employer and and that Norwegian has engaged in illegal hiring practises.
-

The above cases demonstrate the ambiguities that national courts must interpret. The French case is seen as setting a precedent. However, this ruling would not have been possible had the French government not introduced a Decree in 2006, which obliged foreign airlines to pay French social security

charges. Recently, question have been asked of Ryanair's operations in Norway. Here, we are referring to the Cocca[10] case, which is worth examining in greater detail as it provides and insight into the chicanery which is central to Ryanair's employment model. Alessandra Cocca, an Italian national, was recruited by Crewlink International in March 2012 and after having paid for training, accommodation, meals and uniform (c.a. €3,500 in toto), Cocca was offered a fixed-term three year contract as a 'Customer Services Agent'/'Cabin Crew' and instructed that she would be based at Rygge airport from April.

According to the contract there is a probationary period of 1 year. After 9 months Cocca was summonsed to Ryanair headquarters in Dublin. This was her first time in Ireland and later she was informed by letter that her employment was being terminated on the grounds that the probation period had not been successfully completed. Feeling aggrieved and a victim of unfair treatment Cocca, with the help of Parat trade union, a instituted proceedings against Ryanair on the grounds, *inter alia*, that the probationary period according to Norwegian law is 6 months.

Moss district handed down the decision that the case is dismissed on the grounds that the Norwegian court, as in the Belgian and Italian cases mentioned above, was not competent. Emphasizing the temporary status of Cocca in Norway the court went on to note that Cocca's salary went into an Irish bank account and taxes were paid to Ireland. In addition, both Crew Link and Ryanair are registered Irish companies and the contract of employment stated that the laws of Irish courts prevailed. Furthermore, seeing that the aircraft was registered in Ireland, the court found, in accordance with the Chicago Convention on International Civil Aviation, that it should be regarded as Irish territory and therefore subject to Irish laws.

Cocca appealed the district court decision to Borgarting Court of Appeal. Cocca's case was supported by Norwegian Confederation of Trade Unions (LO), the Norwegian Union of Commercial and Office Employees (HK) and the Confederation of Vocational Unions (YS). The Court of Appeal ruled in favour of Cocca but Ryanair appealed.

Drawing on a wide breadth of legislative provisions – Lugano and Chicago Conventions, Bussels I- and Rome I-Regulations, ECJ and Norwegian Supreme court cases – the Appeals Selection Committee of the Supreme Court (2014) upheld the decision of the Borgarting Court of Appeal, which ruled that Rygge Airport was the location for her work activity, and emphasized that Cocca received an extra salary for being located in Norway. In addition, the residence requirement of living a maximum of one hour from the airport provided a connection to the area, that the work day started and ended at Rygge airport.

However, the Appeal Selection Committee concluded, that the case must be retried by the Borgarting Court of Appeal due to mistakes in the Court of Appeal's decision with regard to the assessment of the extent of Cocca's tasks on the ground at Rygge Airport. In its second ruling in March 2013, the Borgarting Court of Appeal affirmed that the oversight had not influenced its conclusion, and therefore maintained that Norwegian courts have jurisdiction. The decision was once again appealed by Ryanair to the Supreme Court, but was rejected by the Appeals Committee without any further justification.

The case will now return to the Moss District Court, where the choice of law is to be considered. The hearing is due to take place in September and it is well within the realm of possibility that Norwegian

[10] http://sbdl-eng.com/2014/07/09/supreme/

employment law will be deemed applicable. This could have far-reaching implications for Ryanair's and other multinationals' operational model, how they conduct employment relations as well as their tax affairs. This could have considerable financial repercussions. This is because there is a distinct possibility that Ryanair will have to pay the Norwegian's employers contribution and abide by the same rules that Norwegian companies do.

Example 2 Norwegian pilot residing in Norway

A pilot is hired by Employment Agency C, which is registered in another Member State. Employment Agency C hires the pilot's labour to Airline X also registered in another Member State.

Contractual position

The pilot is employed as 'self-employed'.

The pilot is responsible for timely payment of taxes on income.

The notice period from the company's side is 30 days, save a number of circumstances where termination can occur without notice, including more than seven consecutive sick days.

The notice period from the employee's side is 35 days after the first three months. If the employee fails to comply with the 35-day

notice period, he is liable to pay one month's salary to the company.

Practical Examples

This practice is associated with Ryanair's employment model where employment agencies such as Brookfield Aviation International and McGinley Aviation provide pilots to the airline (*Irish Times,* 2016b). Both employment agencies are based in the UK. The agency sends the pilots to accountants who set up small companies and then appoint groups of pilots as directors. Norwegian also engages pilots that are deemed self-employed (Ghent Report, 2015). Recently, there have been a number of developments with regards to this employment model.

Germany, 2015

- Case of three healthcare insurers (WDR, NDR and SZ) vs. Brookfield Aviation International Limited and McGinley Aviation.
- In July, 2015, German tax authorities carried out a number of coordinated raids in at least four Ryanair bases: Cologne, Neiderrhein, Baden-Baden and Berlin SXF. A number of pilots flying for Ryanair also had their homes raided. The Court heard of 'an especially serious case of tax evasion'. German officials claim Brookfield was responsible for processing the monthly pay for 1,600 pilots and about 300 Irish companies administered by trustees and that '[T]hese companies mainly serve to conceal an employment relationship with Ryanair'.
- The Court found that pilots assigned to Ryanair via a third company and defined as self-employed should in fact be considered

as employees. Their employment status was to be considered as 'bogus self-employment'.

UK, 2013

- Case of Brookfield Aviation International Limited (BAIL) vs. Robertus Johannes Willhelmus Van Boekel (RJWVB).
- BAIL, an English company acting as employment agency for Ryanair, sued ex-Ryanair pilot RJWVB for €5,000 because he stopped flying for Ryanair before the end of the notice period and in accordance with the terms of the contract.
- The Court found that the respective clause in the contract is unenforceable, as the €5,000 is a 'penalty' rather than an amount to cover the extra cost for Brookfield aviation.

Example 3 Third Country Crew

A pilot or crew-member is employed by Employment Agency B in an extra-EU/EEA country. Employment Agency B hires their labour out to airline A2, which is domiciled in another EU Member State and a subsidiary of airline A1, which is domiciled in Norway.

The airline bases the pilot or crew in a country outside the EU with a view to long-haul flights between Europe and destinations outside the EU such as Asia and North America.

Contractual position (for pilots)

The length of the contract is 36 months, with the possibility of extension.

The pilot will be given eight days off per calendar month.

The pilot can apply for extended outstation layover (EOL), which is four or more consecutive days off at a base other than the home base.

The pilot is responsible for the payment of all taxes and charges to the relevant authorities, except where the pilot is a citizen of the country in which airline A1 is domiciled, in which case tax is payable to this country.

The employment agency and the airline rejects liability for any tax matters.

Two days leave are earned per month.

The pilot is entitled to up to 30 days paid sick leave per calendar year.

The employment relationship is governed by the laws of the country outside the EU where Employment Agency B is domiciled.

The contract may be terminated by the employer with just 30 days notice. After six months, the pilot can terminate the contract with a minimum of 90 days notice. If this notice is not given, the pilot must pay one month's salary.

The pilot is not permitted to talk to the media.

Practical Examples

This type of employment model is relatively new and is associated with Norwegian Long Haul (NLH), a subsidiary of Norwegian Air Shuttle (CAPA, 2014). NLH recruited European licensed pilots on Singaporean contracts for a secondary base in Bangkok. These pilots are hired through Global Crew Asia to provide services for Norwegian Air International Singapore (which is not a registered airline or a company in Singapore). The airline uses Thai cabin crew, hired through Adecco Thailand; however, the use of third country nationals is not legal in Norway. Consequently, Norwegian Air International was set-up as a subsidiary in Ireland and an application for an Irish Air Operator's Certificate was granted. Doing so enabled Norwegian to register aircraft in Ireland and, more importantly, use cabin-crew without the necessity of living and working permits. The airline's 787-8/9 Dreamliners are initially registered in Ireland and the Civil Aviation Authority of Norway had given Norwegian Air Shuttle a temporary exemption to operate aircraft not registered in Norway. All of the 787-8 Dreamliners have since been re-registered in Norway, while the 787-9s remain registered in Ireland (Irish Aviation Research Institute, 2016).

Norwegian Air Shuttle (NAS), the parent company of NAI, already has the approval and currently offers 40 routes between the US and the European Union. So why was there a need to create an Irish subsidiary? Norwegian and others have made the argument that the reason is expansion (*Irish Independent*, 2016). According to this argument, Norway is not an EU Member State which means it does not have EU traffic rights and therefore NAS needed to establish a subsidiary in Ireland, an EU Member State. Little or no mention is made of the low tax regime or the lax regulatory environment. Ireland places no restrictions on the use of third-country nationals on board aircraft. Nor does Sweden but comparatively speaking the regulatory environment in the latter is more robust.

NAI applied to the U.S. Department of Transport for a foreign air carrier permit, however, despite a tentative nod, full approval has yet to be granted. Due to the unprecedented delay, the NLH exemption has expired and the company has moved its aircraft back to NAS and asked the Norwegian government for a new exemption. NAS received it and now operates under a wet-lease exemption from the Norwegian government.

The application has caught the attention of the political community on both sides of the Atlantic. The main argument against granting the permit is Article 17 of the EU-US Open Skies agreement which envisaged the potential for social dumping practices and states: 'The opportunities created by the agreement are not intended to undermine labour standards or the labour-related rights and principles contained in the Parties' respective laws.'

Writing in the *Irish Times* (2016a) the President of the Irish Air Line Pilots'Association stated:

> Norwegian has put forward different reasons for seeking this, but the actual answer lies in Irish law allowing "off-shoring" of employment contracts that govern the employment relationship. This means that by establishing an Irish subsidiary, Airline Norwegian can use employment contracts governed by Asian law as the basis for engaging its flight and cabin crew. Pilots and cabin crew on such contracts may well be EU or US citizens but would have no recourse to the protections provided in

> Irish, EU or US employment law. This alone is the reason that unions on both side of the Atlantic object to NAI's proposal.

Capt. Tim Canoll, the President of U.S. Air Line Pilots Association, expressed a similar statement: 'As a result, NAI gains an enormous competitive advantage over US airlines, which are required to do business under one set of US laws and regulations.' Hence, the objection is purely on the undermining of EU-US labour standards that the Norwegian employment model represents.

Recently there have been a number of developments. Firstly, in April (2016) the National Mediation Board (NMB) made an important ruling in a dispute between Norwegian Air Shuttle (NAS) and the Norwegian Cabin Crew Association (NCCA), representing Norwegian Air's US-based crew members. The Board found that NAS is considered a joint employer of its US-based cabin crew despite NAS wanting to defer responsibility of its crew members to staffing agency OSM Aviation. NAS attempted to thwart a vote, which if successful would have resulted in a loss of collective bargaining rights for employees, by arguing that it was not the crew members' employer. Furthermore, NAS claimed that OMS is neither directly or indirectly owned or controlled by NAS. However, the NMB (2016) found otherwise: 'the evidence here indicates that NAS supervises and directs the day to day work activity of the Flight Attendants…the NMB's opinion is that Norwegian and OSM jointly employ the Flight Attendants.' In addition, the Board goes on to make a precedent-setting statement about airlines who attempt to subcontract the work of their flight crews:

> An air carrier cannot subcontract out every essential function including as here, those performed by employees manning the aircraft, and attempt to avoid its legal obligations by stating that none of the companies providing what collectively amounts to the totality of the air operations are air carriers (ibid).

This means that Norwegian crew members are subject to the Railway Labor Act's jurisdiction which bestows collective bargaining rights, provided a majority of employees vote for representation. In August this vote was held with 65 percent voting in favor of representation by the Norwegian Cabin Crew Association (NCCA). Consequently, the NCCA is the first independent union for previously unrepresented flight attendants since the Air Line Stewardesses Association organized at United Airlines in 1945.

Secondly, in July the Norwegian government amended the law with regards to third-country nationals. Consequently, the requirement of residence permits for third-country nationals is revoked[11]. Subsequently, there is talk that Norwegian will re-flag the remainder of the Dreamliner 787-9s in Norway as the advantage offered by Ireland's treatment of third-country workers is no longer relevant. Although, the low corporation tax rate (12.5 per cent) might convince them to stay.

[11] https://www.udiregelverk.no/en/last-changes/2016/week-25/

Example 4 Pay to fly (P2F) pilots with home base outside Norway

A pilot is obliged to pay Airline C €30,000 - €50,000 to fly its aircraft (and passengers) registered in another EU Member State.

Contractual Position

The pilot is contracted to fly Airline C's aircraft for 500 hours.

The pilot will pay a non-refundable fee payable per scheduled block hour.

The pilot receives no remuneration.

The pilot receives no sick-pay.

The pilot receives no annual leave.

Pilot will be dismissed if absent from work for 10 days.

Practical Examples

P2F also known as 'self-sponsored line training' is an employment model associated with a growing number of employment agencies (e.g. Brookfield Aviaition) and airlines (Ryanair, Easyjet, Croatia Airlines). Such schemes are designed to encourage young and newly trained pilots to buy a package of flight hours in the hope that this will improve their chances at finding employment. Typically, these flight hours are part of the 'type rating' – a standard in-house training course on a specific type of aircraft – which is an integral part of every pilot's professional career. There have been a couple of worrisome incidents that have occurred with P2F pilots.

