



**A study of the effects of
the United Kingdom leaving the European Union
on airlines flying to and from the UK**

Prepared for:



The Industry Affairs Committee of
The International Air Transport Association - IATA

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This report was prepared for IATA by Taylor Airey, in conjunction with Frontier Economics.



EXECUTIVE SUMMARY

Context

On the 23rd June 2016, the United Kingdom (UK) voted to leave the European Union (EU). In March 2017 the UK government triggered Article 50, announcing that it would be invoked on 29th March 2019, marking the UK's exit from the EU ('Brexit').

Since June 2017, negotiations between the parties have continued and discussions have been ongoing throughout the course of this study. As this study concludes however, future relationships after the UK's exit remain unclear.

The UK has the largest aviation industry in Europe¹, and the UK's geographical position in the network is key, with around 80 per cent of all North Atlantic traffic passing through the UK or Irish controlled airspace.² Changes to the relationship between the UK and the EU could potentially have considerable implications for all players in this important market.

Numerous stakeholders in the aviation sector continue to call for greater political certainty to enable contingency plans to be developed. As the representative trade body for the interests of 290-member airlines across 120 countries.

Other studies have sought to assess the potential trade or economic impacts for the sector of the UK exiting the EU. However, in support of its role, IATA's Industry Affairs Committee (IAC), now wishes to better understand the consequences on day-to-day operations for airlines flying between the UK and other countries/ regions in a post-'Brexit' environment.

Approach

In response to the IAC brief, this paper considers a number of topics that are critical to airlines successfully 'doing business' as follows:

- **Flight operations and safety** – safety and security framework - the future role of EASA, Air Traffic Management and the Single European Sky (SES);
- **Air Services Agreements** – future EU-UK and UK-Third country agreements; and
- **Border Management** – Customs and Immigration processes at the EU/ UK border;
- **Aviation Security** – future recognition of common standards;
- **Ground Operations** – market competitiveness at UK airports;
- **Slot Process** – future slot management rules;
- **Consumer Protection** – passenger rights, fare transparency, and, Passengers with Reduced Mobility (PRMs);
- **Environment** and the EU Emissions Trading Scheme (EU-ETS);
- **Labour Market** – cross-border movement of aviation skills.

To identify the potential implications to airlines, the study has used a combination of:

¹ HM Government. April 2018. Beyond the Horizon – The Future of UK Aviation

² NATS. 'Nat News' .2016. Accessed July 2018.

- Information in the Public domain (e.g. EU notices to stakeholders, UK Parliament publications, Technical Notices, stakeholder positioning papers);
- Interviews with European and UK aviation industry stakeholders;
- IATA subject matter experts; and
- Taylor Airey expertise.

Important considerations

- The implications described in this report vary significantly depending on the airline's operating model and on where they are domiciled; whether in the UK, in an EU27 country or in the rest of the world.
- The timing of this study and the lack of significant clarity in the ongoing Brexit negotiations to date means that there is a **high level of uncertainty on any Brexit implications for airlines** we describe.
- **A comprehensive Air Services Agreement between the EU and UK**, assumed as the basis for this study, **could take a variety of forms**, particularly in terms of access rights and the degree of regulatory convergence assumed; this could significantly affect the implications described in this report.
- Furthermore, there is still a reasonable possibility of a number of **different scenarios for a future EU-UK relationship**, particularly should the UK leave the EU without a deal. These alternate scenarios could have markedly different implications for airlines (especially UK registered carriers) from those arising from the base scenario.

Key findings

We have assessed the Brexit implications on airlines doing business in the case of:

- The '**Base**' scenario in which a Withdrawal Agreement is agreed, and a **comprehensive EU-UK ASA** is negotiated within the timelines of a transition period
- An alternate '**No Deal**' in which there is no agreed Withdrawal Agreement or future relationship and a 'bare bones' EU-UK ASA is implemented from March 2019

Base scenario

We have carried out an assessment of each of the dimensions in the base scenario. A short description of the results of this assessment is given below.

Red rating – most significant and least clear Brexit impacts:

- **Air Services Agreements** – whilst the base scenario brief suggests that a future comprehensive EU-UK ASA could be negotiated, there are a range of sub-options between a comprehensive agreement and other arrangements that could provide access between the EU and UK aviation markets. In some of these sub-options, it is possible that different levels of restrictions could be applied, and different degrees of regulatory convergence assumed.
- **Safety Framework (EASA)** – the future framework for safety and security regulation as it will apply to the UK continues to be uncertain, with an ongoing divergence of views on the UK's future participation in EASA. This is, in part, dependent on the outcome of

discussions related to the acceptability of EUCJ 'direct' or 'indirect' jurisdiction as the ultimate arbiter in disputes relating to aviation safety. The issues of licensing, certification and approvals impacted by this topic however are absolutely critical to airlines doing business.

- **Aviation Security** – as a part of the regulatory framework described above, Aviation Security is a critical topic to airlines doing business for which clear outcomes cannot yet be determined.
- **Border Management** – Future customs and immigrations solutions at an EU-UK level remain unclear and the impact that Brexit will have on airlines doing business is therefore highly unclear. Whilst the degree of impact will be different for airlines with different business models, this area will most impact on passenger facilitation and cargo operations. In particular, additional checks at the border will impact on MRO operators who rely on 'just in time' movement of aircraft parts. The potential disappearance of current trade facilitation tools (e.g. transit simplifications for movement to/from EU Member States) could also increase costs due to resulting administrative burdens and possible requirements for new financial guarantees.

Amber rating – significant issues where there is a greater degree of clarity of outcomes:

- **Air traffic management (SES)** – the fundamental principles of an integrated approach to the management of Europe's skies would continue to be applied post-Brexit and the UK would continue to play a significant part in driving this agenda, albeit that the mechanisms for doing so may change.
- **Environment** – relative to some of the other issues considered in this report, the applicability in future of the EU-ETS to UK aviation is considered less impactful. Whilst a longer-term future UK approach (based on EU-ETS, CORSIA or some other scheme) is to be determined, the implications of these decisions will be apparent later than some other impacts discussed in this study.

Green rating – lower significance and/or greater clarity regarding the future outcome:

- **Labour** – the potential for staff shortages in aviation, particularly in skilled roles such as pilots is a current issue regardless of Brexit. The Brexit outcome in this respect is most clear – the UK is committed to end free movement of labour between the UK and EU. Whilst this may well exacerbate the current situation for some carriers, action plans should already be in place to address risks of future labour shortfalls.
- **Slots** – whilst this is a business-critical issue for airlines there a reasonable degree of clarity to the approach to be applied in the UK in a post-Brexit environment especially relating to the business as usual environment. There is less clarity concerning the allocation of large volumes of new slots when Heathrow's third runway becomes operational but this is not a Brexit-driven issue.
- **Consumer Protection** – The UK's long-standing principles and approach to consumer protection are likely to continue post-Brexit and there is likely to be future equivalence on topics such as compensation, fare transparency and services for Passengers with Reduced Mobility. The impacts of any future divergence of standards from those applied at present is expected to be relatively small.

- **Ground Handling Competition** – The EU Ground Handling Directive has been implemented in UK law for over 20 years and the level of competition at UK airports suggests the ground handling market continues to be fully liberalised. There is no evidence to suggest that changing regulation in this area would be a priority in a near term post-Brexit timescale.

No Deal scenario

Whilst the alternate 'No Deal' scenario was not considered as the basis for this study, its potential relevance has grown as the study has progressed. We have therefore re-evaluated the assessment of the relative impacts of Brexit on airlines doing business for each topic.

- **Air Services Agreements** – In the case of 'No Deal' there will be no time to negotiate a comprehensive Air Services Agreement between the EU and UK and it is assumed that a 'bare-bones' agreement will be implemented to ensure at least a basic level of air connectivity. The restrictions this contains regarding market access and the degree of regulatory convergence or mutual recognition it assumes could fall anywhere on a wide spectrum of outcomes. Significant changes of EU-UK operations would therefore be realised by March 2019, far earlier than in the 'Base' scenario.
- **Safety and Security framework (EASA)** – The UK would immediately cease to be a member of EASA and interim measures would need to be applied to ensure a rudimentary short term continued recognition of standards equivalence if basic operations were to continue. As in the base scenario, this is an operationally critical issue for airlines doing business which is complex to resolve. The 'No Deal' scenario however brings these challenges into the immediate near term.
- **Border management** – We envisage greater levels of uncertainty over the customs and immigration processes to be applied post March 2019 in a 'No Deal' scenario. As stated in the description of the 'Base' scenario, this has consequential impacts for passenger facilitation, cargo and aircraft parts. The 'No Deal' timescale, however, means that all of these challenges are far more immediate.
- **Environment** – the 'No Deal' scenario could have the implication that a UK government position on the future approach to carbon policy for aviation and the potential to continue to apply EU-ETS rules or similar would need to be reached sooner.

For all other topics, our high-level assessment of the alternate 'No Deal' scenario is that the impacts and the certainty of outcomes will be broadly similar to those described for the base scenario. This would apply to Air Traffic Management (SES), Labour, Slots, Consumer Protection, and Ground Handling Competition.

Part A

Summary & overview

1 INTRODUCTION

1.1 Context for this Study

On the 23rd June 2016, the United Kingdom (UK) voted to leave the European Union (EU). In March 2017 the UK government triggered Article 50 of the Lisbon Treaty, announcing that it would be invoked on 29th March 2019, marking the UK's exit from the EU ('Brexit').

Since June 2017, negotiations between the parties have continued and discussions have been ongoing throughout the course of this study. As this study concludes however, future relationships after the UK's exit remain unclear.

The UK has the largest aviation industry in Europe³, and the UK's geographical position in the network is key, with around 80 per cent of all North Atlantic traffic passing through the UK or Irish controlled airspace.⁴ Changes to the relationship between the UK and the EU could potentially have considerable implications for all players in this important market.

Numerous stakeholders in the aviation sector continue to call for greater political certainty to enable contingency plans to be developed. As the representative trade body for the interests of 290-member airlines across 120 countries.

Other studies have sought to assess the potential trade or economic impacts for the sector of the UK exiting the EU. However, in support of its role, IATA's Industry Affairs Committee (IAC), now wishes to better understand the consequences on day-to-day operations for airlines flying between the UK and other countries/ regions in a post-Brexit environment.

1.2 Key Assumptions

The extent to which airlines flying to and from the UK are affected by the UK exiting the EU is heavily dependent on the type of relationship on aviation the UK negotiates before its departure. Whilst several alternative outcomes are currently still possible, this study considers a base scenario that the ***UK reaches a comprehensive Aviation Services Agreement (ASA) with the EU.***

The IATA 'Base' Scenario

The 'Base' scenario assumes that the current negotiations conclude in Autumn 2018 allowing both a 'Withdrawal Agreement' and a declaration on future relationships to be agreed in principle and voted on by both the UK and EU parliaments prior to March 2019.