France 2013

- On the 29th of March, Air Hermes, a Greek subsidiary of French airline Air Mediterranee, was landing at Lyon Saint-Exupéry Airport when the aircraft over-ran the runway by 300 metres.
- The BEA[12]'s investigation found that the crew had been on flight duty for almost 15 hours and that this flight duty period 'likely led to crew fatigue' (BAE, 2015a: 100). The investigation also found that the choice of flight crew by the operator was 'motivated by economic considerations', but the crew was 'relatively inexperienced' (ibid).
- The BEA identified a weakness in the training given to flight crew at Hermes Airlines, which were characteristic of a general trend identified in the European Aviation Safety Plan (2013-2016) relating to some operators at the European level. This includes i) inadequate SOP[13]s and shortcomings in their application by crews; ii) outsourced training with instructors not flying for the operator; and iii) a lack of consideration of the trainees' actual experience.

[12] Bureau d'Enquêtes et d'Analyses pour la sécurité de l'aviation civile
[13] Standard Operational Procedures

Norway 2015

- In March, hundreds of Norwegian pilots went on strike over a pay dispute.
- During the strike, which lasted 11 days, Norwegian wet leased aircraft and crew from a number of foreign airlines to avoid the pending cancellations and undermine the striking pilots. One such airline was, Small Planet Airline, a Lithuanian airline which uses P2F pilots.
- According to research by NRK, and using the tracking website Flightradar24, Small Planet operated approximately 50 flights for Norwegian.
- Norwegian claimed that they did not know that Small Planet uses such a scheme and that wet leasing planes and crew from companies that are approved by the European aviation authorities is commonplace in aviaition.

3.3 Employment Models: Discussion

In this section we will discuss the implications of these employment models for the aviation sector. We will also draw on academic literature as well as recently commissioned reports on atypical work in the aviation sector. As far as airlines are concerned the jurisdiction governing the terms and conditions of employment, including tax contributions, is determined by where the employment contract and the aircraft is registered. Even if the employee has never been to the country in question. The different employment models and the different practical examples provided above pose a number of interesting questions and in many ways reflect the increased mobility, which continues to characterise the modern era. Certainly, aviation presents a special case as aircrews, by definition, are mobile and cross-border. To boot, their workplace is international airspace. Consequently, staff may be based in a different state than the one where the airline is headquartered. Such factors contribute to procedural ambiguity. This ambiguity facilitates the business and employment models of LCCs whose over-riding object is to reduce operating costs.

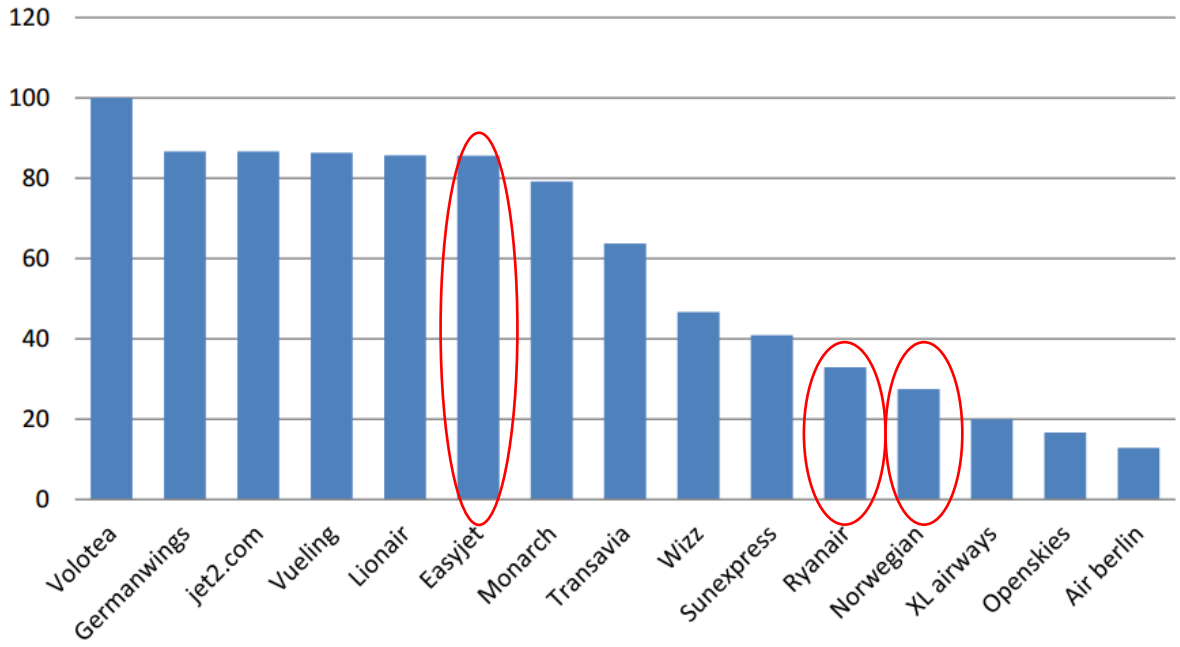
The study *Atypical Employment in Aviation* was conducted by Ghent University and involved over 6,500 pilots being surveyed as well as in-depth interviews with stakeholders in eleven counties, including Norway. According to the key finding in the Ghent report, one pilot out of every six surveyed is working under 'atypical' conditions. Unsurprisingly, LCCs are the prevailing users of such arrangements. In LCCs only half of the pilots are directly employed (53%), while 15 per cent are self-employed, 11 per cent that fly for an airline have 'created' their own limited company, and 17 per cent are working on a temporary agency contract. These deviations from the traditional employment relationship constitutes a clear divide between the LCCs and the legacy airlines. The latter remain committed to the standard employment relationship and this was borne out in the results of the study where atypical employment arrangements are much less prevalent: only 0.6 per cent of pilots are self-employed, 0.4 per cent fly via their own company and 1.7 per cent work on temporary agency contracts. In addition to a clear divide between the LCCs and the legacy airlines, there is also division between young and more experienced pilots.

According to the study, young pilots are most affected by atypical employment arrangements. With more respondents from the 20-30 year age category reporting to fly for LCCs, almost 40 per cent of respondents from the 20-30 year age category report to have no direct employment contract with their airline. Some airlines resort to 'Pay-to-Fly' schemes where the pilot actually ends up paying the airline to fly flights with passengers on revenue-earning operations.

Different airlines display different preferences in their employment model and in their approach to labour relations. Above we provided an overview, here we emphasis the approach adopted by Norwegian and Ryanair. Both airlines have a clear propensity to avoid direct employment contracts (see Fig. 12). Ryanair and Norwegian are the first and third most successful LCCs in Europe, respectively. However, their employment models based on atypical employment is not a necessity. Easyjet, the second largest LCC, offers over 80 per cent of its pilots direct employment contracts (see Fig. 11).

Norwegian has foreign bases in Sweden, Denmark, Finland, the UK, Spain, Bangkok and the USA. At the foreign bases, the cabin crew is recruited from temporary work and employment agencies. 'Their working conditions are in general much poorer than the pilots employed in Norway' (p. 69). Norwegian's piloting arrangement can be divided into three groups: pilots who are 1) permanently employed, 2) hired through temporary work agencies, and 3) self-employed who often hire themselves out to a temporary work agency. Arrangements 2 and 3 have increased significantly since the ban on temporary work agencies and on the leasing of labour was lifted by the Norwegian government in 2000.

Figure 11 Proportion of direct employment contracts per LFA (%)

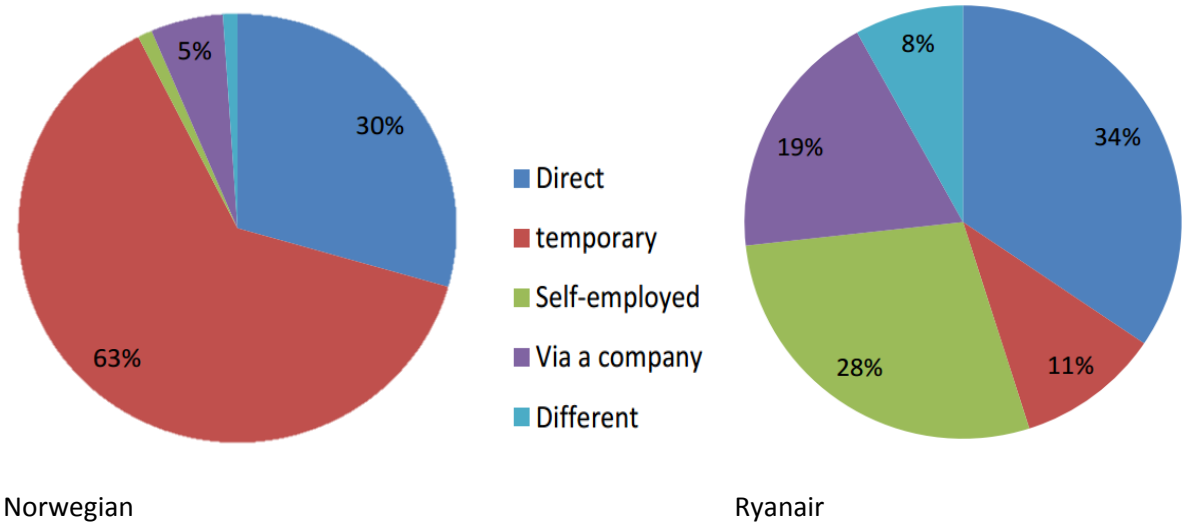


Source: Ghent Report (2015: 166)

As can be seen in Figure 12, Norwegian and Ryanair adopt different employment models with the latter's consisting of different complex arrangements. Of the Norwegian and Ryanair respondents 30 per cent and 34 per cent reported they are directly employed, repectively. Whereas Norwegian has a preference for hiring pilots via a temporary work agency (63 per cent), Ryanair's case is less clear cut: 27 per cent reported being self-employed; 18 per cent to work via a company; and 10 per cent via a temporary work agency. With Norwegian only 1 per cent reported being self-employed and 5 per cent reported to work via another company. Consequently, a significant proportion of Norwegian (59 per

cent) and Ryanair (47.2 per cent) pilots are not paid directly via the airline. Of the Norwegian respondents stating to be self-employed, 21 per cent stated to have no say in the amount of hours they clock-up. Of the respondents stating to be paid per hour without a minimum guaranteed, a high amount of respondents stated to fly for Ryanair (48% of respondents indicating to fly for Ryanair and 75% of the respondents indicating this type of payment).

Figure 12 Percentage of different contract types



Source: Ghent Report (2015: 169/70).

3.4 Labour Relations and Different Business Models

According to the Ghent report (2015: 68) the conditions of employment at Ryanair are to be considered 'an area of concern'. Furthermore, where Ryanair is domiciled is 'irrefutably relevant' (ibid: 67) when it comes to the employment model. It is by no means a coincidence that the number of self-employed pilots in Ireland (c.a. 14 per cent) exceeds the European average. Creaton's (2004) *Ryanair: How a Small Irish Company Conquered Europe* is insightful on the question of employee relations and highlights the stressful environment and the long hours worked by employees. 'Everyone at Ryanair worked long hours. One employee said it was like being on a treadmill constantly moving at a frenetic pace. Ryanair felt that it owned you' (26). According to another employee, '[T]he idea was to recruit a vibrant start-up team, burn them out, then get rid of them and put in a fresh team.'

Furthermore, '[T]he decreasing labour conditions are furthermore aggravated by the lacking trade union recognition in Ireland.' When it comes to labour relations Ryanair is vehemently anti-union (see Table 5). To discourage employees joining a union, they were 'given a shareholding in the company and had agreed not to join a trade union on the grounds that they would have a measure of influence in how the company was run' (Creaton, 2004: 56). Following company restructuring and O'Leary's appointment as CEO, pilots, despite earning only half of Aer Lingus pilots, were asked to accept changes in the terms and conditions of employment and to take substantial pay cuts. In addition, pilots had to accept relocation to new bases with no help in offsetting their relocation costs. Even before pay cuts

were implemented, Ryanair's answer was to hire pilots from Romanian state airline Tarom, from whom Ryanair had wet-leased some aircraft. As the Romanian pilots were on work permits and not members of the Irish Airline Pilots' Association (IALPA), they could be expected to comply with Ryanair's demands. When Ryanair's Irish pilots challenged the renewal of the Romanian pilots work permits, Ryanair threatened to sack the Irish pilots! It was going to be the low road, or no road.

Research shows that by comparison Ryanair have a high passenger to staff ratio (Barrett, 2004, see Table 7). Secondly, staff are expected to multitask as well as being incentivized to up-sell or punish travelers that have not followed strict cabin-baggage rules (Kangis and O'Reilly, 2003). Thirdly, staff (including pilots) must pay for their own training, uniforms and meals while office staff must supply their own pens and is prohibited from charging their own mobile phone whilst at work (Clark, 2005).

Table 7 Number of Passengers per Staff member in Selected Airlines, 2003

Airline	Number of Passengers per Flight Staff member
Ryanair	10,050
Easyjet	6,293
Aer Lingus	1,540
Lufthansa	1,181
German Wings	1,000
Iberia	978
Alitalia	959
SAS	898
British Airways	758

Source: Barrett (2004b)

IALPA has described Ryanair's training practices as 'indentured labour' where having paid €3,000-€4,000 for training new employees 'could not afford to walk out' (cited in O'Sullivan and Gunnigle, 2009: 257). Ryanair also trains existing pilots on new aircraft but only on the condition that a) pilots refuse to join a union, and b) they waive their right to refer to the Industrial Relations Act (2004), which can only be envoked where an employer refuses to engage in collective bargaining. Otherwise the costs of training (€15,000-€20,000) must be repaid. In addition, pay increases have only been offered by the airline to pilots that are *not* members of a trade union.

IALPA officials have re-echoed sentiments expressed by employees' accounts documented above that Ryanair operate a de-facto policy of high staff turnover:

> Let's say you take cabin crew in, get a year/18 months out of them, they haven't moved up an incremental scale if there were an incremental scale. They are, by and large, too young to be in the pension scheme so [Ryanair] is not going to incur a pension cost. They're certainly not going to become established and secure and

> start banging on about their rights and joining trade unions and anything like that so [Ryanair] has a deliberate strategy of keeping people for a short periods of time, working them extremely hard then turn them over again (Interview, IALPA Union Official, cited in O'Sullivan and Gunnigle, 2009: 257).

Ryanair does not hide that non-commitment to staff is of benefit to Ryanair. 'The Company does not anticipate that any material staff costs will be incurred during future periods of the grounding of aircraft, as the relevant staff can be furloughed under the terms of their contracts without compensation' (Ryanair annual report, 2014: 94).

Despite claims to the contrary, Ryanair vigorously pursues an anti-union strategy which 'derives in large measure from its [low cost] business model' and 'seeks to establish cost cutting measures [by] going further than other low cost airlines' (O'Sullivan and Gunnigle, 2009: 264). Unions are seen as the antithesis of successful business and engagement with them is considered detrimental to Ryanair's business model. The clear danger is that other low cost airlines seek to emulate the 'low road' employment relations approach adopted by Ryanair thereby legitimizing anti-social practices. Respectively, the Irish Congress of Trade Unions and the High Court have described Ryanair's strategies as being 'from another age' and 'bearing the hallmarks of oppression' (cited in O'Sullivan and Gunnigle, 2009: 264).

In terms of trade union recognition and collective bargaining rights, Ireland is an outlier. In 2007, a ruling of the Irish Supreme Court with respect to Ryanair[14] held, in essence, that a business domiciled in Ireland retains the right to operate a non-unionised company. Furthermore, the Supreme Court outlined a definition of collective bargaining which clearly contradicts the ILO interpretation of collective bargaining. In other countries where collective bargaining is the norm Ryanair have maintained an intransigent and uncompromising position. The following example demonstrates this:

Denmark, 2015

- Case of LO vs. Ryanair
- The Flight Personnel Union (FPU), representing pilots and cabin crew, and the United Federation of Workers (3F) asked Ryanair for talks in October 2014 when the airline announced its intention to fly from Copenhagen Airport from March 2015. The Irish airline declined. The Danish LO asked the Danish Labour Court to decide whether they can take industrial action if Ryanair continues to reject discussion of collective agreements.
- The Labour Court found that Ryanair must recognise the legal right of the union to issue notice of a main industrial action and that other unions have the right to issue notice of a sympathy strike in support of the main industrial action.

[14] Ryanair v the Labour Court (2007).

Other LCC carriers are more disposed, at least rhetorically, to collective bargaining. In a recent communication to Norwegian staff, CEO, Bjørn Kjos (2016), stated '[A]t Norwegian, we respect the right to third party representation and work towards establishing local agreements in all markets we operate – if our staff so desire.' Unlike Ryanair, Norwegian, being domiciled in Norway, are beholden to Norwegian employment law. Here, Norwegian has modified its business model by establishing subsidiaries with a view to circumventing Norwegian employment law. Again, it is no coincidence that Norwegian Air International is registered in Ireland and this move has clearly placed pressure on Norwegian lawmakers to make amendments with regard to third-country employees.

As noted above, concerns are being mis-reported and as documented by the ETF-TTD's (2014) joint submission to the U.S. DoT 'the business model being pursued by Norwegian Air International raises significant security concerns.' Furthermore, NAI's proposed trans-Atlantic business is premised on an employment model that intentionally avoids the labour standards currently enjoyed by U.S. and European air crews. This is inconsistent with Article 17(2) of the EU-US Air Transport Agreement and contrary to any acceptable notion of 'high labour standards.' The reflagging of Norwegian aircraft to Ireland is akin to the 'flags of convenience' phenomenon in the maritime industry.

3.5 Fragmented Business and Employment Models and the Question of Oversight

The question of effective oversight is fundamental to a safe and functioning aviation system. As noted in the section above the American FAA has been plagued by scandals which effectively undermines its authority. EU Directive 2003/42/EC, Article 8.4 states: 'Member States shall ensure that *employees* who report incidents of which they may have knowledge are not subjected to any prejudice by their *employer*'. The legislation clearly assumes a standard employment relationship between an employee and an employer. However, as the above evidence demonstrates atypical employment arrangement are becoming increasingly typical. This inevitably has implications for reporting procedures as 'problematic' pilots or staff can be easily terminated. The following practical example demonstrates this.

Captain Stephen Colman[15], a pilot with over 25 years experience, was in May 2012 contracted to pilot for Norwegian Air Shuttle via ARPI Aviation Norway. Despite its name, the contract identified ARPI Aviation Norway's office address as being in Poland. In the contract, ARPI Aviation Norway chose Swedish law to govern the contract. The operational base to which Capt. Coleman was assigned with Norwegian was Helsinki, Finland. In addition, the contract contained a specific clause that the crew member has no claim that he is an employee of the lessee airline. In October, 2012, without prior consultation or choice, Coleman was made aware that his labour was being 'hired out' to fly for Norwegian Long Haul (NLH) from Helsinki.

Norwegian company policy, as stated in both the NAS and NLH Operations Manual, Part A (OMA) 1.4.1, requires that the aircraft commander shall ensure all standard procedures, instructions and regulations, as laid down by the Company and various civil aviation administrations, are adhered to by all

[15] The following example is drawn from Captain Stephen Coleman's submission to the U.S. Department of Transport regarding the Application of Norwegian Air International for a foreign air carrier permit. Dated August 18th 2014.

members of his or her crew, in the air and on the ground, and 'on his [sic] own initiative make suggestions for improvements.' Norwegian, including its CEO, continually solicits safety information from its crew. At the start of Summer, 2016, Bjørn Kjos, in a communication to staff pleaded: 'I would like to ask you all to think of what you can do to reduce risk and improve quality in all our operations be it in the office, our technical halls or up in the air.'

Certainly, Colman's testimony challenges the well-intentioned rhetoric of Norwegian management and highlights the significant problems and regulatory failures faced by those who raise safety concerns but are deemed 'problematic' and subjected to adverse employment actions. Pursuant to the instructions and regulations as laid down by Norwegian, Captain Coleman submitted six safety/operational discrepancy reports to both NAS and NLH management. The NAS Chief Pilot, the NLH Training Manager, and the Norwegian Airline Group Safety Manager all failed to reply to any of the reports. A reply from the Deputy Director of Flight Operations (DFO), demanded to know if Captain Colman had contacted CAA Norway. Subsequently, the attitude of Norwegian's management became hostile towards the pilot. On December 31, 2012, Norwegian terminated the employment contract without giving any reason. Happy New Year!

In January 2013, Coleman submitted a comprehensive report to CAA Norway with regards to safety and operational discrepancies at Norwegian, including the punitive action and termination by Norwegian. CAA Norway responded by saying that NAS/NLH management had addressed the issues contained in the reports. However, the Director General of CAA Norway was categorically unwilling to consider any reason, connection or coincidence for Capt. Coleman's treatment and termination by Norwegian, stating: 'Such issues were between employee and employer' and 'Norwegian is free to hire the crew they would like to hire.'

While seeking gainful employment with another airline, Captain Coleman learned that a prospective employer had submitted a U.S. Pilot Record Improvement Act (PRIA) request to Norwegian's Director of Flight Operations and Norwegian's Chief Pilot. Only the respective airline is responsible for generating and retaining training records. Neither officer responded to the PRIA request. Following up, Captain Coleman notified CAA Norway of Norwegian's refusal to comply with US Federal Law. CAA Norway stated: 'The CAA cannot comment on the US Federal Government Pilot Record Improvement Act and whether Norwegian has acted in accordance with the Act.' Captain Coleman then submitted the details of his safety/operational discrepancy reports, treatment and termination by Norwegian, to the numerous regulatory bodies. These are presented in Table 8. As can be seen all of the bodies, with the exception of the Irish agency which did not reply, deemed CAA Norway responsible.

The above example exemplifies the seriousness and contempt with which security concerns and mindful pilots are met. As the following extract from Captain Coleman's submission to the U.S. Department of Transport regarding the Application of Norwegian Air International for a foreign air carrier permit notes there is something rotten in the state of Norway:

> it is abundantly clear that a crewmember who is not a direct employee of the Norwegian Airline Group, and therefore is without union and Norway's legal protections, has no redress if managers at Norwegian take punitive and discriminatory action against them, up to termination and even after. The quagmire of legislative jurisdictions makes such relief extremely difficult, if not impossible. It is implausible

> to suggest that such an abhorrent working environment is conducive to a culture that promotes safety. It is conducive to a culture of fear.

Captain Coleman's concerns about the self-reporting system were also raised in the Ghent report (2015: 69). It is clear from the evidence presented above that a culture of intimidation is inimical to a culture of safety. Furthermore, speaking to the media is abhorred by management and punishable by termination of employment.

In the French investigator's final report on the fatal Germanwings accident in March, 2015, where an Airbus A320 aircraft was deliberately flown into the French Alps by its co-pilot, there were concerns raised over regular medical checks to assess the mental health of pilots. In the final report, BEA (2015b) recommended annual medical checks to prevent mentally ill pilots from taking charge of a plane. Similar practices from transport bodies such as the French rail and nuclear industry were cited as possible examples. The co-pilot, Lubitz, had renewed his aptitude certificate in November 2014 after which he was signed-off on sick leave for a short period. However, the co-pilot did not re-take his aptitude tests after the leave, as stipulated in regulations. Hence, in this tragic event 'the pilot will self-declare his unfitness' failed in this event.

Table 8. Response to Captain Coleman's Query.

Regulatory Agency	Date of correspondence	Response
European Aviation Safety Agency	February 25, 2013	'The Norwegian CAA is the body responsible for collecting of safety related information, safety oversight and law enforcement in the filed of flight operations and safety management.'
Finland Transport Safety Agency	March 14, 2013	'CAA Norway is the competent authority…'
UK Civil Aviation Authority	May 23, 2013	'The fact that aircraft operate based in Helsinki or Gatwick does not alter the responsibility of the Norwegian authority for oversight. CAA Norway is the competent authority.'
European Commission Flight Safety Department	July 4, 2013	'It is not relevant where the aircraft operates or where the commander is based or employed but which state ensures safety oversight, i.e. where the operator has its principle place of business.'
European Aviation Safety Agency	July 9, 2013	'Whether or not there is non-compliance [with EU Ops] can only be made by the Norwegian CAA.' 'We do not agree that it is up to Finland (the state from which you operated) to assess such non-compliance.'
EU Ombudsman	17 October, 2013	'The responsibility to deal with these issue falls under the Norwegian CAA's remit.' 'Norway is not an EU member State, the Commission could not engage in infringement procedure or take other action against Norway.'
Irish Aviation Authority	June 6, 2014	NO REPLY

Source: Coleman (2014)

The BEA (2015b) report also found the young pilot's financial obligations as a factor in causing the accident. The financial consequences of losing his licence would have amounted to €60,000. Although his loss-of-licence insurance would have covered this, the insurance would not have covered the loss of his income. Moreover, the co-pilot had not yet fulfilled the conditions to have his full coverage paid for by the airline. Hence, the consequence of losing his license would most likely have destroyed his professional ambitions. 'Pilots are selected for their high motivation, their passion for flying, and their need for achievement. Therefore losing their right to fly might be difficult to accept for pilots, not only in financial terms, but also in terms of self-esteem, social recognition and job motivation' (BEA, 2015: 89). The BEA made the following recommendations: medical evaluation of pilots with mental health issues; mitigation of the consequences of loss of licence; balance between medical confidentiality and public safety; and promotion of pilot support programmes.

There is more to the Germanwings tragedy than a case of depression and suicidal tendencies and to dismiss the case simply as such is to overlook the lessons that can be learned. There are oversight lessons and a clear need for greater cooperation between health practitioners and aviation authorities where there are aeromedical concerns. While the privacy of the pilot is to be respected, public safety must come first. Countries including Canada, Israel and Norway, already require doctors to alert regulators about aeromedical concerns. The Germanwings report is the first time that an air accident investigator has issued recommendations to the global medical community. The aviation industry is also called upon to find ways to mitigate the economic consequences for young pilots who fear losing their livelihoods if they reveal a mental illness. As noted above, different employment regimes place considerable financial burdens on young pilots which could potentially jeopardize flight safety.

3.6 Overseeing Aviation in Norway

All transport branches have some form of inspectorate in Norway, although there is still an ongoing discussion with regards to models of inspection. To what extent are governmental agencies reactive rather than pro-active? Or is there sufficient and effective coordination between governmental agencies? Should the emphasis be on security or safety and is there a trade off? The aviation sector is defined, by and large, by international standards and agreements. This is especially the case in a post 9/11 environment when security issues were harmonized at the European level. Questions of safety, on the other hand, remained in the national regulatory framework. Yet the two spheres are inextricably interconnected. National aviation authorities are responsible for carrying out inspections and ensuring safety in the sector. To this end, there can be conflict between international rules and requirements, on the one hand, and local contexts, on the other.

In Norway, the working environment responsibility in aviation is, since 2010, divided between the Civil Aviation Authority (Luftfartstilsynet, CAA) and the Norwegian Labour Inspectorate, (Arbeidstilsynet). The objective of this cooperation is two-fold: i) to increase the importance of health and safety for pilots and cabin-crew; and ii) to ensure the necessary cooperation, transfer of knowledge etc. between the two supervisory agencies. Issues concerning health and safety (working environment) are separated from general safety procedures (flight security). CAA inspectors do not ask about the worker's type of employment nor do they monitor this issue. Instead, their focus is on the health and safety issues for the pilot and crew, regardless of nationality or contract type. Their responsibility includes foreign airlines with bases in Norway.