The draft Withdrawal Agreement allows for a transitional, implementation period which runs through to 31st December 2020.⁵ During this period the UK will transcribe the Acquis Communautaire into UK law under the 2018 EU (Withdrawal) Act⁶ and all EU treaties and legislation in the areas of EU competence will retain supremacy over UK legislation.

For aviation, this process during the transition period will specifically apply to the following areas of legal and policy competence:

- Aviation; including;

³ HM Government. April 2018. Beyond the Horizon – The Future of UK Aviation

⁴ NATS. 'Nat News' .2016. Accessed July 2018.

⁵ https://ec.europa.eu/commission/sites/beta-political/files/draft_agreement_coloured.pdf

⁶ <http://www.legislation.gov.uk/ukpga/2018/16/contents/enacted>

- Internal market
- International aviation
- Safety
- Security
- Environment
- Air Traffic Management (Single European sky and SESAR)
- Enforcement/ EUCJ
- Competition
- State Aid
- Social Dialogue.

In line with the original brief provided by IATA, this study assumes that, by the end of the transition period, the UK and the EU will have successfully negotiated a comprehensive Aviation Services Agreement (ASA). It is assumed that this new relationship is negotiated between the UK and the EU as a bloc, as though it were any third country with an interest in liberal air travel.

In this case, such a comprehensive ASA would be assumed to allow liberal access between the UK and the EU (and other potential signatories such as Norway) and would imply a degree of regulatory convergence.

When considering the results of this study the following important points must be considered.

At the current stage of the process there is significant scope for variation in the characteristics of the UK-EU agreement as discussed in Section 2.2. This uncertainty adds complexity when it comes to assessing the implications for airlines doing business in a post Brexit environment.

Critical details of the assumed base scenario remain uncertain

Alternatives to the base scenario, including the consequences of ‘No Deal’ for aviation are also still possible

Additionally, there is the potential for the eventual future relationship between the UK and EU on aviation to be governed by an arrangement significantly different to the base scenario of a comprehensive ASA. One way in which this might occur would be if no deal is reached within the current negotiating timelines and the UK is forced to adopt a fall-back solution for traffic rights at short notice to maintain at least the basic operations to and from the UK. These scenarios are also discussed in more detail in Section 2.

1.3 Scope

In response to the IAC brief, this paper considers a number of topics that are critical to airlines successfully ‘doing business’ as follows:

- **Flight operations and safety** – safety and security framework – the future role of EASA, Air Traffic Management and the Single European Sky (SES);
- **Air Services Agreements** – future EU-UK and UK-Third country agreements; and
- **Border Management** – Customs and Immigration processes at the EU/ UK border;
- **Aviation Security** – future recognition of common standards;

- **Ground Operations** – market competitiveness at UK airports;
- **Slot Process** – future slot management rules;
- **Consumer Protection** – passenger rights, fare transparency, and, Passengers with Reduced Mobility (PRMs);
- **Environment** and the EU Emissions Trading Scheme (EU-ETS);
- **Labour Market** – cross-border movement of aviation skills.

Within the context of the base scenario of a comprehensive UK-EU ASA, we consider the potential options for each topic and the most likely outcome. The implications for airlines doing business are then discussed for the most likely outcome.

Implications are considered from the perspectives of:

- UK-registered carriers;
- EU-registered carriers flying to and from the UK; and
- Non-EU registered carriers flying to and from the UK.

1.4 Methodology

The study has been informed by a combination of inputs:

- Information in the Public domain (e.g. EU notices to stakeholders, UK Parliament publications, Technical Notices, stakeholder positioning papers);
- Interviews with European and UK aviation industry stakeholders;
- IATA subject matter experts; and
- Taylor Airey expertise.

1.4.1 Key publications

A number of key publications have been published in advance of, or during the course of this study which have provided the clearest indication of future implications for aviation. These include:

- House of Commons Committee on Leaving the European Union. Oral Evidence: The UK's negotiating objectives for the withdrawal from the EU. 17 March 2017.
- House of Commons Business, Energy and Industrial Strategy Committee. The impact of Brexit on the aerospace sector. 14 March 2018.
- HM Government. Beyond the Horizon – The Future of UK Aviation. April 2018.
- HM Government. The Future Relationship between the United Kingdom and the European Union. 12 July 2018.
- European Commission. Notice to Stakeholders. Withdrawal of the United Kingdom and EU Rules in the Field of Air Transport. 19 January 2018.
- Council of the European Union. Supplementary directives for the negotiation of an agreement with the United Kingdom of Great Britain and Northern Ireland setting out the arrangements for its withdrawal from the European Union. 29 January 2018.

- European Commission. Notice to Stakeholders. Withdrawal of the United Kingdom and EU Rules on Consumer Protection and Passenger Rights. 27 February 2018.
- European Commission. Notice to Stakeholders. Withdrawal of the United Kingdom and EU Aviation Safety Rules. 13 April 2018.
- EU Commission. Joint statement from the negotiators of the European Union and the United Kingdom Government on progress of negotiations under Article 50 TEU on the United Kingdom's orderly withdrawal from the European Union. 19 June 2018.
- HM Government. Framework for the UK-EU partnership. Transport. June 2018.
- European Commission. Notice to Stakeholders. Withdrawal of the United Kingdom and EU Rules in the Field of Aviation Security and Maritime Security. 5 July 2018.
- Draft Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community. 19 March 2018.
- European Council. Article 50 Guidelines. 23 March 2018.

As negotiations continue through Autumn 2018, directly relevant information continues to be published. For example, as the study concludes in September 2018, the industry is awaiting key publications by the UK CAA and further technical notices from the UK government on the implications of the UK exiting the EU without a deal.

A fuller list of documents informing this study is contained in the Bibliography in Appendix A.

1.4.2 Industry and subject matter experts

During the study we have discussed the topics in scope for the study with a wide variety of stakeholders including UK CAA, NATS, Airlines UK, UK based airlines; and IATA subject matter experts. Whilst all were aware of the purpose of our discussions, we have made all comments non-attributable to individuals or organisations.

It should be noted that certain stakeholders have limited the input they have provided to support this study or been reluctant to participate at all at this time of great uncertainty. This applies, for example to UK government officials and certain airline operators.

1.5 Timing of this study

The primary material to inform the conclusions of this study was collated between June and August 2018. Timing has been driven by a need to inform the next IAC meeting in Tokyo in October.

Simplified Brexit timeline

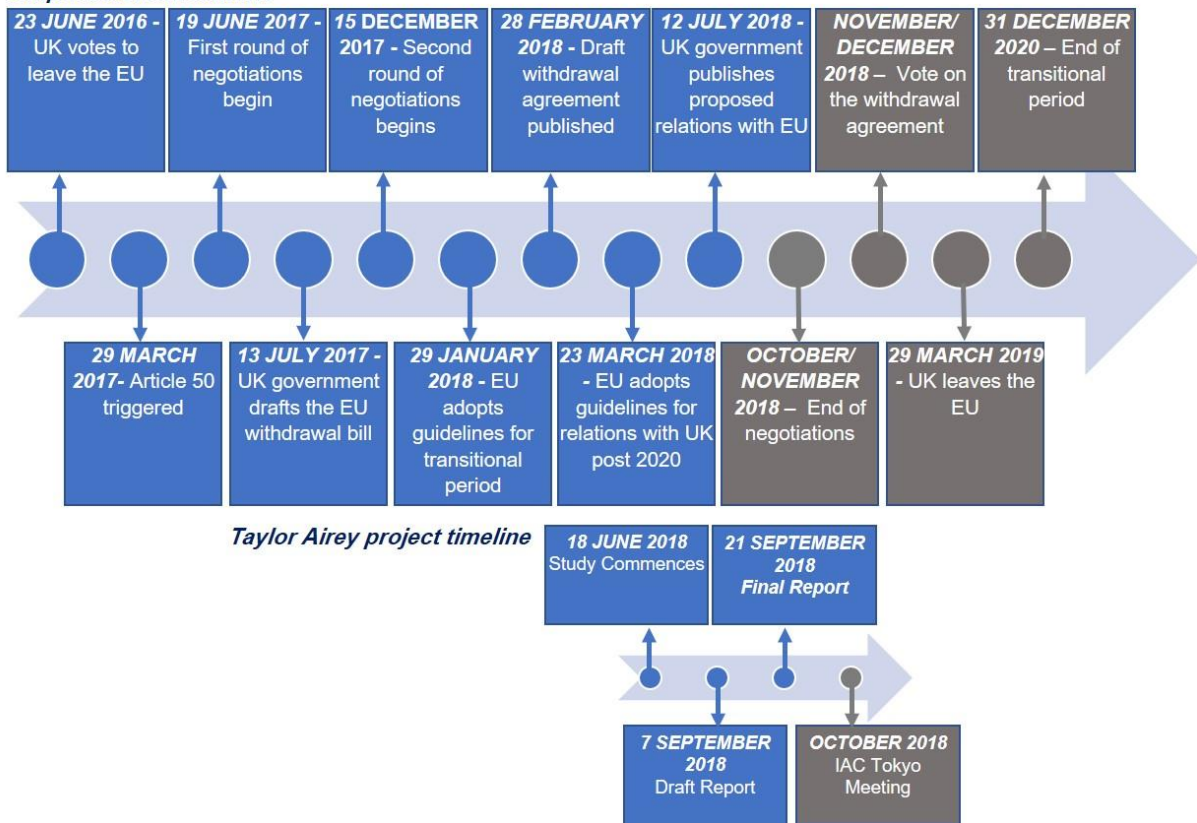


Figure 1: Simplified timeline for UK exiting the EU showing the duration of this study

The duration of the study has coincided with a period of ongoing uncertainty about the future relation between the UK and EU as illustrated in Figure 1.

For this study on impacts on airlines doing business, questions therefore remain about the details of the base scenario assumed or the likelihood of any alternate scenarios, including the aviation consequences of ‘No deal’ for aviation.

It is recommended that this study is updated in October/ November 2018. By this time, it is expected that negotiations should have concluded with a Withdrawal Agreement and an agreed declaration on the future relationship. This will allow the implications for airlines doing business to be more clearly understood.

It is recommended that this report is updated later in 2018

2 FUTURE OF UK-EU AVIATION RELATIONS

2.1 Base scenario

As stated in Section 1.2, this study assumes that, following the transition period in which the status quo prevails, a comprehensive ASA is developed between the UK and the EU bloc, which operates as if it were a single country.