Arguably, deregulation and increased competition in aviation has placed greater importance on the role of the Norwegian Labour Inspectorate and the CAA. Flight personnel who move between different countries have difficulty in gaining an overview of their rights. Employment agencies and LCCs, intentionally exploit this knowledge gap. Research on agency control and collaboration demonstrates that political factors often shape the agency's strategy. The following citation, which assessed the role of transport safety inspectorates including CAA, demonstrates this: 'While safety inspectorates are to secure an acceptable level of risk in transport, this level is mostly not defined by the inspectorate, but is the outcome of *a social and political process*, where several considerations and goals must be weighed against each other' (Elvebakk, 2015: v emphasis added).

With this in mind, and in light of the Cocca case, which attracted considerable media attention (duly noted in the CAA (2013a: 31) annual report), it is not surprising that CAA decided to carry out an inspection of Ryanair's operations at Rygge airport in June. At the time Ryanair had 55 pilots and 124

cabin-crew, on Irish contracts, operating six Irish registered aircraft. The objective of the inspection was 'to verify that Ryanair fulfills its responsibility according to the W[ork] E[nvironment] A[ct]' (CAA, 2013b). In its report the CAA (2013b), raised concerns over the employment contracts on the question of sick pay, the length of the trial period and where the 'home base' is located. Naturally, Ryanair was reluctant to acknowledge the recommendations and contested the right of the Norwegian authorities to issue formal requirements with reference to the Norwegian Working Environment Act for the employment contracts, since the contracts were Irish and the work was carried out on Irish aircraft in international service.

While the work of the CAA is to be encouraged and commended in equal measure, there is a sense that the Rygge inspection is akin to closing the stable door only after the horse has bolted. Following on, a more proactive approach is recommended. In addition, the creation of the tripartite forum between the CAA, trade unions and employer federations is a welcome development and remindful of the stakeholder model, which, as noted previously, underpins the success of the aviation sector which predates the advent of LCCs.

In the post 9/11 environment the Norwegian security regulatory context, for better or worse, was divorced from the safety regulatory context (see Olsvik, 2015). Subsequently, security and safety, two sides of the one coin moved in different directions. Where the former is now prescriptive-based and shaped at the European level with less room for manoeuver, the latter remains at the national level where there is greater potential in terms of scope. This means that that inspectorates, i.e. the CAA and Norwegian Labour inspectorate, can be proactive in shaping the regulatory context and ensuring that regulations are not being contravened or circumvented. It required a colossal breach of aviation security and a dastardly and heinous terrorist act to harmonize standards on the question of aviation security. Surely, we do not need to relearn that lesson. However, as mentioned above, political will is necessary.

3.7 Domestic Aviation in Norway

In Section II we outlined the importance of network infrastructure in the aviation sector. Typically, studies focus on the 'economic footprint' of the aviation industry, measured by its contribution to GDP, jobs and tax revenues generated by the industry and its supply chain. However, the economic value created by the industry is more than that. In addition to the principal benefits for the traveller, the connections created between cities and markets represent an important infrastructure asset that generates economic benefits by facilitating foreign direct investment, business clusters, specialization and other spill-over impacts on an economy's productive capacity.

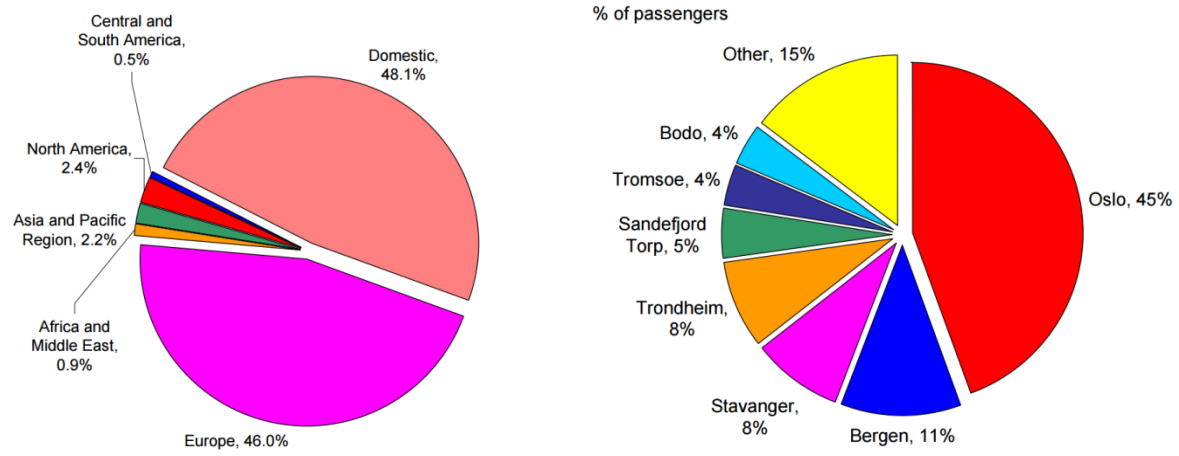
Domestic aviation is of utmost importance to Norway. As can be seen from Figure 13 almost 50 per cent of flight in Norway are internal. This can be explained by the sheer size of the country and the distance between cities. According to data from the Norwegian Centre for Transport Research[16] (2014) there were 14.9 million single domestic journeys in 2013, which represented an increase of 2.5 per cent from 2011. Domestically, SAS was the biggest operator, with 46 per cent of the market. Norwegian has 37 per cent of the market and Widerøe 17 per cent. Between 2003 and 2013 domestic business

[16] This data is based on an Air Travel Survey where some 140,000 passengers responded to questions about their travel. The survey covers all domestic air travel and all travel between Norway and international destinations, with the exception of traffic to/from Moss Airport Rygge.

travel grew at a rate of 3.2 per cent per year and in 2013 50 per cent of air travel is business traffic. 51 per cent of all domestic business passengers chose SAS.

Regional airports play a critical role in Norway's aviation structure and are dependent on investment. Recently, the European Investment Bank provided a €200 million long-term loan to the Norwegian airport operator, Avinor AS, for the expansion and upgrade of Bergen airport to cater for growing traffic demand and improve passenger services at Norway's second busiest airport. A new Terminal 3 and light rail service will make Bergen airport more operational and more efficient. In addition, a new terminal is almost complete at Oslo Gardermoen airport. Investment in air transport infrastructure is futile without investment from airlines. Examples provided above demonstrate that certain LCCs are reluctant to commit to such investments.

Figure 13 Regional distribution of scheduled passenger trips originating in Norway



Source: Oxford Economics (2011)

The different employment models being used by various LCCs is, in different ways, putting downward pressure on terms and conditions of employment. Atypical work is becoming increasingly prevalent and this translates into greater precariousness and diminished influence over wages and work conditions. Such a development carries ramifications not only for the working environment but also the network infrastructure. Together, these could have further implications not only for economic performance but also national security. In addition, should such a trend go unchecked there is a distinct possibility that Norwegian labour will be supplanted with foreign labour on inferior contracts whose tax and social contributions are paid elsewhere. This results in a loss of revenue to the Norwegian exchequer. The accumulative effect of such a scenario does not bode well for an industry which places a premium on reporting and maintaining a culture of safety. Aviation cannot afford a race to the bottom. To this end, effective oversight is fundamental.

SECTION IV

In the preceding Sections, we have examined the effects of deregulation in North America, Europe and Norway. The changes to the airline business have been significant. In this Section we will briefly discuss further developments which were not mentioned earlier. These include the increased competition from the three Middle-Eastern airlines on long-haul flights. In addition, we consider on-going bilateral trade talks between the EU and US through the lens of bilateral and multilateral aviation agreements. Although aviation is not formally part of these negotiations, aviation's experiences are insightful. Relevant developments at the European level will also be discussed. Subsequently, we turn our attention to a number of recommendations.

4.1 The Gulf Carriers and the Question of Fair Competition

Legacy carriers are not only facing competitive pressures from European LCCs, but also from the so-called Middle-East 3 carriers (ME3), namely, Quarter Airways, Etihad and Emirates. The ME3 have long been accused of receiving government subsidies by their rivals in Europe and America, which have the function of distorting competition. Evidence supporting this claim has been thin on the ground, until recently that is. In a Partnership Report (2015), commissioned by a number of U.S. and European airlines, the extent of the subsidies is described as 'obvious and massive'. In the 10 year period between 2004 and 2014, ME3 carrier subsidies amounted to $42bn. The ME3 carriers deny such allegations. Tim Clark, the boss of Emirates, maintains that the carrier he helped set up in 1985 only ever received $10m in seed capital. Clarke insists that Emirates success is underpinned by two reasons. The first has to do with the Middle East's fortuitous geographical positioning between East and West. The second reason is that, in contrast to Europe, the Dubai government has pursued a defined pro-aviation strategy, which has been over twenty years in the making. As CCO of Emirates, Thierry Antinori, commented, '[A]viation was made a strategic industry in Dubai 20 years ago [...] That is the big difference with Europe [where] there is no strategy' (Reuters, 2012).

According to the Partnership Report (2015), the allegations against Emirates include the assumption of a $2.4bn fuel-hedging loss by Dubai, artificially low airport charges amount to a saving of $2.3bn, and it is estimated that Emirates' non-unionised workforce saves the airline $1.9bn. It is alleged that Qatar Airways, has received over $7.5bn in interest-free loans from the Qatari government and $6.8bn in reduced debt-interest charges thanks to sovereign guarantees. Finally, it is said that Etihad has received $6.3bn in capital injections, $4.6bn in interest-free loans with no repayment obligation, and $4.2bn in 'additional committed subsidies' from the Abu Dhabi government.

Investigators for the Partnership for Open and Fair Skies (2016) have recently uncovered a financial statement in Singapore for Qatar Airways that indicates that the government of Qatar provided more than $7 billion to the company in 2014-15 and authorized a further $3.7 billion in subsidies.

The Gulf carriers counter such claims by pointing to the American airlines that benefitted from the Chapter 11 system outlined in detail above. This, they claim, equates to a form of subsidy, which props up the domestic sector while at the same time underwriting an airline's debts and costs. This comparison, however, is unreasonable. For starters, there is the question of transparency, which in the case of the Gulf carriers has been non-existent. Furthermore, Chapter 11s are restructurings carried out

under the scrutiny of an independent judiciary, they do not constitute equity injections by the taxpayer. By contrast, the Gulf carriers' organizational decisions are taken behind closed doors by dynastic rulers with no accountability to their citizens. Until such a time that the UAE and Qatar can demonstrate that their flag-carriers follow the norms of fair competition, national governments are entitled to impose bilateral restrictions – just as most governments in Europe and the Middle East have done. However, as the New Zealand and Australian cases demonstrate the Gulf carriers, with the powerful backing of the UAE and Qatar, can drive a hard bargain. Consequently, the ME3 carriers 'have become the most disruptive force in long-haul aviation' (*Financial Times*, 2015).

The unfair subsidization of the Gulf carriers by the governments of the United Arab Emirates (UAE) and Qatar is harming airlines in many countries around the world including Australia, France, Germany and the Netherlands among others. In a joint statement, the French Secretary of State for Transport and Germany's Federal Minister of Transport said that 'European airlines are losing market share against the Gulf companies, because of their unfair competitive practices, and in particular because of the significant public subsidies and guarantees they enjoy' (Euractive, 2015). The French, German and Dutch governments have all highlighted the harm being caused, and have introduced a freeze on new Gulf carrier flights to their countries.

Lufthansa's Frankfurt hub has lost nearly a third of its market share on routes between Europe and Asia since the entry of the Gulf carriers, and as a result has had to cut flights to over twenty destinations in Africa and South East Asia-Pacific. Lufthansa senior vice president, Thomas Kropp (2015: 3), wrote in a submission to U.S. DOT, that the Partnership study 'demonstrates how the financial support to the Gulf carriers allows them to bring capacity into the market to an extent that cannot be explained by growth of the market'.

Additionally, the European Union's Transport Commissioner will seek authority from EU governments to negotiate directly with the Gulf states and address their anticompetitive practices. These negotiations must form the central plank of a European aviation strategy. However, a united approach, which would strengthen the European Commission's bargaining hand, is not in the interest of the ME3 carriers. The President of Emirates, Tim Clark (2016), expressed this clearly in a letter addressed to the Danish Transport Minister, Hans Christian Schmidt, in a bid to thwart the ambitions of the French and German transport ministries to shift the level of negotiations from the national level to the European level. Instead, the likes of Emirates have a clear preference for bilateral agreements over 'comprehensive agreements contexts'. The reason for this preference might be understandable from an ME3 standpoint, but as to whether individual Member States get a better deal is debatable.

As part of the strategy, the Gulf airlines have sought to buy media bias thereby limiting impartial reporting. This approach is damaging to public knowledge and has been documented by the *Economist* (2015), as the following extract notes:

> Gulf carriers are more proactive than most at currying favour with trade journalists. Their generosity to the media goes beyond complimentary flights for press conferences—perks that The Economist's journalists are prohibited from accepting—and extends well into corporate hospitality. Once a journalist has enjoyed an evening in an executive box at the Emirates Stadium, for example, it becomes awkward to

write anything negative about Dubai's flag-carrier. Such conflicts of interest may well have influenced coverage of the Gulf subsidy row.

Hence, there is an onus on media outlets to report on the Gulf carriers' business model in a transparent fashion. This is very much in the public interest. To this end, the unfair 'seat dumping' practices need to be exposed for distorting the international airline marketplace and pushing EU airlines out of the market without creating additional demand. Such practices would not be commercially viable without state subsidies.

There is also the question of labour conditions. According to a letter sent from union presidents of the Association of Flight Attendants (2015), the Association of Professional Flight Attendants, the Communications Workers of America, and the International Brotherhood of Teamsters to the US Travel Association, Emirates, Qatar Airways and Etihad stand accused of having an 'abhorrent labour standards.' These carriers 'require their female employees to obtain permission before getting married or pregnant, and ban lesbian, gay, bisexual and transgender people from employment.' In addition to gender and sexual orientation discrimination, 'the Gulf carriers have imposed archaic weight and appearance standards on their employees.' Employees based in the Gulf are unable to join a union or organize collectively as the Gulf states ban unions. Political affiliation is also prohibited. Hence, in the case of a dispute ME3 employees have no recourse or rights upon which they can rely. In other words, fundamental human rights are being denied.

4.2 Bilateral and Multilateral Aviation Agreements: Lessons for TTIP

In June 2013, the EU Member States endorsed the negotiation directive, giving the green light to the European Commission to enter formal negotiations with the US on behalf of the EU. The Transatlantic Trade and Investment Partnership, known better by its acronym TTIP, is an agreement under negotiation between the EU and the US. The aim of the agreement is to liberalize trade as much as possible between the two blocs. Those supporting the EU-US deal point to TTIP's ability to resuscitate economic growth resulting in increased employment on both sides of the Atlantic. Although aviation is not formally part of TTIP, the negotiations could learn from pitfalls and shortcomings arising from previous bilateral agreements in the aviation industry.

The negotiations, which started in Washington July 2013, have been shrouded in ambiguity and such opaqueness does little to address public disquiet. Proving a boon for much contention from different backgrounds, much of the disquiet has to do with investor-state dispute settlement (ISDS) procedures, where multinational companies can bring national governments to court over decisions that are taken in the public interest, but are seen as being contrary to the commercial interests of the multinationals. The inclusion of ISDS is typical of bilateral trade agreements, however, their use is on the rise worldwide. Between 1959 and 2002, there were fewer than 100 ISDS claims globally. However, in 2012 alone, there were 58 cases (*Washington Post*, 2015) surpassing the previous record, which was set the previous year. 41 U.S. bilateral investment treaties in effect include provisions for ISDS, as well as most of the U.S bilateral trade agreements.

Two examples are often cited. Firstly, there is the tobacco company Philip Morris which initiated proceedings against the Australian and Ugandan government on the grounds that plain packaging was damaging the profitability of the firm. In the case of the former, the tobacco company argued that the

ban on trademarks breached foreign investment provisions of Australia's 1993 bilateral trade agreement with Hong Kong. The second example is closer to home and involves the French multinational Veolia in Egypt. The French company provides waste management, however, when the Egyptian government raised the minimum wage, Veolia sought compensation as raising the minimum wage increased their wage bill. The rise in minimum wage is 'one of the few concessions won by Egyptian salaried workers in the 2011 "spring"' (*Le Monde Diplomatique*, 2014) yet Veolia felt sufficiently aggrieved to challenge this decision. According to media reports, Veolia is seeking €82 million in compensation (Karadelis, 2012)

Even the libertarian think-tank, CATO Institute (2014), is critical of ISDS mechanisms and questions the need to include such provisions in free trade deals.

> As is true of most populist causes, buried beneath the enabling mythology and hyperbole are some kernels of truth. One such truth, … to distill from the vacuous, anti-capitalist hyperventilation surrounding the trade agenda, is that the so-called Investor-State Dispute Settlement (ISDS) mechanism, which enables foreign investors to sue host governments in third-party arbitration tribunals for treatment that allegedly fails to meet certain standards and that results in a loss of asset values, *is an unnecessary, unreasonable, and unwise provision to include in trade agreements* (emphasis added).

With the debate surrounding the TTIP, the European Commission temporarily suspended the negotiations on investment protection and started a public consultation on the question. There were hopes that this process might lead to a new beginning for investment policy and address the unilateral investor rights to sue states in private tribunals and/or remove special property rights for foreign investors, which go beyond constitutional guarantees regarding the protection of property. However, this consultation process has come up short and perpetuates an asymmetrical system where there is no obligation on investors, for example, to respect labour rights. Also, affected third parties, such as trade unions, will not have legal standing in dispute proceedings. As Eberhart (2014: 12) notes, 'instead of equality before the law, there are still special rights and special courts for investors.'

TTIP negotiations are being organized around 24 areas. To date 14 rounds of negotiations have taken place. Regulatory cooperation is see as an innovative part and a key pillar of TTIP. There are regulatory differences between the U.S. and Europe in a number of different sector including environment and climate change, food safety and agriculture and chemical safety (Vogel, 2003; Wiener et al., 2011). These differences can hinder regulatory cooperation. Let us take a closer look at the Bilateral EU-US Aviation Safety Agreement (BASA), which entered into force in 2011 and provides an insightful example as to how regulatory cooperation is easier said than done.

To date, the BASA, which includes Norway and Iceland, has not been uniformly implemented, and there remain a number of outstanding issues that of a regulatory nature. For instance, the question of environment and aviation emissions remains the source of an on-going dispute between the two parties and is demonstrable of the immense challenges TTIP faces and suggests perhaps that TTIP is too ambitious and ultimately unrealistic. The EU's current approach is to require international air travel

originating or terminating in the EU to comply with the EU's emissions trading system (ETS) requirements. Greenhouse gas emissions from the aviation sector are among the fastest growing emissions worldwide, and according to forecasts are expected to continue along a trajectory of rapid growth (Lee, 2010: 42-6). Article 2.2 of the Kyoto Protocol provides that 'Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases … from aviation ... working through the International Civil Aviation Organisation'. So far, however, the track record of ICAO, a specialised agency of the United Nations, has left observers largely underwhelmed (European Federation for Transport and Environment, 2010), prompting the EU to conclude that international efforts were 'insufficiently stringent' and causing it to extend the scope of the EU ETS to both domestic and international flights arriving at, or departing from airports within the EU.

Following a Directive (2008/101/EC) formally amending the EU ETS framework to include domestic and international aviation, Airlines for America and three US airlines challenged the inclusion of aviation in the EU ETS before the High Court of Justice of England and Wales. The High Court referred the central questions in the case to the ECJ for a preliminary ruling. In a widely anticipated opinion, the ECJ's Advocate-General[17] rejected all claims and stated that the inclusion of international aviation in the EU ETS was compatible with international law, and did not infringe the sovereignty of other states.

Airlines for America and the US airlines then directed their lobbying energies towards the US administration, which has no equivalent programme to regulate aviation emissions. After intense lobbying, the US Congress adopted a bill prohibiting US airlines from complying with the requirements under the EU emissions trading scheme (ETS), and indemnifying them from any negative consequences.

Acquiescing to pressure, Climate Commissioner Hedegaard, in 2012, then agreed 'to stop the clock' so as to facilitate negotiations. The EU effectively agreed to start a regulatory dialogue at the international level with its major business partners and the US, following one of the key principles of transatlantic regulatory cooperation: working together to forge international standards. In September 2013, the ICAO presented a draft resolution which included a market-based mechanism for international aviation to be implemented by 2020. The EU accepted a compromise under which – rather than including emissions from the entire journey – international flights would, in the meantime, only be covered for the extent that they use European airspace. Many (e.g. Corporate Europe Observatory, 2016) see this move as further watering down of an already unambitious Directive. It is unclear whether or not US airlines will accept this compromise.

More recently, the TTIP negotiations have to be seen in the context of NAI's application for a foreign carrier permit. In a letter, dated 22 July, the EU Transport Commissioner wrote to the U.S. Secretary of Transportation expressing dismay at the delay of a definitive decision of NAI's application. Furthermore, the Commissioner expressed concern 'about the consequences that this matter could have, not only in our aviation relations, but in the overall economic and trade transatlantic agenda.' As noted in greater detail above, opposition to NAI's application is motivated by the emerging threat of 'flags of convenience' and the concern that a similar fate to the one that up-ended maritime sector awaits the aviation sector. These concerns are rooted in protecting jobs and maintaining labour standards. For this reason, and others such as the environmental one mentioned above, labour organisations on both

[17] Opinion of Advocate General Kokott, 6 October 2011, Air Transport Association of America et al. v. Secretary of State for Energy and Climate Change, C-366/10.

sides of the Atlantic are seeking the exclusion of transport and public services from the scope of the negotiations (ETF, 2014; TTD, 2015).

As already stated above, aviation is not formally part of TTIP negotiations. Instead, the ICAO is seeking to break with the traditional bilateral framework in favour of a multilateral one. Currently, under development the proposal is seeking the ratification of a multilateral convention which would fully liberalize market access for international air transport and as well as changing the rules governing ownership and control of airlines. To boot, much of the ICAO's work is being conduced in a clandestine fashion and away from the glare of public scrutiny. The European Cockpit Association (2015) has been very critical of the lack of transparency and this is even before the content of the proposal is discussed. Without clarity, the scope for social dumping increases significantly as does the likelihood of 'flags of convenience'.

With regard to the content, criticism hinges on the fact that there has been little or no provisions when it comes to addressing labour and social concerns. This creates the conditions for an uneven playing field and unfair competition. Therefore, these matters have to be dealt with before any agreement is reached. In addition, the ECA (2015) is advocating that individual states to conduct a regulatory impact assessment on the potential of further liberalization and increased competition from the likes of the ME3s. Such an assessment would have to consider the likely effects on safety, employment conditions, taxation and social contributions. We return to this question in the recommendations section below.

4.3 Developments at the European Level

At the European level there have been a triad of developments which seek to address conundrums faced by national courts. Regulation (EU) No 1215/2012 determines the competent court in civil and commercial matters with an international character. Although a step in the right direction this legislation is by no means flawless. Steps have also been taken to address the legal framework which facilitates reducing costs related to social security and has contributed to the proliferation of elaborate subcontracting schemes. Regulation (EU) No 465/2012, applicable as of 2 Febuary 2013 in Norway, modified Regulation (EC) No 883/2004 on the coordination of social security systems. This modification introduced an important factor — the 'home base'. However, the authors of the Ghent report (2015: 244/5) remain somewhat sceptical and point to conceptual ambiguity in the legisation for key terms such as 'operator' which 'renders it difficult for pilots and cabin crew members to determine who is ultimately responsible for the safeguarding of their rights.' The authors go as far as to describe the 'home base' factor, which is nominated by 'the operator' as a 'legal fiction'.

This was Ryanair's (2015: 60) response to the Regulation (EU) No 465/2012: 'Ryanair estimates that the change in legislation will not have any initial material impact on its salary costs'. In other words, their discretion remains intact and it is business as usual.

Instead the authors of the Ghent report place greater hope in Regulation (EU) No 83/2014 which comes into effect in February, 2016 and clarifies some of the conceptual ambiguity surrounding 'home base' for pilots and cabin crew members, which is in and of itself an EU concept. The difference is that the location is no longer 'nominated' by the operator, but 'assigned'. Albeit a subtle change, it is considered a positive one as an employee can only be assigned to one base at a time but as to whether this positive development translates on the ground remains to be seen.

Currently, the EU, through EASA, is in the process of moving towards a system to anticipate and focus on potential safety risks. This involves repealing Regulation No. 216/2008. This development heralds the introduction of a more risk and performance-based approach to safety regulation. While welcoming the overall initiative, the Standing Committee of EFTA (2016), which includes Norway, has presented a number of concerns expressed in document Ref. 16-2948 submitted 3 June. One such concern is in relation to Article 54. According to the proposed regulation, there is the possibility for multinational airlines to opt to have EASA as their competent authority. This implies that this option is open to the operator without the consent of the national competent authorities. Hence, national oversight in highly important areas could potentially be transferred to a supranational body (EASA). For EFTA members, 'this transfer of sovereignty gives rise to challenging constitutional questions.' Therefore it remains to be seen how the formulation process plays out in the ongoing debates at EU level.

4.4 Recommendations

Over the recent years, social dialogue in aviation has encountered difficulties across the EU. Difficulties have revolved around pay and working conditions, collective agreement 'cherry-picking' and foot-dragging over entering into agreements. For instance, in Finland, a dispute between two unions, the Finnish Cabin Crew Union and the Finnish Aviation Union, and the Union of Service Sector Employers dragged on until the end of May 2015. The dispute was about which collective agreements applied to ground handling and cabin crew staff at Airpro, a subsidiary of the former civil aviation authority Finavia, which is now run as a publicly owned company. Finavia were accused of 'collective agreement shopping' as there was already a valid company-level collective agreement and two further existing sector-level agreements which, in theory at least, covered ground handling and cabin crew services. The unions argued that Finavia was supporting low-cost airlines at the expense of workers by 'cherry-picking' the cheapest collective agreement. The company-level agreement offers lower wages and fails to take into consideration the special features of cabin crew services. Numerous strikes were threatened and one executed. Finally, with help from the national conciliator, the dispute was finally settled in May (EIRO, 2015). Norway's airlines and unions are no stranger to such experiences, broadly speaking.

A plethora of employment arrangements involving (foreign) temporary work agencies, (bogus) self-employment, zero-hour contracts and P2F pilots have and continue to shape the aviation industry. Furthermore, and in addition to new company structures, ancillary services have been outsourced. Add to that the fact that it is becoming more common for airlines to lease their planes and we can truly speak of 'virtual' airlines where airlines only deal with ticket sales and scheduling flights. Although overall responsibility for safety and operational conditions will lie with the airline, this arms-length approach differs completely from the traditional approach to general safety rules. Drawn up at a time when airline business and employment models were very different, these rules were relatively uniform across European states. Today's *modi operandi* fly in the face of a culture of safety.