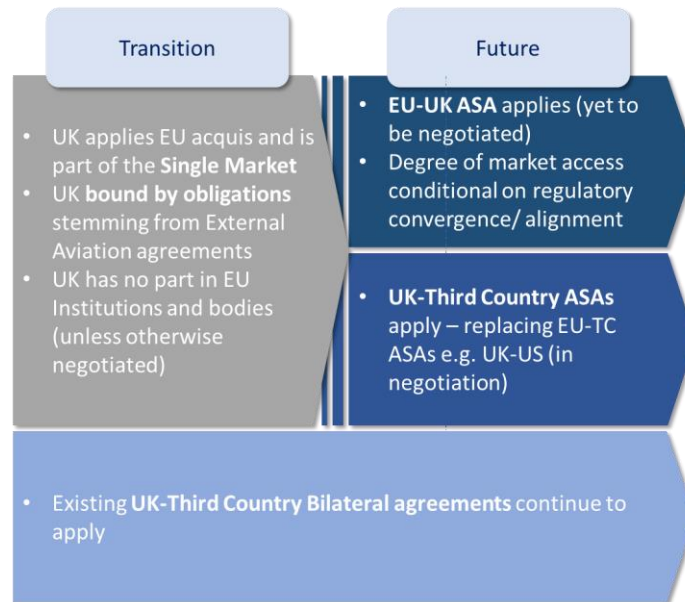


Figure 2: Transition and future status of ASAs involving the UK assumed in the Base scenario of this study

It is assumed that there are a number of key components of such a future Air Services Agreement:

2.1.1 Market access

Whilst preparing for Phase 1 negotiations, former UK Secretary of State for Exiting the European Union, David Davis, confirmed that the UK would be leaving the European Common Aviation Area (ECAA) and all EU-negotiated comprehensive and horizontal agreements.⁷ However, both parties recognise the importance of reaching an Air Services Agreement between the EU and a UK outside the ECAA⁸ which allows continued market access. The UK for example, currently accesses nearly 50 markets through association with the EU, including the United States and would wish to continue to access these important markets.

Whereas the current arrangements allow travel within the ECAA as one single market up to full cabotage even a comprehensive EU-UK agreement could still allow restrictions.⁹

Given its preference for liberalisation of air travel, the ambition for a close relationship with the UK and complexity of implementation, it is unlikely that the EU would negotiate for

⁷ House of Commons Committee on Leaving the European Union. Oral Evidence: The UK's negotiating objectives for the withdrawal from the EU. 17 March 2017.

⁸ European Council. Article 50 Guidelines. 23 March 2018.

⁹ A list describing the freedoms of the air is available in the Appendix.

capacity restrictions on individual routes, however it may include restrictions on the flights that UK-owned carriers can operate within the EU. For example, the EU could grant a deal with the UK equivalent to that with the US: full 3rd, 4th and 5th Freedom Rights but not necessarily anything more.

Ownership and control is another issue that may be addressed along a spectrum. A fully liberalised agreement would allow UK airlines to establish operations in the EU and freely invest in EU airlines and vice versa, although this may cause issues with third party agreements. At the other end of the spectrum, traditional ownership and control criteria could be applied. Furthermore, current EU law permits ownership and control of EU carriers (and hence access to the single market) by nationals of third countries as long as the third country has concluded a reciprocal agreement with the EU. In the case of such an agreement, however, ownership and control of a UK carrier by EU interests could prejudice that carrier's access to third country markets: similarly, for EU carriers with majority UK ownership and control.

While a comprehensive EU-UK agreement may be liberal by global standards, it would amount to a substantial reduction in liberalisation from full integration. The exact terms may vary, but a hypothetical liberal regime with no capacity or designation limits and full 5th freedom rights could lead to a significant reduction in EU-UK air travel. It is also likely to influence how certain carriers choose to be domiciled, whether by altering their location of investment, base of operations or corporate structure.

2.1.2 Safety and security regulation

A comprehensive UK-EU Aviation Services Agreement would also be expected to be based on complementary statements on safety and security matters. The degree of access granted by the ASA is likely to be dependent on the level of convergence or alignment between those elements of the EU air transport acquis, and the regulatory framework that the UK puts in place to replace them.

2.2 Variants on the 'Base' scenario

As can be seen, potential variants still exist with the assumed 'Base' scenario regarding both the nature of the UK's access to the European aviation market, ownership and control, and the degree of common recognition of standards achieved.

The future arrangement is entirely dependent on the ongoing negotiations and the official positions of each party are not yet aligned.

The commission's guidelines for the UK-EU relationship post transitional period states that the EU will seek to achieve continued connectivity 'through an air transport agreement, combined with aviation safety and security', whereas the UK's equivalent paper is more ambitious and specific, stating its wish to maintain the status quo in terms of market access and safety using the very liberal EU-Canada ASA as an existing precedent.

Other alternative arrangements for air connectivity between the UK and ECAA markets could also be developed from the negotiation of a UK-EU ASA. For example, following the precedent of Switzerland (not a member of the EU nor the ECAA), the EU and the UK could agree a system whereby EU-UK travel falls within the full freedoms and regulations provided by the ECAA, with disputes and administration handled by a Joint Committee. Depending on the exact arrangement, issues regarding EUCJ direct jurisdiction would have to be overcome

where the mechanism for management could not solely be driven by the EU institutions. Furthermore, the UK would be able to choose when to seek membership of a multilateral Air Services Agreement (ASA) as part of the EU bloc, or when to remain outside it.¹⁰

The economic difference between continued membership of the ECAA and liberal access to the ECAA is unclear. As indicated by World Trade Organisation (WTO) research, security and time in ASAs is an important factor in building bilateral travel. Generally, the impact on travel would be dependent on the exact terms of a deal. A deal that leaves UK access to the ECAA identical to current arrangements may still be seen as “picking and choosing” the benefits of EU membership, or as submitting to the sovereignty of a foreign court.

2.3 Possible Alternative Scenarios – ‘No Deal’

Whilst the concept of a transitional period has been agreed in principle in the draft Withdrawal Agreement, its application in practice relies on a final Withdrawal Agreement and declaration of future relationships being agreed before the departure date. It has been a long-standing principle of negotiations to date that, ‘nothing is agreed until everything is agreed.’

2.3.1 Multilateral EU-UK agreement

Without a Withdrawal Agreement and an implementation period in which to complete negotiations on future relationships with regard to aviation, it would be very difficult to agree a comprehensive (or indeed any) Aviation Services Agreement with the full range of characteristics described above.

The current rate of progress towards an agreed position leaves little time to complete negotiations and allow enough time for agreements to be ratified by the relevant legislatures. There is therefore now a possibility that there may be ‘no deal’ in place before the UK’s exit from the EU in March 2019.

Unlike trade in manufactured goods, there are no WTO rules to fall back on - flying rights are governed by bilateral agreements between states and blocs.

As this study concludes, the UK government has begun publication of the first of approximately 80 Technical Notices advising businesses of the implications of the UK exiting the EU without a deal. **Expected notices on Air Services, Aviation Safety and Aviation Security however are yet to be published.**

Importantly, the UK CAA have stated that they do not intend to preclude access to UK airspace for non-UK carriers in the event of a ‘no deal’ scenario. However, as a short term, emergency fall-back position, we understand that the EU and UK CAA have plans for a ‘bare bones’ agreement, covering basic 3rd and 4th Freedom traffic rights and safety, to ensure at least a basic level of connectivity. Market access would be significantly limited in this case and such an agreement would be expected to be based on very limited mutual recognition of safety standards.

‘No Deal’ has more severe and earlier impacts for airline market access and flight safety than the ‘Base’ scenario

¹⁰ A full description of Air Services Agreements is available in Section 4

Following this day one position, the UK would be expected to want to develop these arrangements further to ease the likely restrictions that the ‘bare bones’ agreement would impose, particularly on UK registered carriers.

2.3.2 Individual Bilateral Agreements

Either by failure to agree a collective deal, or by a choice to return to Chicago Convention traditions, the UK or EU might prefer negotiating individual agreements with each EU country. There are certain EU-wide conditions on carrier designation that would apply, however restrictions on Freedoms of the Air, routes and capacity would be subject to the consensus of the UK and each individual country. This would involve considerable diplomatic activity, but agreements could be operated in good faith with every relevant EU country in the way that the UK currently manages its relationship with Turkey, or in the way it used to manage its relationship with the United States (the “Bermuda II” framework).

In the unlikely event of a total loss of good will between the UK and EU, as well as each of the Member States, a liberal EU-wide *and* liberal bilateral agreements may not materialise. This would be equivalent to the relationship between Russia and many Western European states, and the resulting limits on air travel. The exact level of such limits would be unclear, but if UK-Russia limits were applied to every UK-EU route, there would be five country-pairs which would require a reduction in at least 1,000 flights per week. The equivalent UK and Spain agreement would allow fewer than 5% of current weekly flights to continue operating under UK-Russia limits.

2.3.3 Remain part of the European Common Aviation Area (ECAA)

Either through an affiliate membership of the European Union (such as the EFTA) or through a new third-party membership (similar to a number of South-Eastern European countries), the UK could maintain its position in the single aviation market. In this scenario, there would be no change to the regulations, ownership conditions or freedoms facing UK carriers, or facing EU carriers operating routes to and within the UK.¹¹ The economic impact to aviation would be equivalent to not leaving the European Union at all, although there may be some temporary costs created by current uncertainty. Politically, this currently contradicts the stated positions of both the European Union and the United Kingdom. It would place many areas under the jurisdiction of European courts – a “red line” for the UK – and could be interpreted as “picking and choosing” the benefits of the EU, something the EU wishes to discourage.

¹¹ A list describing the freedoms of the air is available in the Appendix.

3 SUMMARY OF FINDINGS

3.1 Risk based evaluation approach

3.1.1 Method

In order to gauge the relative Brexit impacts on the 'doing business' issues in the scope of this study, we have created a simple risk evaluation matrix.

For each point we have considered:

- The importance of Brexit on each topic on immediate, continued day-to-day operations on airlines flying to and from the UK – shown on the vertical axis; and;
- The degree of clarity on the current negotiating positions and hence final outcome – shown on the horizontal axis.

This single point evaluation is a consolidation of multiple factors which have been considered in detail for each topic. The more detailed assessment of the impact of Brexit on each individual topic is provided in the relevant sections in Part B of this report.

It is important to note that, in each case we are assessing the Brexit implications on that topic only – where other 'business as usual' uncertainty or change is expected regardless of the EU-UK future relationship this has not been factored into the relative assessment.

This tool purely provides a relative assessment and is only a snapshot as of early September 2018. However, it provides a means of prioritising preparation effort using a risk-based approach.

3.1.2 Definitions

In this assessment the scope of each topic described by the point is as follows:

- **Safety framework (EASA)** – flight operations and safety issues including certification, licensing and approval of parts, aircraft, and organisations. This includes consideration of the UK's potential future participation in EASA – these aspects are described in detail in Section 5.2;
- **Air Traffic Management (SES)** – the UK's continued participation in the Single European Sky (SES) programme and the implications for air traffic management regulation and processes – these aspects are described in more detail in Section 5.3;
- **Air Services Agreements** – the definition of the structure, scope and limitations of a future EU-UK Air Services Agreement - these aspects are described in more detail in Section 4;
- **Border Management** – the future customs and immigration processes affecting the movement of passengers, cargo and freight across UK/ EU borders including the movement of aircraft spares - these aspects are described in more detail in Section 6;
- **Environment** – the future arrangements for management of airline emissions including the applicability of the EU Emissions Trading Scheme (EU-ETS) and, in future CORSIA - these aspects are described in more detail in Section 11;
- **Labour** – the implications on the aviation industry of ending freedom of movement of workers between UK and EU as a consequence of Brexit whilst faced with increasing

demand and an existing shortage of skilled key workers - these aspects are described in more detail in Section 12;

- **Slots** – the future processes applicable for managing slot allocation at UK airports in a post-Brexit environment - these aspects are described in more detail in Section 9
- **Ground Handling Competition** – the potential for the UK authorities to allow less competition for ground handling services at UK airports in a post-Brexit environment, with consequent implications on choice, quality of service and price for airlines - these aspects are described in more detail in Section 8.