The Ghent Report, which surveyed over 6,600 pilots highlights the safety risks that the elaborate arrangements have for pilots and, inevitably, customers. To quote one pilot: 'Pilots fly while sick because they are paid per hour flown. No kind of pressure should be put on pilots and their decisions when calling sick. Now there is fear/pressure from the company and huge training accumulated debts to be paid' (2015: 187). Astonishingly, over 60 per cent of pilots surveyed had changed employer *seven* times! The case of Captain Coleman presented above suggests a reason why this is so. Drawing attention to regulatory gaps in the industry, the authors of the report (2015: xiv) note that

> civil aviation legislation does not take into account the prevalence of different forms of atypical employment and outsourcing in the rapidly changing civil aviation industry. Moreover, social legislation is not able to tackle the new phenomena, leaving room for elaborate subcontracting chains and elaborate social as well as fiscal engineering. As a result, the competition nowadays is a true race to the bottom, which affects fair competition and workers' rights as well as raises important issues in the field of safety and liability.

The recent cases in Germany described above where the pilot's employment status was considered to be 'bogus self-employment' demonstrate this point. The German authorities have been proactive on this front and in July (2016) they searched the offices of Ryanair at six[18] German airports in connection with an investigation into tax evasion by UK-based aviation recruitment companies. Allegedly, the investigation involves around 1,600 contracts, which do not include provisions for sick pay and only pay pilots for time spent while in flight. 'German investigators said Ryanair's business model was a central part of the investigation, in particular whether, by not directly employing pilots who fly its planes, the airline saves considerable tax and non-wage costs' (*Irish Times* 2016b). British authorities are conducting their own investigations, as are a number of other national authorities.

On the question of social contributions, Figure 14 below demonstrates that Ryanair's social and pension contributions represent only a small and declining proportion of the overall employment costs. The recent EU Aviation Strategy, published in December 2015, specifically stated that EU actions are required when it comes to '[R]einforcing the social agenda and creating high quality jobs in aviation'. Surely, this agenda is to be incorporated into a national aviation strategy too. Norway is known to have a reputation of good governance. This is especially the case in questions concerning the labour market and on four occasions between 2009 and 2012 Norway has partnered the ILO on projects related to labour inspection. Typically, Norway also has a good reputation in the aviation sector where the gender gap between male and female pilots is being addressed. The beginning of 2016 saw Oslo Airport, operated by Avinor, become the first international hub to offer sustainable alternative fuel to all airlines. The availability of a fuel, which is 80 per cent less carbon-intensive than traditional jet fuel, is seen as a 'landmark day for the development and commercialisation of sustainable alternative fuels' (ATAG, 2016). Lufthansa Group, SAS and KLM have already signed agreements to purchase the fuel.

[18] Cologne Bonn, Frankfurt-Hahn, Karlsruhe-Baden-Baden, Bremen and Weeze.

Figure 14 Ryanair payroll costs (2012-2014)

Source: Steer Davies Gleave (2015) based on annual reports

At the moment there is a debate on how the Norwegian aviation sector should develop (see Underthun and Bergene, 2014). The objective of this report was two-fold: Firstly, to identify the broader consequences of deregulation on the aviation sector with specific attention being paid to employment related matters. To this end, we provided details of the deregulation experience in North America, Europe and Norway. With regard to the European experience, we drew extensively on the findings from research commissioned on behalf of the European social partners and pertaining directly to the employment question. While the findings are disconcerting they also represent a call to action. This brings us to the second objective of this report. In the following paragraphs and pages we will present a number of recommendations which seek to address the loopholes that facilitate social dumping and advance the race to the bottom in aviation. Regime shopping is not well received in the aviation sector and the unprecedented delay in Norwegian Air International's foreign air carrier permit bears this out. The threat of social dumping is real and has initiated a race to the bottom. The following recommendations are preventative measures, which create a floating floor by taking certain aspects out of competition. For prevention is better than cure and the prospect of a floor, albeit floating, is a better prospect than the bottom.

4.5 Safety in Aviation

The overriding objective of a national aviation strategy has to be unquestionably the issue of safety. Due to the significant expansion of Norwegian's fleet - which almost all are on Norway's aircraft register - there are implications for the regulatory authority. There are two sides to the safety coin. On the one hand, there is the regulatory agency, and on the other hand, there is the airline operator. The State's obligation is to oversee the fulfilment of requirements via the legislative and organisational

arrangements established precisely for this task. The increasing complexity surrounding the aviation system requires regulation that is fit for purpose, effective and efficient.

Since the liberalization of the EU civil aviation industry there have been a number of developments with new business and employment models emerging. These models are associated more so with LCCs, which have seen an increased share in the aviation market. Intensified competition has put the legacy carriers under increased pressure and to an extent is undermining the stakeholder model, which predates the liberalization era and; lest we forget, successfully constructed a robust aviation infrastructure. It is upon the coattails of the stakeholder model, that the LCCs now fly. Where airports, by and large, continue to use the traditional employment models, LCCs favour atypical employment. This experience has characterized the Norwegian aviation industry where there has been an increased pressure on pay and working conditions for pilots and crew-members.

A focus on improved human factors analysis is cardinal. Through improving the identification capacity regarding human causal factors the skies will be a safer place. To this end, data collection and exchange, including safety reporting, are fundamental. In its safety regulation role, the CAA has responsibility for regulating the safety of air transportation services. Improved human factor analysis requires a proactive approach. This is especially the case when it comes to airlines based in Norway that rely on atypical employment. Emphasis must be placed on passenger and staff safety, regardless of the business model. In particular, the relevant administrations need to be vigilant in their monitoring of the increased use of false self-employed workers and temporary employment agencies. To this end, co-ordination and co-operation between the CAA, labour inspectorate, tax authorities and the police is paramount. In addition, there needs to be sufficient protection for so-called whistleblowers who make disclosures with regards to safety discrepancies.

The Consultation Paper published by the Ministry of Transport and Communication (2016: 92) stated that, '[T]here are no grounds for stating that increased competition has weakened aviation security', however, the evidence presented above, in terms of the runway overrun in France and Captain Coleman's testimony, demonstrate that while aviation security might not be weakened, aviation safety has been somewhat compromised. Addressing this is an imperative.

In the Hermes case, the BAE (2015a: 97) investigation found that in 2012, 'the oversight authority had issued an AOC to Hermes Airlines without putting in place a suitable oversight programme which would have enabled it to detect operational weaknesses.' And that 'that the conditions for recruitment, outsourced training and rapid expansion should have led the Greek CAA to establish an appropriate oversight programme.' EASA had detected inadequacies during an inspection of the oversight authority in 2012, specifically linked to its ability to ensure its oversight of its operators efficiently due to the effects of austerity, which amounted to a drop in the number of staff members and an increase in the workload.

While Norway has scored well on independent audits, there is room for improvement in the area of safety management. A recent Eurocontrol Performance Review Body (2014) published its Annual Monitoring Report on safety and ranked Norway thirteenth out of 29 European States for Effectiveness of Safety Management (EoSM).

4.6 A Level Playing Field

Although the concept of a 'level playing field' has been around for decades, it has re-emerged as a major issue and with a renewed urgency in European aviation and beyond. Recent policy debates have asked the question whether the unintended effects of liberalization can be reversed. Everybody is in favour of competition provided the parametres and rules structuring the competition are fair and adhered to. Due to the fact that air transportation has been separated from general trade negotiations, the question of the level playing field is of greater relevance for aviation than it is for other sectors. Social dumping creates unfair competition. Recently, a number of airlines have been operating at the limits of the regulations and it is inadmissible for all airlines to compete whereby adherence is only to the lowest common denominator on safety. While it may be more difficult to raise all aircraft to a higher level, there is a responsibility on national government to address this issue without jeopardizing the quality of service or restricting its capacity. This is by no means an easy feat but neither is it impossible to strike a balance between the two while ensuring (fair) competition at the same time.

There are a number of legitimate factors around which a level playing field is organized. Here we identify 5 factors which are key to improve the functioning of the single aviation market:

1. **Social security**

The practice employed by some airlines of adopting the least onerous social security systems, irrespective of the crew-members' home base, can no longer be tolerated.

There should be no ambiguity when it comes to employees and where they are entitled to social security. There is the option of codifying the criteria of the principle of habitual employment. This approach typifies the French example.

The adoption of Decree 2006-1425 of November 2006, which rendered the Labour Code applicable to the airlines with operational bases in France, has resulted in numerous cases before French courts. Notably, foreign LCCs (e.g. EasyJet, CityJet, NetJets, and Ryanair) have been held accountable for having employed pilots and cabin crew under foreign employment contracts and via temporary work agencies, thus avoiding the French social security regime, despite these airlines having operational bases and subsequent home bases in France. As a result, these LCCs have been obliged to conform to the social security regime in France, or, alternatively, reorganise their business so as to have an operational base elsewhere. These cases have served to substantially elucidate the rights and obligations inherent to employment relations concerning pilots and cabin crew in the French aviation industry.

2. **A clear definition of '*operator*' and '*home base*'**

In the interest of clarity and legal certainty it is essential that these terms are understood in a uniform fashion so as to avoid misinterpretation and ensure the intended effect of EU/EEA rules. This will address the problem of fictive airline bases as well as clarify employee social rights and ensure a degree of stability for airline employees.

3. **An unambiguous definition of principal place of business (PPB).**

There is a need for clarity in the definition of PPB, which in its current form is too opaque and facilitates virtual airlines and regime shopping. An airline should only be registered in a country where the airline has substantial flight operations and not only an administrative centre. Failure to address this will lead to a 'flags of convenience' scenario.

A clear definition of PPB will assist in determining where the main obligations for oversight reside. It would appear logical that there be an onus on the regulatory authority of the country, in which an airline conducts the majority of its operations.
PPB is also important in the context of equity, as a clear definition will also ensure that the economic spoils remain where the majority of the airline's operations are carried out

4. Working environment on aircraft

In the Consultation Paper published by the Ministry of Transport and Communication, it was noted that the Danish authorities do not subject Norwegian bases in Denmark to HSE assessment on the grounds that the crew do not work on board a Danish registered aircraft. However, such crew are not covered by Norwegian working environment legislation and are not subject to HSE supervision by Norwegian authorities. One way of addressing this is to ensure that all aircraft are scrutinized according to the rules governing the working environment on board aircraft *based* in Norway.
Assuming that a weakening of industrial relations can impact on labour standards, pay, the quality of working conditions and ultimately on flight safety, this challenges both national and European regulators as well as governments and social partners to avoid a race-to the bottom in which all parties would lose out. In the European Commission's (2016) recent public consultation on improving the competitiveness of the EU aviation sector, cabin crew unions suggested that cross-border collective agreements could be negotiated as a means for ensuring a level playing field in terms of social standards. Perhaps Norwegian and Danish unions, supported by their national governments, could spearhead this initiative.

5. Wet leasing

Wet-lease is a leasing arrangement whereby one airline (lessor) operates the flights providing the aircraft and crew to another airline (lessee). The aircraft is operated under the air operator certificate (AOC) – and hence under the operational responsibility - of the lessor. For instance, Norwegian Air Shuttle is operating long-haul flights with aircraft 'wet-leased' from NAI on an exemption from the Norwegian CAA.

The use of wet leasing or contracted flight and cabin crews is becoming increasingly widespread. However, the rational underpinning wet-lease regulation is to meet short-term needs, such as extra demand, and/or extenuating circumstances. This logic should not be meddled with as an abusive use of wet-leasing opens the door to 'virtual' airlines and is a clear threat to aviation safety. Therefore, there is a need for authorities to enforce the temporal parametres of the rule.

4.7 ME3s and the Need for a European Aviation Strategy

The common EU market is a reality in terms of aviation. In addition to the impact of any new economic regulation proposals, such as ones by the ICAO, being assessed by individual Member States there is an onus on policy-makers to include recognition of the EU and the EU aviation market as a single entity. Furthermore, there is a necessity to acknowledge the EU's core values which includes the improvement of workers' living and working conditions.

It is estimated that a net 600 European-based jobs disappear for every route lost or forgone to one of the three subsidized Middle East carriers (E4FC, 2016). Addressing this is of utmost importance. The European level is the optimal level for agreement over the terms and conditions with the Qatari and UAE administrations. Naturally, this requires something which the ME3s are reluctant to see materialize, namely, consensus. To this end, individual national administrations will come under increasing pressure to maintain the status quo of bilateral agreements. This pressure must be resisted in the interest of improving the living and working conditions of European citizens. This can only be achieved through fair competition.

4.8 Meeting Demand with Quality

According to economic forecasts, the aviation industry is set to expand over the coming decade. However, little or nothing is said of the number of pilots required to meet this demand or of their training. The demand for pilots must be met with well-trained pilots. Unfortunately, this increased demand is seen as an opportunity to exploit young pilots eager to get their wings. P2F heralds a new low in the aviation sector. Whereas in the past the employment of young pilots was seen as an investment by the airline in its staff, P2F is an exploitative practice with the objective of generating revenue. Pilots that have paid between €30,000 and €50,000 to fly are more likely to ignore sickness or fatigue.

By reversing the cash flow, airlines are positioning themselves as service providers, thereby diminishing the liability endorsement of the pilot. This impacts on flight safety, which young pilots must prioritise above all else. Hence, P2F schemes should be prohibited. A pilot in line training should not be obliged to pay for hours on commercial revenue-earning flights. The airline should bear the costs of ground training, simulator sessions and line training. Training a pilot on a new aircraft model (type-rate training) is an investment for the airline. There is scope for ensuring that airlines get a return on their investment, provided the terms of the agreement or bond are proportionate to a first officer's salary.

4.9 Discussion and Possible Scenarios

Large numbers, such as the ones in the introductory paragraph, only tell part of the aviation story and as a recent report by the International Air Transport Association (2016: 68) states: 'Millennials are better educated and more widely travelled than any previous generation, yet the air transport industry has to make more effort to connect with them, both as customers and employees.' Arguably, the relationship between customers and employees is a symbiotic one and, however, we have been more concerned with the relationship between the air transport industry and its employees. We underline that one must be cognizant that there is no one single low-cost model. Instead, there are variations on a theme. For instance, not all LCCs utilise secondary airports. This verifies the inaccuracy of applying a 'one size fits all' approach to explaining the behaviour of LCCs. Above we have made a number of recommendations which, we argue, would address concerns with regards to business and employment models adopted by certain airlines. Following these recommendations will only serve to bolster flight safety and ensure a degree of certainty for both pilots and crew-members. Should these recommendations go unheeded, a number of scenarios can be envisaged.

One such scenario involves 'flags of convenience' and demonstrates how parallels can be drawn with the deregulation experience of the maritime industry. Here, ship merchants register their vessels in a country other than that of the ship's owners with the objective of being subject to more appealing laws and wage conditions. Typically, ship merchants choose to be regulated by countries with the

weakest rules, whilst at the same time profiting from the very market whose regulatory reach is being actively avoided. According to Mendelsohn (2014: 3) the post-1950 experience in the maritime industry constitutes 'a determined and successful race to the bottom.'

Currently, there is considerable concern that Norwegian 'crews of convenience' will be used on trans-Atlantic flights (Underthun and Bergene 2014). Despite claims to the contrary by Norwegian representatives, U.S. and European pilots still seem to be concerned about the fair market conditions and possible implications for future employment relations. Most surprisingly, the Irish Aviation Authority (IAA) has been an active supporter of NAI's proposal. In doing so, the IAA has strayed a long way from its function as an independent agency whose mandate is safety and oversight for the aviation sector. Many feel that by promoting such dubious employment practices, the IAA has diminished itself as an independent regulatory agency.

The U.S. maritime industry was decimated by the re-flagging of vessels in order to circumvent labour and tax regulations. Naturally, the aviation sector fears a similar fate. Is NAI seeking to emulate Apple's tax policy? According to a report by Citizens for Tax Justice (2014) the latter has worked out a uniquely favourable tax arrangement. According to the report (2014: 9), 'Apple claims to have paid a 36.5 per cent tax rate on its claimed U. S. profits, but only 3.4 per cent on its foreign profits. The low 'foreign' rate mainly reflects the fact that Apple, for tax purposes, has moved about two thirds of its worldwide profits to Ireland, where those profits are taxed neither by Ireland nor by the U. S. or any other government.' Currently, this tax arrangement has been found to constitute unfair competition by the European Commission.

Norwegian counters the argument that re-flagging is a strategy to avoid paying Norwegian corporation tax, which stands at 27 per cent. Instead, Norwegian's CEO, Asgeir Nyseth, claims that NAI was created so as to enjoy EU traffic rights and, secondly, to be able to apply to the U. S. Export-Import Bank for discounted financing on its intended purchase of 20 Boeing 787-9 aircraft, which incidentally has been put on ice until a definitive decision has been reached by the DOT. Unsurprisingly, Boing supports NAI's application. The problem with Norwegian's argument is that this could have been achieved through another Norwegian subsidiary, Norwegian UK. Alternatively, Norwegian could have chosen another EU Member State, such as Sweden or Denmark, to register NAI. Such evasive tactics raises an important question as to whether Norwegian is worthy of the name? As noted above, Norway's reputation is associated with good governance, social justice and worker democracy, the antithesis of tax avoidance. Perhaps a name change is in order for the airline, perhaps something along the lines of Air Bjørn, after their well-known CEO who parenthetically has trained as a maritime lawyer.

References

Aftenposten. (2012) "SAS-forhandlinger under stort trykk". November 17th.

Airlines for America (A4A) (2016a) "U.S. Airline Mergers and Acquisitions". Available at http://airlines.org/data/u-s-airline-mergers-and-acquisitions/

Airlines for America (2016b) "U.S. Bankruptcies and Services Cessations". Available at http://airlines.org/data/u-s-bankruptcies-and-services-cessations/

Air Transport Action Group (2016) *Aviation Benefits Beyond Borders.* Geneva: ATAG.

Air Transport Action Group (2012) *Aviation Benefits Beyond Borders.* Geneva: ATAG.

Air Line Pilots Association (2016) "DOT's Norwegian Air Decision Exposes Flawed U.S. Aviation Policy" April 15th [Press Release]. Available at: http://www.alpa.org/news-and-events/news-room/2016-04-15-DOT-norwegian-air-decision-exposes-flawed-US-aviation-policy#sthash.f6UYAcpW.dpuf

American Express (2014) "Closing the Deal: Face-to-Face Business is Still a Must". Available at https://business.americanexpress.com/us/business-trends-and-insights/business-traveler/face-to-face-business-meetings

Association of Flight Attendants (2015) Letter Sent to U.S. Travel Association Questioning Support of Gulf Carriers

Avinor (2011) Bærekraftig og samfunnsnyttig luftfart. Rapport 2 (in cooperation with Norwegian, NHO Luftfart, SAS og Widerøe).

Avinor (2014) Flytrafikkstatistikk. Available at: http://www.avinor.no/avinor/trafikk/10_Flytrafikk-statistikk.

Bamber, G., Hoffer Gittell, J., Kochan, T.A. & von Nordenflycht, A. (2009) *Up In The Air: How Airlines Can Improve Performance by Engaging Their Employees.* Ithaca and London: Cornell University Press.

Barrett, S. (2004a) "How do the Demands for Airport Services differ between Full-Service Carriers and Low-Cost Carriers?", *Journal of Air Transport Management*, Vol. 10(1), 33-39.

— (2004b) "The Sustainability of the Ryanair Model", *International Journal of Transport Management*, Vol. 2(2), 89-98.

Bergene, A.C. & Underthun, A. (2012) "Transportarbeid i Norge: Trender og utfordringer. " AFI Report 10/2012. Oslo: Arbeidsforskningsinstituttet.

Bjørnelid, R. (2013) Kunsten å styrte et flyselskap, Oslo: Norli.

Bloomberg Businessweek (2008) "Airline Safety: A Whistleblower's Tale" January 30th

Blyton P, Lucio MM, McGurk J, et al. (2003) *Contesting Globalisation: Airline Restructuring, Labour Flexibilty and Trade Union Strategies* (2nd Ed.). London: International Transport Workers' Federation

Boeing (2010) "Boeing Projects Requirement For More Than One Million Pilots and Maintenance Personnel Over Next 20 Years" [Press Release].

Borenstein, S. & Rose, N.L. (2008) "How Airline Markets Work…Or Do They? Regulatory Reform in the Airline Industry." Paper presented at National Bureau of Economic Research Conference on Economic *Regulation* and Its Reform What Have We Learned?

Brenner, M., Leet, J. 0., & Schott, E. (1985). *Airline Deregulation*. Westport, CT: Eno Foundation.

Breyer, S. (2011) “Airline Deregulation Revisited” Bloomberg Press Online. Available at: http://www.bloomberg.com/news/articles/2011-01-20/airline-deregulation-revisitedbusinessweek-business-news-stock-market-and-financial-advice

Brueckner, J.K. (2003) “Airline Traffic and Urban Economic Development”, Urban Studies, Vol. 40(8): 1455–69.

Budd, L. (2016) “The Historical Geographies of Air Transport” in A. Goetz and L. Budd (Eds.) The Geographies of Air Transport. New York: Routledge.

Bureau d’Enquêtes et d’Analyses (2015a) “Report: Accident on 29 March 2013 at Lyon Saint-Exupéry Airport (France) to the Airbus A321 registered SX-BHS operated by Hermes Airlines chartered by Air Méditerranée.” Available at: https://www.bea.aero/docspa/2013/sx-s130329.en/pdf/sx-s130329.en.pdf

Bureau d’Enquêtes et d’Analyses (2015b) “Report: Accident on 24 March 2015 at Prads-Haute-Bléone (Alpes-de-Haute-Provence, France) to the Airbus A320-211 registered D-AIPX operated by Germanwings.” Available at: https://www.bea.aero/uploads/tx_elydbrapports/BEA2015-0125.en-LR.pdf

Bureau of Labor Statistics (2011) “Aircraft Pilots and Flight Engineers” in Occupational Outlook Handbook, 2010-11 Edition. Washington D.C.: U.S. Department of Labor.

Button, K. (2014) “Opening the Skies Put Free Trade in Airline Services on the Transatlantic Trade Agenda” Policy Analysis #757. Washington D.C. CATO Institute

Button, K. & Yuan, J. (2013) “Airfreight Transport and Economic Development: An Examination of Causality”, Urban Studies Vol. 50(2): 329–40.

CAPA (2014) “Norwegian Air Shuttle’s Long-Haul Business Model. “Flag of convenience” or Fair Competition?”. Available at: http://centreforaviation.com/analysis/norwegian-air-shuttles-long-haul-business-model-flag-of-convenience-or-fair-competition-146928

—— (2013) “Southwest Airlines Records Strong Financial Results as its Offical Dehubbing of Atlanta Closes”. Available at: http://centreforaviation.com/analysis/southwest-airlines-records-strong-financial-results-as-its-official-de-hubbing-of-atlanta-closes-135870.

—— (2012) “Low cost carriers”. Available at http://centreforaviation.com/profiles/hot-issues/low-cost-carriers-lccs

Cappelli, P. (1985) “Competitive Pressures and Labor Relations in the Airline Industry”, Industrial Relations Vol. 24(3): 316-38.

CATO Institute (2014) “A Compromise to Advance the Trade Agenda: Purge Negotiations of Investor-State Dispute Settlement”. Available at: http://www.cato.org/publications/free-trade-bulletin/compromise-advance-trade-agenda-purge-negotiations-investor-state

Ch-aviation.com (2016) “Ryanair Could Close Oslo Rygge Base this Winter”. Available at: http://www.ch-aviation.com/portal/news/43639-ryanair-could-close-oslo-rygge-base-this-winter

Civil Aviation Authority, Norway (2013a) Annual Report. Oslo: Luftfartstilsynet

—— (2013b) “Inspection Report following the Health, Safety, and Environment (HSE) Inspection at Ryanair, Moss Airport Rygge. Oslo: Luftfartstilsynet

Citizens for Tax Justice (2014) “The Sorry State of Corporate Taxes”. Washington D.C.: CTJ. Available at: http://www.ctj.org/corporatetaxdodgers/sorrystateofcorptaxes.pdf

Citizens Information (2016) “Losing Your Job: Entitlements”. Available at: http://www.citizensinformation.ie/en/employment/unemployment_and_redundancy/losing_your_job/losing_job_entitlements.html

Clark, A. (2005) “The Guardian Profile: Michael O’Leary”, The Guardian, June 24.

Coleman, S. (2014) “Evidence to the US Department of Transport in the Application of the Norwegian Airline Group (Norwegian) for a Foreign Air Carrier Permit”. Washington D.C.: DOT.

Copenhagen Economics (2012) “Airport Competition in Europe”. Copenhagen: Copenhagen Economics.

Corporate Europe Observatory (2016) “Dangerour Regulatory Duet”. Avialable at: http://corporateeurope.org/sites/default/files/attachments/regulatoryduet_en021.pdf

Creaton, S. (2004) Ryanair: How a Small Irish Company Conquered Europe. London: Aurum Press.

Crewlink International (2015) “Cabin Crew: The Job”. Available at: http://www.crewlinkcareers2015.com/about-the-job/

— (No Year) “The Rough Guide to Working for Crewlink: Operating on Ryanair Aircraft” [internal staff document].

Crowne Plaza Hotels (2013) “Business Meetings in the Modern World: Insights and Steps to Success”. Available at: http://www.ihgplc.com/files/pdf/Crowne_Plaza_Meetings_report_November_2013.pdf

Department of Transport (2015) “Air Travel Consumer Report” (various months). Available at: https://www.transportation.gov/airconsumer/air-travel-consumer-reports-2015

Dennis, N. (2007) “Stimulation or Saturation? Perspectives on the European Low-Cost Airline Market and Prospects for Growth”, Journal of the Transportation Research Board, 52-9.

Dicken, P. (2007) Global Shift: Transforming the World Economy. London: SAGE.

Doganis, R. (2010) Flying Off Course: Airline Economics and Marketing (4th Ed.). London: Routledge.

Eberhart, P. (2014) “Investment Protection at a Crossroads The TTIP and the Future of International Investment Law” Friedrich Ebert Stiftung. Available at: http://library.fes.de/pdf-files/iez/global/10875.pdf

EIRO (2015) “Turbulent Times in Air Transport: Recent Collective Disputes And The ‘Race To The Bottom’”. Available at: http://www.eurofound.europa.eu/observatories/eurwork/articles/working-conditions-industrial-relations-business/turbulent-times-in-air-transport-recent-collective-disputes-and-the-race-to-the-bottom

Elvebakk, E. (2015) “Between Control and Collaboration: Transport Safety Inspectorates in Norway” TØI Report 1404/2015. Oslo: TØI

ETF-TTD (2014) “Joint Submission of the European Transport Workers’ Federation and the Transportation Trades Department to DOT’s August 4 Notice”. Available at: http://ttd.org/policy/federal-comments/ttd-and-european-transport-workers-federation-oppose-nais-bid-for-exemption/

Euractive (2015) “Commission to Review Competition From Gulf-Based Airlines” March 17th. Available at: https://www.euractiv.com/section/competition/news/commission-to-review-competition-from-gulf-based-airlines/

European Cockpit Association (2015) “ECA Comments of the Draft Multilateral Air Services Agreement in the Framework of Developing Economic Rules for ICAO”. Available at: https://www.eurocockpit.be/sites/default/files/eca_comments_new_multilateralasa_pp_15_0410_f.pdf

Eurocontrol (2014) “PRB Annual Monitoring Report (Volume 1): European Overview and PRB Recommendations.” Brussels: Eurocontrol.