The definitions of the ratings on the scale of the matrix and the potential actions airlines should consider for results in each quadrant are as shown in Figure 3.

The topics which we would recommend should be the focus of most effort in contingency planning are those on which Brexit could have the highest operational impact in the short term i.e. those which are rated highest up the vertical axis. Airlines should be most concerned where these topics also have low levels of certainty on their final outcome in the future aviation relationship between the UK and EU.

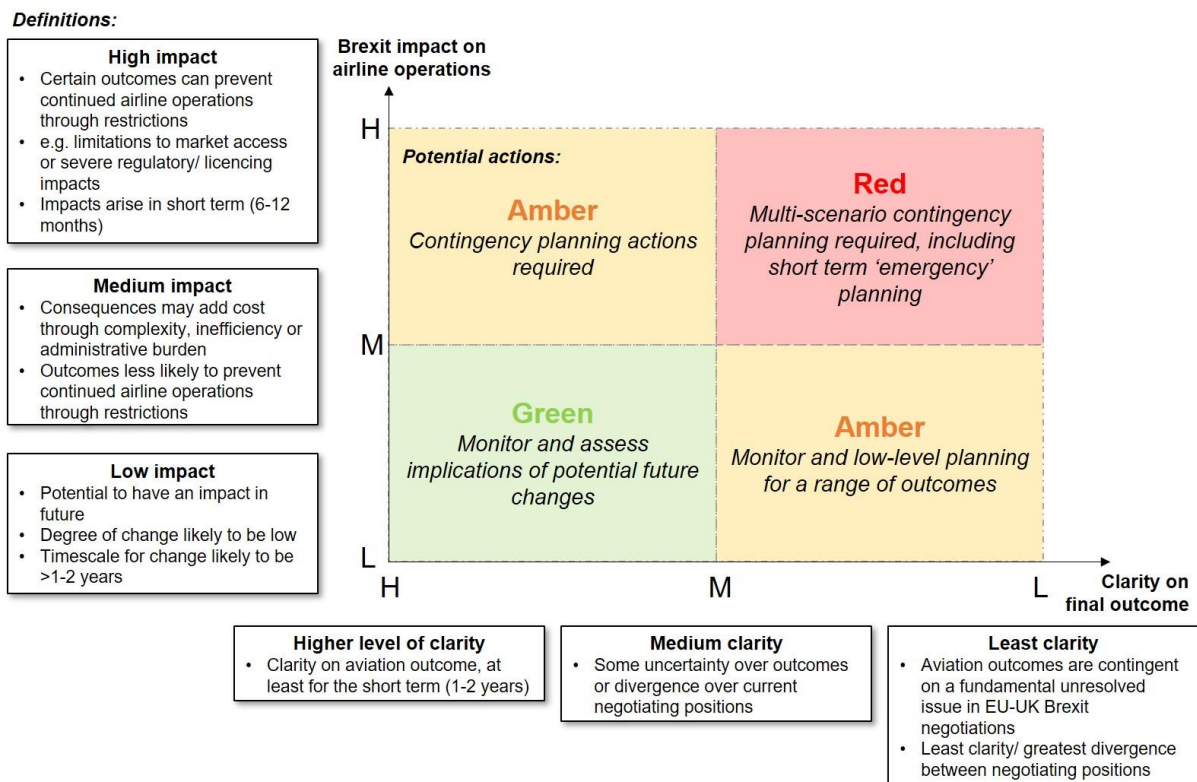


Figure 3: Summary of the risk evaluation matrix

3.2 Results of assessment

We have assessed the Brexit implications on airlines doing business in the case of:

- The **'Base'** scenario in which a Withdrawal Agreement is agreed, and a **comprehensive EU-UK ASA** is negotiated within the timelines of a transition period

- An alternate ‘**No Deal**’ in which there is no agreed Withdrawal Agreement or future relationship and a ‘bare bones’ EU-UK ASA is implemented from March 2019

3.2.1 Base scenario

The results of assessment of the ‘Base’ scenario are illustrated in Figure 4.

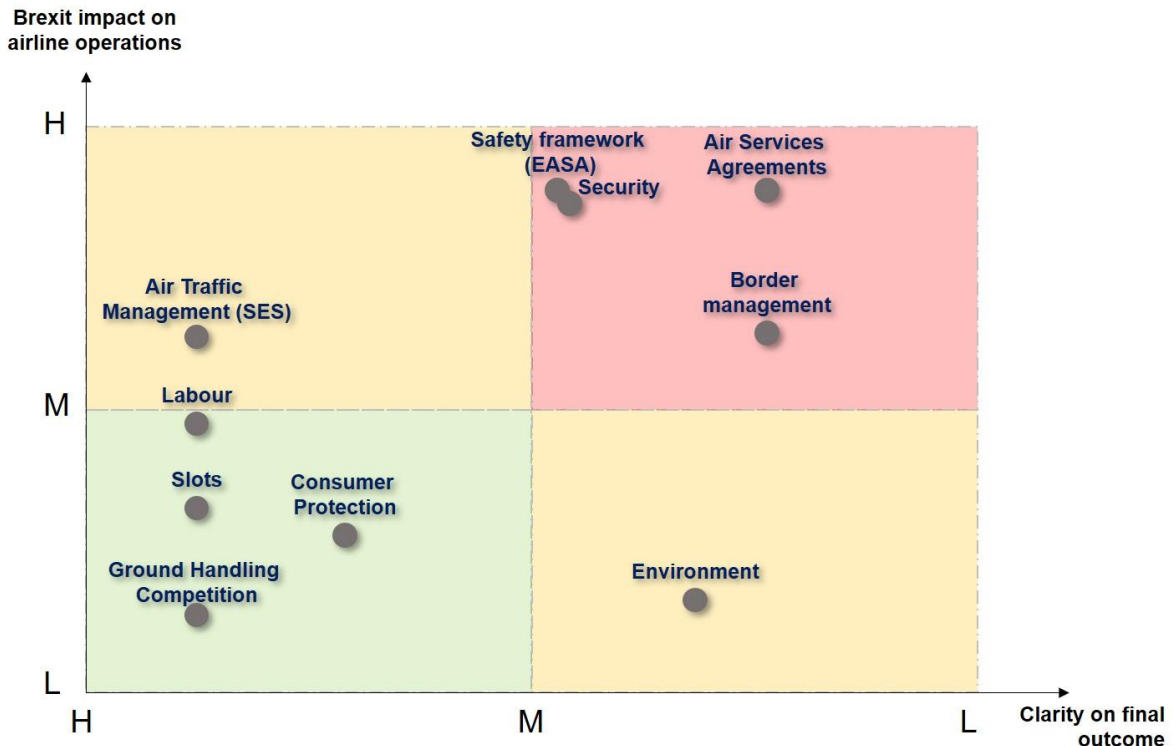


Figure 4: Summary risk assessment on the impact of Brexit on airlines doing business in the ‘Base’ scenario

A short description of the outcome of each assessment is given below. More detailed consideration of this topic is given in the relevant sections of Part B of this report.

Red rating – most significant and least clear Brexit impacts:

- **Air Services Agreements** – whilst the base scenario brief suggests that a future comprehensive EU-UK ASA could be negotiated, there are a range of sub-options between a comprehensive agreement and other arrangements that could provide access between the EU and UK aviation markets. In some of these sub-options, it is possible that different levels of restrictions could be applied, and different degrees of regulatory convergence assumed.
- **Safety Framework (EASA)** – the future framework for safety and security regulation as it will apply to the UK continues to be uncertain, with an ongoing divergence of views on the UK’s future participation in EASA. This is, in part, dependent on the outcome on discussions related to the acceptability of EUCJ ‘direct’ or ‘indirect’ jurisdiction as the ultimate arbiter in disputes relating to aviation safety. The issues of licensing, certification and approvals impact by this topic however are absolutely critical to airlines doing business.

- **Aviation Security** – as a part of the regulatory framework described above, Aviation Security is a critical topic to airlines doing business for which clear outcomes cannot yet be determined.
- **Border Management** – Future customs and immigrations solutions at an EU-UK level remain unclear and the impact that Brexit will have on airlines doing business is therefore highly unclear. Whilst the degree of impact will be different for airlines with different business models, this area will most impact on passenger facilitation and cargo operations. In particular, additional checks at the border will impact on MRO operators who rely on ‘just in time’ movement of aircraft parts. The potential disappearance of current trade facilitation tools (e.g. transit simplifications for movement to/from EU Member States) could also increase costs due to resulting administrative burdens and possible requirements for new financial guarantees.

Amber rating – significant issues where there is a greater degree of clarity of outcomes:

- **Air traffic management (SES)** – the fundamental principles of an integrated approach to the management of Europe’s skies would continue to be applied post-Brexit and the UK would continue to play a significant part in driving this agenda, albeit that the mechanisms for doing so may change.
- **Environment** – relative to some of the other issues considered in this report, the applicability in future of the EU-ETS to UK aviation is considered less impactful. Whilst a longer-term future UK approach (based on EU-ETS, CORSIA or some other scheme) is to be determined, the implications of these decisions will be apparent later than some other impacts discussed in this study.

Green rating – lower significance and/ or greater clarity regarding the future outcome:

- **Labour** – the potential for staff shortages in aviation, particularly in skilled roles such as pilots is a current issue regardless of Brexit. The Brexit outcome in this respect is most clear – the UK is committed to end free movement of labour between the UK and EU. Whilst this may well exacerbate the current situation for some carriers, action plans should already be in place to address risks of future labour shortfalls.
- **Slots** – whilst this is a business-critical issue for airlines there a reasonable degree of clarity to the approach to be applied in the UK in a post-Brexit environment especially relating to the business as usual environment. There is less clarity concerning the allocation of large volumes of new slots when Heathrow’s third runway becomes operational but this is not a Brexit-driven issue.
- **Consumer Protection** – The UK’s long-standing principles and approach to consumer protection are likely to continue post-Brexit and there is likely to be future equivalence on topics such as compensation, fare transparency and services for Passengers with Reduced Mobility. The impacts of any future divergence of standards from those applied at present is expected to be relatively small.
- **Ground Handling Competition** – The EU Ground Handling Directive has been implemented in UK law for over 20 years and the level of competition at UK airports suggests the ground handling market continues to be fully liberalised. There is no evidence to suggest that changing regulation in this area would be a priority in a near term post-Brexit timescale.