European Commission (1996) Impact of the Third Package of Air Transport Liberalization Measures. Brussels: European Commission.

European Federation for Transport and Environment (2010) “Grounded: How ICAO Failed To Tackle Aviation and Climate Change and What Should Happen Now. Available at: http://www.transportenvironment.org/sites/te/files/media/2010_09_icao_grounded. pdf.

European Transport Workers’ Federation (2014) “ETF Position On TTIP”. Available at: https://www.dnmf.no/Documents/ETF%20position%20on%20TTIP%20final%20EN%20(2).pdf

Federal Aviation Administration (2006) “Approach and Landing Accident Reduction: Sterile Cockpit, Fatigue.” Memo to SAFO (06004) 04/28/06.

— (2011) “FAA Aerospace Forecasts: Fiscal Years 2011-2031.” Washington D.C. Available at: https://www.faa.gov/data_research/aviation/aerospaceforecasts/media/2011%20Forecast%20Doc.pdf

Financial Times (2015) “US Airlines Seek Action against Gulf Carriers” March 5th.

Forsyth, P., Gillen, D., Mueller, J., & Niemeier, H.M. (Eds.), (2010). Airport Competition. Aldershot: Ashgate

Ghent Report (2015) Atypical Employment in Aviation. Authors: Y. Jorens, D. Gillis, L. Valcke & J. De Coninck. Brussels: European Commission.

Gillen, D., & Lall, A. (2004) “Competitive Advantage of Low-Cost Carriers: Some Implications for Airports”, Journal of Air Transport Management, Vol. 10(1): 41-5.

Gittell, J.H., Von Nordenflycht, A. & Kochan, T.A. (2004) “Mutual Gains or Zero Sum? Labor Relations and Firm Performance in the Airline Industry”, Industrial and Labor Relations Review Vol. 57(2): 163-79.

Goetz, A.R. (2002) ‘Deregulation, Competition, and Anti-Trust Implications in The US Airline Industry’ Journal of Transport Geography Vol. 10(1): 1-19

Goetz, A.R., Sutton, C.J., (1997) The Geography of Deregulation in The US Airline Industry. Annals of the Association of American Geographers Vol. 87(2): 238–63.

Goetz, A.R. and Vowles, T.M. (2009). The good, the bad and the ugly: 30 years of US Airline Deregulation. Journal of Transport Geography Vol 17(4): 251-263

Goodman (2008) “Takeoff and Descent of Airline Employment” Monthly Labor Review October. Available at: http://www.bls.gov/opub/mlr/2008/10/art1full.pdf

Graham, A. (2008). Managing Airports (3rd ed.). Oxford: Butterworth Heinemann/ Elsevier

Grubesic, T.H., Wei, R., Murray, A.T. & Wei, F. (2014) “Essential Air Service in the United States Exploring Strategies to Enhance Spatial and Operational Efficiencies”, International Regional Science Review. Published online before print. DOI: 10.1177/1012690214532653

Huphreys, I., Ison, S., & Francis, G. (2006) “A Review of the Airport-Low Cost Airline Relationship”, Review of Network Economics, Vol. 5(4), 413-20.

IATA (2015) World Air Transport Statistics 60th Edition. Available at: http://www.iata.org/publications/store/Pages/world-air-transport-statistics.aspx

Ignaccolo and Inturri, 2000 ‘A Fuzzy Approach to Overbooking in Air Transportation’ Journal of Air Transportation World Wide Vol. 5(2): 19-38

International Transport Workers Federation (2009) “Stressed and Fatigued on the Ground and in the Sky: Changes from 2000 – 2007 in civil aviation workers’ conditions of work. A global study of 116 countries in Africa,Asia/Pacific, Middle East, North America, Latin/South America, and Europe in the post – 9/11 era”. Available at: http://unhealthywork.org/wp-content/uploads/Published_ITF_Stress_and_Fatigue_Study_Report-1.pdf

Irish Aviation Research Institute (2016) “Norwegian Air International Fleet List”. Available at: http://irishaviationresearchinstitute.blogspot.no/p/norwegian-air-international-fleet-list_16.html

Irish Independent (2016) “Norwegian Air's Irish Unit Posts Near-$60m Loss”. August 12th.

Irish Times (2016a) “Opposition to Norwegian Air International Plans” August 9th.

— (2016b) “German Investigators Raid Six Ryanair Bases” July 6th.

Julsrud TE, Gjerdåker A and Thune-Larsen H. (2011) “Luftfartens betydning i en global verden.” TØI Rapport 1158/2011. Oslo: Transportøkonomisk Institutt.

Kahn, A. (1971) The Economics of Regulation: Principles and Institutions Vol 1 & 2. Cambridge (MA): The MIT Press.

— (1988) “Surprises of Airline Deregulation”, The American Economic Review Vol. 78(2): 316-322

— (2004) Lessons from Deregulation: Telecommunications and Airlines after the Crash. Washington, D.C: AEI-Brookings Joint Center for Regulatory Studies.

Kangis, P. & O’Reilly, M. D. (2003) “Strategies in a Dynamic Marketplace: A Case Study in the Airline Industry”, Journal of Business Research Vol. 56(2):105–11.

Karadelis, K. (2012) “Can Veolia Trash Egypt at ICSID?”, Global Arbitration Review Vol. 28. Available at: http://globalarbitrationreview.com/news/article/30644/can-veolia-trash-egypt-icsid.

Kjos, B. (2016) “Words from the CEO: Safe Summer Operations”, internal memo to Norwegian staff members.

Kropp, T (2015) “Subsidies to carriers from the Gulf – Impact on airlines of the Lufthansa Group”, Gulf Carriers Stakeholder Engagement Process /Docket No. DOT-OST-2015-0082, DOS-2015-0016, DOC-2015-0001

Lee DS (2010) Aviation Greenhouse Gas Emissions. In: ICAO Environmental Report 2010. Available at: http://www.icao.int/environmental-protection/Pages/EnvReport10.aspx.

Le Monde Diplomatique (2014) “The Injustice Industry” June.

Levine, M. (1965) “Is Regulation Necessary? California Air Transportation and National Regulatory Policy”, Yale Law Journal Vol. 74(8): 1416-47.

Lucio MM, Turnbull P, & Blyton P, (2001) “Using Regulation: An International Comparative Study of the Civil Aviation Industry in Britain and Spain.” European Journal of Industrial Relations Vol. 7(1): 49-70.

Malighetti, P. Paleari, S. & Redoni, R. (2016) “Base Abandonments by Low-Cost Carriers”, Journal of Air Transport Management, Vol. 55(2): 234-44.

Mason, K.J. (2001) “Marketing Low-Cost Airline Services to Business Travellers” Journal of Air Transport Management Vol. 7: 103-9.

Mendelsohn, A.J. (2014) “Unravelling Open Skies”, McGill Occasional Paper Series I. Available at: https://www.mcgill.ca/iasl/files/iasl/occasional_paper_i_unravelling_open_skies_final.pdf

Ministry of Transport and Communication, Norway (2016) “Consultation Paper on Globalisation and Increased Competition in Civil Aviation: Challenges and Possible Consequences for Norwegian Aviation.” Oslo: Ministry of Transport and Communication.

New York Times (2009) “Inspector Predicted Danger Before Buffalo Crash” June 3rd

Neal, Z., & Kassens-Noor, E.(2011) “The Business Passenger Niche: Comparing Legacy Carriers and Southwest During A National Recession” Journal of Air Transport Management Vol.17(4): 231-32

National Mediation Board (2016) “Findings Upon Investigation in the Matter of the Application of the Norwegian Cabin Crew Association”. Washington D.C.: NMB.

National Transport Safety Board (2009) “Loss of Control on Approach Colgan Air, Inc. Operating as Continental Connection Flight 3407 Bombardier DHC-8-400, N200WQ Clarence Center, New York February 12, 2009”. Available at: http://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1001.pdf

National Transportation Safety Board (1995) “Factors That Affect Fatigue in Heavy Truck Accidents, Highway Safety Study” NTSB/SS-95/01. Washington, D.C.: NTSB

Newmyer, D. (1990) “The Impact of Deregulation on Airports: An International Perspect”, Journal of Aviation, Vol. 1(1): 59-79.

Norwegian Centre for Transport Research (2014) “International and Domestic Air Travel in Norway 2013” TØI Report 1335/2014

Olsvik, E.A. (2015) “Challenges of Aviation Security Regulation in Norway Post 9/11”. Unpublished Ph.D thesis, University of Stavanger.

O’Sullivan, M & Gunnigle, P. (2009) “Bearing All the Hallmarks of Oppression – Union Avoidance in Europe’s Largest Low Cost Airline”, Labor Studies Journal, Vol. 34(2):252-70.

Oxenbridge, S., Wallace, J. & White, L. (2010) “A Comparative Analysis of Restructuring Employment Relationships in Quantas and Aer Lingus: Different Routes, Similar Destinations”, The International Journal of Human Resource Management Vol. 21(1): 180-196.

Oxford Economic (2011) Economic Benefits from Air Transport in Norway. Oxford: Oxford Economics.

Partnership Report (2016) ““Hidden Financial Documents Point to Over $7 Billion in Additional Subsidies for Qatar Airways in Fiscal 2014-15” Partnership for Open and Fair Skies. See http://www.openandfairskies.com/

Percoco, Marco. (2010) “Airport Activity and Local Development: Evidence from Italy”, Urban Studies Vol. 47(11): 2427–43.

Reuters (2012) “Middle East Airlines “Unstoppable”” March 12th

Roehrs T., Burduvali, E., Bonahoom, A. et al. (2003) “Ethanol and Sleep Loss: A “Dose” Comparison of Impairing Effects”, Sleep Vol. 26(8):981-5.

Ryanair (various years) Annual Report. Dublin: Ryanair.

Ryanair (2016) “Oslo Rygge Base Closure & 16 Route Cancellations After Norwegian Govt Introduces Environmentally Unfriendly Tax”. Available at: http://corporate.ryanair.com/news/news/160601-oslo-rygge-base-closure-16-route-cancellations-after-norwegian-govt-introduces-environmentally-friendly-tax/?market=en#sthash.GXFvA2Yo.dpuf

Salvanes KG, Steen F and Sørgård L. (2001) Collude, compete, or both? Deregulation in the Norwegian Airline Industry. Journal of Transport Economics and Policy 37: 383-416.

Steer Davies Gleave. (2012) “Study on the Effects of the Implementation of the EU aviation Common Market on Employment and Working Conditions in the Air Transport Sector Over the Period 1997–2010”. Prepared for the European Commission, DG MOVE. Available at http://ec.europa.eu/transport/modes/air/studies/doc/internal_market/employment_project_final_report_for_publication.pdf

—— (2015) “Study on Employment and Working Conditions in Air Transport and Airports” Prepared for the European Commission, DG MOVE. Available at: http://ec.europa.eu/transport/modes/air/studies/doc/2015-10-employment-and-working-conditions-in-air-transport-and-airports.pdf

Underthun, A. and Bergene, A.C. (2014) “Framtida til norsk luftfart: Selskapsstrategier og partsrelasjoner i en liberalisert luftfartsvirkelighet.” *AFI-report 11/2014* Oslo: Arbeidsforskningsinstituttet/Work Research Institute, Oslo and Akershus University College of Applied Sciences

Underthun, A. (2015) “Reguleringen av internasjonal luftfart: Mulighetsrom og maktbalanse.” Presentation at Luftfartskonferansen, organised by the Norwegian Civil Aviation Authority, 28th of January 2015.

U.S. Air Transport Association (2006) “Annual Revenue and Earnings”. Washington DC: Air Transport Association

U.S. Air Transport Association (2003) “Airlines in Crisis: The Perfect Economic Storm”. Washington DC: Air Transport Association

The Economist (1997) “Freedom in the Air” April 3rd.

The Economist (2015) “Feeling the Heat” March 6th

Thomas, A. R. (2003). Aviation insecurity: The New Challenges of Air Travel. Amherst, NY: Prometheus Books

Transportation Trades Department (2015) “U.S. Trade Negotiators Must Keep Aviation and Maritime Out of TTIP”. Available at: http://ttd.org/wp-content/uploads/2015/10/TTIP-Policy-Statement.pdf

Tretheway M and Andriulaitis R. (2015) “What Do We Mean By A Level Playing Field in International Aviation? Transport Policy Vol.43(1): 96-103.

Vogel D (2003) “The politics of risk regulation in Europe and the United States”. Institut du Développement Durable et des Relations Internationales. Available at: http://www.iddri.org/Publications/Collections/Idees-pour-le-debat/id_0301_vogel.pdf

Vowles, Timothy M. (1999) “Predicting the Loss of Commuter Air Service in the United States,” Journal of Air Transport Management, 5, 13–20.

Wall Street Journal (2007) “As Pay Falls, Airlines Struggle to Fill Jobs” May 16th.

Wall Street Journal (2010) “The Parking Lot Where Pilots Sleep” April 15th.

Washington Post (2015) “The Trans-Pacific Partnership Clause Everyone Should Oppose” February 25th

Warnock-Smith, D., & Potter, A. (2005) “An Exploratory Study into Airport Choice Factors for European Low-Cost Airlines” Journal of Air Transport Management, Vol. 11(6): 388-92.

Weia, F. & Grubesicb, T.H. “A Typology of Rural Airports in the United States: Evaluating Network Accessibility”, The Review of Regional Studies Vol. 45(1): 57-85.

Weller, S. A. (2009). Shifting spatialities of power: The case of Australasian aviation. Geoforum, 40(5), 790-799.

Wiener JB, Rogers MD, Hammitt JK, et al. (Eds.) (2011) The Reality of Precaution: Comparing Risk Regulation in the United States and Europe. London: RFF Press.

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