3.2.2 No Deal scenario

Whilst the alternate 'No Deal' scenario was not considered as the basis for this study, its potential relevance has grown as the study has progressed. We have therefore re-evaluated the assessment of the relative impacts of Brexit on airlines doing business for each topic as shown in Figure 5.

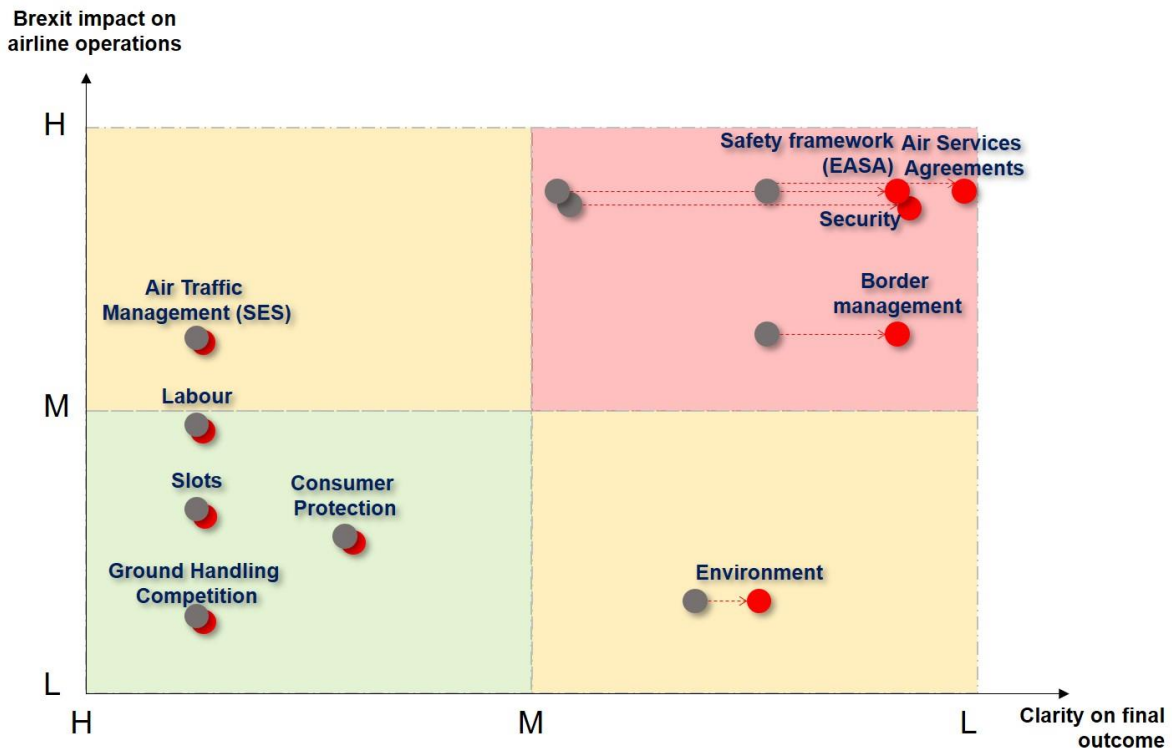


Figure 5: Summary risk assessment on the impact of Brexit on airlines doing business in the alternate 'No Deal' scenario

A brief rationale for the movement in relative risks in each of the topics is given below. Again, a fuller consideration of the 'No Deal' impacts can be found in the relevant section in Part B of this report.

- **Air Services Agreements** – In the case of 'No Deal' there will be no time to negotiate a comprehensive Air Services Agreement between the EU and UK and it is assumed that a 'bare-bones' agreement will be implemented to ensure at least a basic level of air connectivity. The restrictions this contains regarding market access and the degree of regulatory convergence or mutual recognition it assumes could fall anywhere on a wide spectrum of outcomes. Significant changes of EU-UK operations would therefore be realised by March 2019, far earlier than in the 'Base' scenario.
- **Safety and Security framework (EASA)** – The UK would immediately cease to be a member of EASA and interim measures would need to be applied to ensure a rudimentary short term continued recognition of standards equivalence if basic operations were to continue. As in the base scenario, this is an operationally critical issue for airlines doing business which is complex to resolve. The 'No Deal' scenario however brings these challenges into the immediate near term.
- **Border management** – We envisage greater levels of uncertainty over the customs and immigration processes to be applied post March 2019 in a 'No Deal' scenario. As stated

in the description of the 'Base' scenario, this has consequential impacts for passenger facilitation, cargo and, in particular, aircraft parts. The 'No Deal' timescale, however, means that all of these challenges are far more immediate.

- **Environment** – the 'No Deal' scenario could have the implication that a UK government position on the future approach to carbon policy for aviation and the potential to continue to apply EU-ETS rules or similar would need to be reached sooner.

For all other topics, our high-level assessment of the alternate 'No Deal' scenario is that the impacts and the certainty of outcomes will be broadly similar to those described for the base scenario. This would apply to Air Traffic Management (SES), Labour, Slots, Consumer Protection, and Ground Handling Competition.

Part B

Detailed analysis

4 AIR SERVICES AGREEMENTS

4.1 Overview

In this section we describe Air Services Agreements and their potential to impact the demand for and practice of the air travel they regulate. This is key in order to understand the impacts that new trade agreements could have on airlines flying to and from the UK.

It has already been noted in Section 2.2 that, in addition to the base scenario of a comprehensive EU-UK ASA, there are a number of other options for a new EU-UK agreement based on the level of market access granted and restrictions imposed and whether such an agreement is multilateral (at EU level) or it is executed bilaterally between each of the 27 EU Member States and the UK. The consequential level of liberalisation of a future agreement compared with the access it enjoys today through full integration will impact on carriers and passengers as already discussed.

In this section, we discuss two further specific topics:

- The potential characteristics of new UK-Third Country (TC) agreements, which would replace the existing comprehensive EU-TC ASAs which the UK currently accesses as an EU member, using the example of UK-US.
- The potential implications of the UK's exit from the EU on current or future EU-TC agreements.

It is known that the UK is currently in negotiation on bilateral Air Services Agreements with countries currently covered by EU-wide agreements, including with the US.

4.2 Background on Air Services Agreements

Trade in air services is governed by Air Services Agreements which are the underlying legal basis for any commercial air travel between sovereign countries. They are a pre-requisite for any scheduled flight, and usually cover passenger and cargo services in a single document. Each air services treaty specifies the exact terms under which services may occur, although these terms are often updated by the agreement of both parties through memoranda of understanding.

The foundational treaty of commercial international air travel is the Convention on International Civil Aviation, agreed in Chicago in 1944. The Convention defines the Freedoms of the Air¹² – a framework for understanding air travel rights granted – and entails agreement on limited freedoms of commercial travel for all signatories. Under the Chicago Convention, all allowances for the 3rd, 4th and 5th Freedom Rights that allow scheduled commercial international travel are to be set out in bilateral agreements between Convention signatories. These bilateral agreements are treaties negotiated between the States concerned (and are therefore dependent on the two parties reaching agreement), can take many different forms from very restrictive to liberal and are usually based on the principle of reciprocity. The expected forms of bilateral Air Services Agreements are not specified, instead allowing sovereign states to agree freedoms, restrictions and designations of the Freedoms of the Air individually. Since 1944, an elaborate web of bilateral ASAs has grown

¹² A list describing the freedoms of the air is available in the Appendix.

across the world, with the ICAO database of these treaties now advertised as containing 3,600 documents¹³, with 90 distinct provisions.

Since ASAs are legally binding and often contain strict specifications, they shape the demand for and practice of the air travel they regulate. As the exact implementation of each freedom can vary in terms of frequency, capacity, designated carriers and more, understanding the likely impact of an agreement is difficult. The most prominent effort to standardise and codify these constraints is the World Trade Organisation (WTO) Quantitative Air Services Agreements Review (QUASAR).¹⁴ In its research, the WTO used in-practice importance of specific provisions to outline and prioritise six areas determining the level of air liberalisation:

- **Grant of Rights** – Since any bilateral agreement has at least some provision for 3rd and 4th Freedom rights, this measures whether any allowance has been given for 5th, 7th and 8th Freedom rights. This means that an agreement is additively more liberal if it allows travel onward to a third country, travel between both parties by a foreign carrier or cabotage (domestic flights operated by foreign carriers).
- **Capacity** – Restrictions on capacity are measured by benchmarks from pre-determined volumes through to complete free determination on the part of carriers. An intermediate position is that of ex post review by governments on capacity schedules set out initially by carriers. This is the form adopted in the first Bermuda Agreement between the US and the UK and is a common form of capacity restriction.
- **Tariffs** – Rules are often put in place for how prices for air travel are set which carriers then must follow. In particularly strict agreements, these prices are set in advance, however in others there are powers granted to the signatory states to overrule specific pricing decisions made by carriers ex post. The most liberal arrangement is one that allows entirely free pricing on the part of airlines.
- **Withholding** – An underlying concept of the Freedoms of the Air is the requirement that operating carriers be domiciled in a signatory country. However, the requirements for a carrier to be domiciled in a specific state can vary by agreement, and different levels of required control can have a substantial impact on route viability. The most restrictive provision “substantial ownership and effective control”, which requires ownership and control by a country or its nationals. Alternately, an agreement may specify a wider range of countries in which control can be vested, or simply require that an airline’s primary place of business be in a signatory nation.
- **Designation** – Many ASAs denote particular carriers, or allow a specified number of carriers, to operate services on the agreed routes. More liberal agreements do not impose these requirements or allow a greater number of designated carriers.
- **Statistical Exchange** – If the parties request statistics to be reported by the other party, it suggests they are intending to monitor the relative performance of carriers and potentially impose future restrictions. It is not, however, an important measure of current restrictions.

¹³ <https://store.icao.int/aviation-law-library-all-basic-plan-online.html>

¹⁴ https://www.wto.org/english/tratop_e/serv_e/transport_e/review2_e.htm

- **Cooperative Arrangements** – This is a smaller but nonetheless important provision that restricts or allows certain forms of cooperation between airlines, such as code-sharing, alliances or unified ticketing.

Ownership and control is a further consideration in that ownership and control (O & C) considerations often impose nationality requirements for international designation under ASAs.

An Air Services Agreement may be liberal some aspects, for example granting 5th and 7th freedoms, but restrictive in others, by imposing capacity limits or strict ownership requirements.

The consequences of a hypothetical new UK-TC ASA will depend on how it varies on all of these axes, and how a given country's priorities and circumstances interact with each restriction.

4.3 New UK-Third Country ASAs, such as UK-US

4.3.1 Background

As part of the EU, the UK's aviation relations with seven countries, including the United States and Canada, is covered through so-called EU-level comprehensive agreements. On its exit from the EU, the UK will need to replace these agreements. As well as aligning with and protecting national policy and economic interests, one of the principal objectives of negotiations of new UK-TC bilateral ASAs will be to ensure that UK carriers' rights are not diminished compared with current arrangements.

In this section, we focus on the most significant UK-TC ASA, the agreement with the US, but a similar logic can apply to other countries.

The EU-US Open Skies agreement was signed in 2007 and superseded all previous bilateral agreements between the US and EU countries. The agreement itself grants unrestricted third, fourth and fifth Freedom Rights to all EU and US carriers. While some of these rights had previously been allowed on a bilateral basis, the agreement did result in a comprehensive change to the conditions allowed on many routes.

While in theory the rights offered to EU and US carriers are identical, in practice the agreement is asymmetrical, as American States are considered part of the same territory where EU states are not. Since the agreement does not allow cabotage (operation of flights by a foreign carrier within a country), US carriers are able to operate (fifth freedom) flights between EU countries where EU countries are not allowed to operate major intra-US (eighth freedom) routes. Nonetheless, the agreement amounted to a substantial increase in liberalisation when compared for example to the previous UK-US agreement. Since the introduction of the EU-US agreement, the Trans-Atlantic route has been opened up to EU carriers operating from countries other than that of their ownership and control, low-cost carriers and has reduced the reliance on hub airports.

4.3.2 Potential Options

In the example of UK-US, a number of options exist although we understand that the first is actively being pursued by UK and US negotiators.

1. UK-US Open Skies

There has been some willingness expressed on the part of the UK and US to “roll over” the EU-US agreement but replace “European Union” with “United Kingdom”.¹⁵ This would mean similar terms to the current EU-US Open Skies deal, but considerably different consequences for both UK and US carriers.

The EU-US agreement has requirements on ownership, which the US has signalled would be even stricter for a UK-US deal. This would mean that UK carriers operating a trans-Atlantic route would need to be “substantially owned and effectively controlled” in the UK specifically, not across the EU as a whole, even if an EU-UK agreement on reciprocal ownership were in place. Airlines would therefore have to choose between concentrating ownership and operating licences in the EU to allow operation under the EU-US agreement or make substantial (and potentially costly) changes to ownership structure to consolidate ownership in the UK.

Under current plans, there is uncertainty over whether the largest three UK-based transatlantic carriers – IAG, Virgin Atlantic and Norwegian UK – will meet the ownership criteria, since their ownership is distributed across Europe.

The exact consequences of splitting the EU ownership area are unclear for both carriers and passengers. However, our assessments suggest that this could result in a reduction in trans-Atlantic air traffic.

The degree to which ownership nationality will prove to be a major stumbling block when negotiating non-EU Assails can only be known by the negotiating parties themselves. Some recent reports have sounded a more positive note regarding the negotiations for a UK-US open skies,¹⁶ the final shape of these agreements will only be known on conclusion of each set of negotiations.

The opportunity for US carriers to operate fifth freedom routes from the US, via the UK to the EU and vice versa would depend on the agreement of all of the parties involved and, in particular, the nature of the EU-UK arrangements, be they a single multilateral agreement or multiple bilateral agreements.

2. Fall-back to Bermuda II

Prior to the adoption of the EU-US agreement, air travel between the UK and US was governed by a regularly-updated UK-US agreement known as Bermuda II. The replacement for the far more liberal Bermuda Agreement, Bermuda II, was intended to place restrictions on routes, designation and traffic that would prevent American carriers from dominating the Transatlantic market.

The difficulties and restrictions of the Bermuda II framework were the topic of regular debate until its replacement by the EU-US agreement.¹⁷ For example, a report by the House of Commons Environment, Transport and Regional Affairs Select Committee in 2000 states that

¹⁵ Bloomberg. Us Offers UK Worse 'Open Skies' Deal After Brexit. 5 March 2018.

¹⁶ The Telegraph. Britain 'open skies' deal with US due this summer as negotiators agree key terms. 28 May 2018.

¹⁷ Strictly speaking, the EU-US agreement is only provisional as it has not yet been ratified by all Member States and the European Parliament. As such, Bermuda II has not been replaced and could be taken as a fall-back position

“Bermuda II is widely regarded as unsatisfactory”.¹⁸ But finds that barriers to liberalisation are the result of a US refusal to allow cabotage on domestic US routes, giving an unfair advantage to US carriers who can operate UK to Europe flights while UK carriers cannot operate American State to American State.

Returning to the Bermuda II framework would likely reignite these difficulties and discussions, with no clear benefit.

3. Maintaining multilateral agreements through the ECAA

In the event of Britain remaining in the ECAA, either through its current membership or through re-joining, it would be possible to continue membership of EU-wide multilateral agreements. Norway, despite not being a member of the EU, is signed on to the EU-US as a third-party via the ECAA. This route would, however, require the consent of the United States as a signatory to the Open Skies agreement.

4.3.3 Most likely outcome

Assuming the base scenario for this study, the UK will be required to create new third country ASAs to replace those currently accessed as a result of EU membership. In the case of the US, the UK is expected to negotiate a UK-US Open Skies agreement although the terms are, as yet, unresolved.

The most likely outcome on UK-TC air transport relations is that the UK will withdraw from all EU-level bilateral ASAs and renegotiate bilateral agreements with Third Countries.

4.3.4 Implications for airlines

Issue: New UK-Third Country ASAs, such as UK-US ASA

Most likely outcome: UK-US Open Skies agreement

	Transition period	Future
UK-registered carriers	No impact UK-US routes would operate under the existing EU-US Open Skies agreement	Potential significant impacts if 'split ownership' is not accepted*
US-registered carriers	No impact UK-US routes would operate under the existing EU-US Open Skies agreement	Minimal impact*

**Dependent on final outcome of UK-US negotiations*

The impact on carriers in an alternative 'No Deal' scenario would be the same as for the future scenario described as above except that these impacts would occur earlier as there would be no transition period.

¹⁸ <https://publications.parliament.uk/pa/cm199900/cmselect/cmenvtra/532/53202>

4.4 Brexit impact on current or future EU-TC ASAs

It could be argued that the UK's exit from the EU may have a knock-on impact to existing and future EU-TC comprehensive agreements as the degree of market access afforded to the signatories is more limited.

In the particular case of the EU-US agreement, from a legal perspective it is our understanding that there would be no change as the agreement is between the US and the 'EU' (which will continue to exist after the UK leaves). In this case, there may also be a reluctance on both sides to reopen these discussions and run the risk, both economically and politically, of failing to agree a deal.

With regard to new EU-TC agreements negotiated by the EU without the UK, in principle the EU could become less attractive. This could reduce its ability to negotiate new deals successfully – albeit it still remains a significant bloc, especially for any individual new partner country. Therefore, we might expect only limited impact.

The most likely outcome is that there will be minimal impact on EU-Third Country air transport relations.

4.5 Potential Brexit impact on wet leasing

If the UK were to continue to participate within EASA as a third country, all aviation operations would likely maintain functionality except wet leasing. Wet leasing is also subject to the Regulation (EC) 1008/2008¹⁹ which only permits EU carriers to wet lease aircraft from non-EU members for a maximum of 14 months²⁰ assuming they can prove that leasing from within the community is not viable. Lack of a specific agreement on wet leasing could be damaging for airlines whose operations are reliant on the ability to wet lease aircraft across the EU-UK border. There are many cargo airlines based in the EU who specialise in supplying aircraft, crew, maintenance and insurance (ACMI) services. These opportunities would be damaged by failure to incorporate wet leasing into the Brexit deal.

¹⁹ Regulation EC No (1008/2008) on common rules for the operation of air services in the community. September 2008

²⁰ Licence lasts seven months and can be renewed once for a further seven months

5.1 Section Overview

In this section we discuss Brexit implications for a number of operationally critical topics related to airline flight operations and safety on airlines flying to and from the UK.

- **Future UK safety and security framework** - To understand implications for airlines doing business it is essential to consider the future approach to airline safety, security and environmental regulation and certification for UK and European aviation. This also questions any future role the UK may have in the European Aviation Safety Agency (EASA).
- **Single European Sky** - We then go on to discuss the UK's potential future participation in the key elements of the Single European Sky (SES) programme.

5.2 Safety and security framework and the role of European Aviation Safety Agency

5.2.1 Background

Over many years, there has been an ongoing drive towards harmonisation of the aviation safety and security regulatory framework applied across Europe. One of the most significant steps in this process was the creation of the European Aviation Safety Agency (EASA) in 2002.

The core functions of EASA are to certify, regulate, standardise, investigate and monitor European aviation safety in the following areas:²¹

- flight crews;
- requirements for aviation organisations;
- requirements for government supervisory authorities;
- requirements for third country operators [TCO];
- airports;
- air traffic management (ATM); and
- air navigation services (ANS).

Since its inception, the increasing scope of EASA has led to a reduced role of the UK's Civil Aviation Authority (UK CAA) and approvals and certification. However, this has not reduced the UK's influence on European Aviation, rather provided an avenue for the UK to become an important voice in aviation safety and security matters across the globe. The UK CAA works closely with both the International Civil Aviation Organisation (ICAO) and EASA as well as bilaterally with countries who share large amounts of air traffic with the UK to improve global safety standards.

5.2.2 Brexit impact

When the UK ceases to be a member of EASA at the end of the transition period, EU rules in the field of civil aviation safety will no longer apply to the United Kingdom. This scenario

²¹ Royal Aeronautical Society, September 2017, Civil Aviation Regulation: What Future After Brexit?

would lead to the following legal ramifications in accordance with the EASA basic regulation:²²

- Certificates issued by EASA to holders in the UK will no longer be valid;
- Certificates issued by the competent authorities of the UK will no longer be valid outside the UK;
- Certificates issued by the legal and natural persons of the UK will no longer be valid outside the UK;
- Aircraft operators from the United Kingdom will be considered third country operators and will require authorization from EASA; and
- Aircraft registered in the UK will be required to comply with the Basic Regulation. This also applies to EU-27 operators wet leasing UK registered aircraft.

Such safety certification will no longer cover UK airlines, pilots, cabin crew, aircraft and aircraft part manufacturers, engineers, flight simulators, MRO facilities, airports, ANSPs, and medical attests for air traffic controllers. Additionally, UK made aircraft, engines, propellers, parts, and appliances would lose certification.

Without agreement on a level of equivalent recognition of UK standards, any aircraft manufactured or maintained in the UK will not be able to fly under EASA's jurisdiction, nor will any aircraft possessing a type certificate (TC) associated with a UK design organisation approval (DOA). Holders of EASA TCs in the UK would not be able to deliver products such as wings, engines and propellers to EU manufacturers, thereby affecting aircraft production in the EU. All UK aerospace items under the jurisdiction of EASA would have to be inspected and checked under the same procedures as other third countries in order to regain certification.

This worst-case scenario has been extensively cited by commentators as having the potential to lead to extensive supply chain disruption, invalidation of aircraft used across the globe and planes being grounded. For example, reports have suggested that UK airlines and airlines using British manufactured plane parts may have to pay the Federal Aviation Administration (FAA) for regulatory compliance or fly aircraft to US-approved facilities to gain certification.²³

5.2.3 Potential Options

There are two basic options for managing the UK regulatory framework in post-Brexit environment as follows:

1. UK seeks to become a Third Country member of EASA;
2. a. UK builds an independent regulatory framework, repatriating control to the UK CAA; and/ or;

²² European Commission. Notice to Stakeholders. Withdrawal of the United Kingdom and EU Aviation Safety Rules. 13 April 2018.

²³ <https://www.politicshome.com/news/uk/foreign-affairs/brexit/opinion/house-lords/92119/lord-chidgey-trade-aerospace-products-will>

2. b. Seeks bilateral arrangements on safety and cooperation with other Third Countries and, potentially, the EU.

1. Seek to become a Third Country member of EASA

The UK government has repeatedly stated an intent to continue to participate in the work of EASA. For example, the UK aviation minister, Baroness Sugg, gave a clear commitment to the UK's involvement in March 2018,²⁴ which was later confirmed by the Prime Minister in the UK government White Paper published in July 2018, alongside a commitment to accept regulation and contribute financially.²⁵

Article 66²⁶ of the EASA agreement provides a route for third country participation. Precedents for Third Country participation have already been set by Switzerland, Norway, Iceland and Lichtenstein, although these states are also members of the EU single air transport market which means that they share higher levels of economic integration than the UK will do in future.

Third Country EASA participation implies that the UK would have no EASA committee voting rights that the UK currently holds, and it would certainly have no influence over the decision making of the European Commission in approving regulation developed by EASA.

Continued participation in EASA also infers acceptance of the role of the European Union Court of Justice (EUCJ) as the arbiter in the event of a dispute regarding aviation safety and this is currently an unresolved issue in negotiations on the overall EU-UK future relationship.

Switzerland's use of Joint Committees to solve regulatory disputes under the 'indirect' jurisdiction of the EUCJ may provide the basis of a feasible solution allowing EU governance principles to be upheld without crossing the UK's stated 'red line' of not accepting the 'direct' jurisdiction of the EUCJ.²⁷ In addition, there are other dispute resolution models which the EU has used in treaties with third party states and which could be said to give the EUCJ indirect jurisdiction. One of those models arises in treaties which make provision for voluntary references to be made to the EUCJ. Examples include the EEA Agreement and the EU Moldova Association Agreement. The latter provides for the establishment of an arbitration panel which can refer certain disputes to the EUCJ. The key is that this model does not involve one party being able to refer a dispute, unilaterally, to the EUCJ. If the UK were to accept one of these models whereby the jurisdiction of the EUCJ over the UK is sufficiently indirect not to cross the EUCJ Red Line, it may be that it would accept remaining in EASA as a third country.

Whilst it may also be theoretically possible for the UK to negotiate some other route to continued participation in EASA other than that enabled by Article 66, this is considered unlikely due to the time it would take to develop an unprecedented mechanism that would be required.

EASA manages the process for granting access to European (and by default if the UK remains a member of EASA) UK airspace to third country operators (TCOs). The EC

²⁴ Department for Transport. Speech. Baroness Sugg CBE UK Aviation Minister. 8 March 2018

²⁵ HM Government. Framework for the EU-UK partnership – Transport. June 2018.

²⁶ Official Journal of the European Union. REGULATION (EC) No 216/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL. on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC. 19 March 2008.

²⁷ Sky News. Govt to stay in EU air safety body in blurring of Brexit red line. 18 April 2018.

maintains a banned operators list – the Air Safety List – through the Air Safety Committee. As a non-EU member of EASA, the UK would not be able to vote on granting access to new TCOs. As a non-EU member, the UK would not participate in the Air Safety Committee and would therefore also have no influence over adding or removing operators from the Air Safety List. In this way it would lose any influence over TCO access to UK airspace.

As a member of the EU, the UK currently shares a comprehensive Bilateral Aviation Safety Agreements (BASA) with Brazil, Canada and the United States. These agreements promote bilateral safety cooperation to support high level regulatory cooperation with a view to improving global safety standards. The agreements also ensure that approvals made by one safety agency are then reciprocated by the other agency under a system of mutual recognition.²⁸ Importantly the existing EU BASAs only cover territories within the EU, thus excluding Switzerland, Norway, Lichtenstein and Iceland despite these countries being members of EASA. Following this precedent, even if the UK becomes a Third Country member of EASA, the UK and US, Canada and Brazil will no longer be bound by obligations contained in these BASAs.

2. a. Build an independent UK regulatory framework; and/ or;

Depending on the ongoing negotiations, the UK seeking to become a Third Country member of EASA may not be a desirable or feasible outcome. The UK may consider that a new position outside the EU and the ECAA would permit it to diverge from the European aviation safety regime and exercise greater domestic control in this area.

In this option, the UK would repatriate aviation legislation to the control of the UK CAA and seek to gain a level of mutual recognition that would allow flight operations to continue as near as possible to the status quo.

In an independent regulatory framework, the UK would retain control of its own process of granting third country operators (TCOs) access to UK airspace. However, it would not be possible for the UK CAA to initiate its own Certification Management Team (CMT) without considerable investment to create the capacity to run inspections.

This is one example of the legacy capabilities left by EASA which the UK CAA would be required to re-establish - significantly challenging the current resource capacity and capability of the organisation. ADS, the trade association for UK aerospace industry, estimates it could take approximately 5-10 years for the CAA to rebuild its safety regulation capability to fill in those responsibilities which EASA currently holds.²⁹

2. b. Seek bilateral safety agreements (BASAs)

Should the UK revert to an independent regulatory framework, the market access rights granted by the future EU-UK ASA would be conditional on some form of stated position on alignment, trust or recognition of the safety and security framework of the respective parties.

This may be contained in a new Bilateral Aviation Safety Agreement (BASA) between the UK and EU, similar to the agreements the EU has with the United States, Canada and Brazil. A

²⁸ European Aviation Safety Agency. Civil Aviation Safety - Agreement EU-US. Agreement between the United States of America and the European Union on cooperation in the regulation of civil Aviation Safety. 2011.

²⁹ <https://uk.reuters.com/article/uk-britain-eu-aviation/british-aviation-regulator-steps-up-planning-for-disorderly-brexid-idUKKBN1K022K>

new EU-UK BASA may infer a level of ‘reciprocal trust’ and hence simplify certification processes but may still stop short of ‘mutual recognition’.

Agreements to confirm future cooperation on safety and security regulation, potentially captured in BASAs, are likely to be a component of future ASAs that the UK will need to develop with non-ECAA countries.

5.2.4 Most likely outcome

In the base scenario in which a comprehensive EU-UK ASA is negotiated to be in force after the transition period, we believe that the most likely outcome for the future regulatory framework is that the UK will seek to become a Third Country member of EASA and remain a management board member state but lose voting rights - adopting a similar position to Switzerland, Norway, Lichtenstein and Iceland.

This assessment is based on the following factors:

- Continued participation in EASA is consistent with the UK’s stated negotiating position;
- Precedents exist for Third Country membership, along with a mechanism for accession;
- Precedents also exist which could overcome issues relating to EUCJ jurisdiction; and
- The UK CAA would require a long transition period in order to re-establish its capability.

The most likely outcome is that the UK will become a Third Country member of EASA.

5.2.5 Implications for airlines doing business

Should the UK be successful in seeking Third Country membership, the implications for airlines doing business would be as follows:

Issue: UK future safety and security framework

Most likely outcome: UK seeks Third Country membership of EASA

	Transition period	Future
UK-registered carriers	No change to safety and security regulatory framework as EU acquis applied	No change to safety and security regulatory framework, although UK loses influence
EU-registered carriers	No change to safety and security regulatory framework	No change to safety and security regulatory framework
Carriers registered outside ECAA	UK remains bound by the obligations stemming from EU agreements, including EU-Third Country BASAs	UK develops new arrangements for recognition or alignment of regulation as part of new ASAs it develops with non-EU states, including replacing obligations of current EU-US, EU-Canada and EU-Brazil BASAs

It should be noted that the implications for airlines doing business are significantly different in the event of the alternative ‘No Deal’ scenario described in Section 2.3 of this report.

5.3 Air traffic management and the role of the Single European Sky framework

5.3.1 Background

In 2004 the European Union gained legal competences relating to air traffic management (ATM) without prejudice, however, to the sovereignty of States over their airspace and their rights and duties as signatories to the 1944 Chicago Convention. The European Union's stated objective is to reform ATM in Europe to cope with sustained air traffic growth and operations under the safest, most cost- and flight-efficient and environmentally friendly conditions through the Single European Sky (SES).

In addition to being binding on EU Member States, the provisions of the SES are mandatory for the other members of the European Common Aviation Area (ECAA), including Norway, Iceland and several countries in the Western Balkans.

The SES is built on a legislative framework comprising four basic Regulations:

- Regulation (EC) 549/2004 – the Framework Regulation
- Regulation (EC) 550/2004 – the Service Provision Regulation
- Regulation (EC) 551/2004 – the Airspace Regulation
- Regulation (EC) 552/2004 – the Interoperability Regulation.

These were amended by Regulation (EC) No 1070/2009 to improve the performance and sustainability of the European aviation system. There are two bodies through which Member States can provide input to the SES. These are:

- The Industry Consultation Body (ICB), established under Article 6 of Regulation 549/2004, to provide position papers and give technical advice to the European Commission on the implementation of SES initiatives. The ICB membership comprises representatives from the representative bodies or associations covering all ATM stakeholders: air navigation service providers; communication service providers; meteorological service providers; airspace users; manufacturing industry; airport operators; and professional staff representative bodies.
- The Single Sky Committee (SSC) established to support the European Commission in the implementation of the Single European Sky. It is composed of two representatives of each EU Member State (civil and military) and observers from third countries and Eurocontrol. The SSC provides agreement on draft Implementing Rules or Community Specifications through majority voting, with one vote per pair of Member State representatives.

To support these basic Regulations, the European Commission has developed, adopted and applied implementing legislation comprising more than 20 Implementing Rules and Community Specifications (mandatory technical standards). In addition to these technical standards, the SES framework comprises other components, including:

- Functional Airspace Blocks (FABs), which are airspace blocks established by two or more States based on operational requirements and established irrespective of State (flight information region (FIR)) boundaries with the objectives of reducing airspace and service provision fragmentation and optimising air navigation and related ancillary services. This requires cooperation, collaboration and, potentially, integration between the air navigation service providers and national aviation administrations

(termed National Supervisory Authorities (NSAs) in the SES). The UK is currently engaged in a FAB with Ireland. Participation in FABs is open to non-EU States.

- The Common Charging Scheme for air navigation services (Regulation (EU) 1191, 2010), derived from ICAO principles and consistent with Eurocontrol Central Route Charges Office (CRCO), which has the objectives of ensuring transparency and consultation on the calculation and allocation of charges for air navigation services.
- The Performance Scheme for air navigation services and network functions Regulation (EU) 691/2010 that sets targets in the areas of safety, environment, airspace capacity and cost efficiency. The cost efficiency performance area is used as the basis of the calculation of charges for the Common Charging Scheme. National and FAB performance plans must be created, consistent with European Union-wide targets, that contain performance targets, incentives and financial risk-sharing mechanisms. These plans are subject to scrutiny and approval by the European Commission and are applied on a five-year reference period cycle. The second reference period (RP2). Performance planning for the third reference period is already well under way. Monitoring of performance at national and FAB level is undertaken by the NSAs and reported to the European Commission on an annual basis. The European Commission is assisted in the operational of the Performance Scheme by the Performance Review Body (PRB).
- The Network Manager undertakes a set of network related tasks defined in Regulation (EU) 677/2011, including management of the route network design, operation of air traffic flow management, centralised function for frequency allocation, secondary surveillance radar (SSR) code allocation and supporting the European Aviation Crisis Coordination Cell when needed. Prior to these activities being subsumed into the SES, they were performed by Eurocontrol, which has been designated as the Network Manager until the end of 2019 through the Commission Decision of 7 July 2011 (C(2011) 4130 final). Governance of the Network Manager is organised through a Network Management Board comprising representatives of airlines, airports, the military and air navigation service providers. The Network Manager serves a wider constituency than the EU Member States, covering all of Eurocontrol's 41 Member States as well as others with which it has bilateral agreements.

SESAR (Single European Sky ATM Research) is the technological pillar of the SES. The overall concept is defined in the European ATM Master Plan. There are two main institutional components to SESAR:

- The SESAR Joint Undertaking (JU) established under Regulation (EC) No 219/2007 with the objective to “... *ensure the modernisation of the European air traffic management system by coordinating and concentrating all relevant research and development efforts in the Community. It shall be responsible for the execution of the ATM Master Plan...*”. The SESAR JU is set up as a public private partnership with 19 Members, including the European Commission and Eurocontrol. The UK is represented through membership by NATS as well as participation by Heathrow Airport in the SEAC Consortium. As well as funding by Members, the SESAR JU from EU the Horizon 2020 Research and Innovation Programme, with €1.6 billion allocated between 2016 and 2024.

- The SESAR Deployment Manager (DM) defined in Article 9 of Commission Regulation (EU) No 409/2013. In simple terms, the role of the SESAR DM is to synchronise and coordinate implementation of SESAR technological developments against the SESAR Deployment Programme. The SESAR DM role is currently being fulfilled by the SESAR Deployment Alliance under mandate from the European Commission to the end of 2020. The SESAR Deployment Alliance is a not-for-profit International Association set up under Belgian law, comprising airlines, airports and air navigation service providers. UK representation includes British Airways and NATS and several airports. As well as funding from the SESAR Deployment Partners, part-funding for SESAR deployment is provided by the Connecting Europe Facility (CEF) administered by the Innovation and Networks Executive Agency (INEA). Note that INEA/CEF is also a source of co-funding for common projects outside of the scope of the SESAR Deployment Manager.

The UK government's Brexit white paper states that UK will seek close cooperation on air traffic management to maintain interoperability, and benefit consumers, airlines and the environment, through reduced journey times, lower costs and lower emissions.³⁰

5.3.2 *Brexit impact*

In the scenario being considered, at the end of the transition period the UK will remain a Eurocontrol Member State with a seat of the Eurocontrol Provisional Council and could occupy a position similar to Turkey, for example. ICAO rights and obligations ensuing from the UK's engagement in the Chicago Convention will remain in force and be applied. The UK would lose its direct input to the ongoing development of the SES as it would no longer have representatives at the Single Sky Committee. However, some influence would remain through the industry bodies such as CANSO (the Civil Air Navigation Services Organisation), IATA and A4E, that are part of the Industry Consultation Body.

In terms of standardisation and the development of Community Specifications, the UK would no longer be able to exert influence through the Single Sky Committee. However, more indirect influence will still be possible through the Industry Consultation Body, Eurocontrol mechanisms and UK participation in standardisation bodies such as Eurocae and ETSI. Even though outside of the EU, the UK remains in the ICAO European Region, in the European Civil Aviation Conference (ECAC) and a member of Eurocontrol. In addition, the UK ATM industry has strategic partnerships with industry from within the EU and will be interested in accessing the EU ATM systems and equipment market. It is almost inconceivable, therefore, that the UK will develop bespoke ATM standards post-Brexit.

The most likely conclusion post-transition period is that the UK will continue to apply technical and interoperability standards on a voluntary basis.

The UK-Ireland FAB has been operating since 2008 and has achieved most of its objectives, including cost reduction and increasing airspace efficiency through implementation of systems and processes. The FAB did not change any sovereign airspace arrangements nor safety, regulatory or executive accountabilities, so the UK could choose to discontinue its participation in the FAB fairly seamlessly. If this were the case, all of the critical cooperation activities with Ireland could be continued using standard ICAO and bilateral mechanisms,

³⁰ HM Government. The Future Relationship between the United Kingdom and the European Union. 12 July 2018.

e.g. through delegation of airspace and letters of agreement. Alternatively, the UK could choose to remain in the FAB arrangement though the provision for the participation of third countries, although this might introduce conflict on the supremacy of EU or UK legislation. Operationally there is likely to be any difference between the two approaches. This decision whether to dissolve the FAB will be influenced by the comparative business cases of each option.

The most likely conclusion is that the UK-Ireland FAB will cease at the end of the transition period but that there will be no measurable operational impact.

The UK will remain part of the Eurocontrol CRO system and develop and apply charges according to ICAO principles and the existing Eurocontrol processes and formulae. In terms of the Performance Scheme, the UK has one of the longest histories of applying independent economic regulation to air navigation services, first established when NATS was privatised. RP2 of the SES Performance Scheme will be applied until its termination in 2019. After this, enabled by provisions within the UK Transport Act 2000 the Civil Aviation Authority will continue to apply a UK Performance Scheme to NATS en-route and London terminal area operations. This UK Performance Scheme, which is currently under development compliant with the requirements for RP3 of the SES Performance Scheme, is likely to provide greater flexibility than the current scheme for in-term review and revision to react to changing circumstances. Airport air navigation services, with the exception of the London terminal area, are not subject to economic regulation as they have been declared contestable. This situation is most likely to continue. In itself, Brexit is not expected to impact on how much airlines are charged NATS services and the ICAO principles, e.g. of non-discrimination, cost-relatedness and equitability, will still apply.

The most likely conclusion is that the Common Charging Scheme will continue post-Brexit and that a Performance Scheme very similar to the SES approach will be applied.

The UK will remain a member of the Network Manager until the end of the transition period which also coincides with the end of the period of designation of Eurocontrol as the Network Manager. It is possible that the nature of the Network Manager will change after the current designation ends: for example, the Industry Consultation Body of the SES is calling for the Network Manager to be established as separate legal entity and it is understood that a new draft Network Functions Implementing Rule is being drafted. That Implementing Rule allows for the participation of non-EU third countries in the Network Manager and allows two seats for those third countries on a rotating basis on the Network Manager Management Board (NMMB). These two seats have already been allocated so that the UK would not have a position on the NMMB immediately after Brexit and because of the rotating nature of the third-country participation would only have periodic, not permanent, presence on the NMMB. It is most likely that the UK will remain part of the Network Manager in the long-term and that, operationally, there will be little change from the current situation. However, the UK's influence in the Network Manager will have been diminished and there may be difficult issues to address on governance.

The most likely conclusion is that the UK will remain a party as a third country to Network Management and that operationally there will be little change to the current situation.

The UK, principally through NATS expects to retain its position within both the SESAR JU and SESAR DM as at present as both arrangements allow for third country participation with work continuing as currently planned. However, NATS high-profile and influential position with both elements of SESAR will likely be diminished. This means that SESAR research, innovation and deployment activities will continue in the UK. If the Withdrawal Agreement is concluded as currently envisaged, UK will retain access to Multi-Annual Financial Framework 2014-2020 financed programmes to 2020 or to project closure. This includes Horizon 2020 and the CEF. Subsequently, funding for the UK looks unlikely to be available from these sources and therefore UK participation will have to be self-funded either from the State or from the participating entity. In the case of NATS, where funding would be recovered through user charges subject to the form of economic regulation and mandatory consultation mechanisms in place, execution of projects would be subject to business case approval through the internal governance process rather than, in some cases, being mandatory due to SESAR obligations.

The most likely outcome is that the UK, principally through NATS, will continue to participate in SESAR, both in research and innovation, and deployment albeit with reduced influence. In the likely case that EU co-funding for is not available for UK projects, NATS will rely on either or both of State funding or cost recovery via user charges for project funding.

5.3.3 Implications for airlines doing business

The implications of Brexit on the operational aspects of air traffic management are summarised in the following table.

	Transition period	Future
UK-registered carriers	No change	Loss of UK influence in the direction taken by the SES and SESAR. Potential impact on user charges if self-funding of SESAR is required although this would be subject to positive cost benefit analysis, economic regulation and consultation
EU-registered carriers	No change	Potential impact on user charges if self-funding of SESAR is required although this would be subject to positive cost benefit analysis, economic regulation and consultation
Carriers registered outside ECAA	No change	Potential impact on user charges if self-funding of SESAR is required although this would be subject to positive cost benefit analysis, economic regulation and consultation

In the case of a no-deal Brexit, it is not expected that there would be any substantial change to the above observations except that the impacts would be brought forward from the end of the transition to the end of March 2019, when Brexit occurs. In the very worst-case scenario, UK airspace would remain open and access to the North Atlantic would not be prejudiced.

6 BORDER MANAGEMENT

6.1 Section Overview

In this section we discuss the impact of future UK border management in a post Brexit environment on airlines doing business flying to and from the UK.

The four freedoms of movement in Goods, Services, Capital and People within the EU and the European Economic Area (EEA), together with harmonised regulation in traded goods, currently enables the UK to share a soft border with all countries within the EEA. This allows airlines serving EU-UK routes to benefit from simplified border processes for both passengers and freight.

Leaving the European Union, according to the campaign slogans, would give the United Kingdom control of its borders again but this is potentially in conflict with the objective of maintaining frictionless trade.

In this section we discuss the inevitable changes to both immigration and customs processes at the border in terms of:

1. **Passenger facilitation** – including:

- border management;
- visa requirements; and
- passenger data exchange.

2. **Goods and freight movement** – including:

- Trade, Tariffs and Customs; and specifically, their implications on:
- movement of aircraft parts.

It should be noted that border management aspects are some of the most contentious areas of discussion in the current EU-UK negotiations and there remains great uncertainty about solutions which could address the divergence of negotiating positions. These sections of this study therefore should be considered in the context of a dynamic and rapidly changing environment.

6.2 Passenger facilitation

6.2.1 *Border processes*

6.2.1.1 Background

The continuation of the status quo in relation to passenger border processes in UK airports would require the United Kingdom to remain within the customs union and the single market which the UK government has ruled out. It therefore looks like an inevitability that the EU-UK border will have operational differences and thus implications for airlines. Regulatory divergence and changing citizen rights are inevitabilities post-Brexit which make tighter borders unavoidable, which is likely to add further delays at borders specifically whilst awaiting passport controls.

The regulatory shift which will occur once the UK is outside of the EEA will require a wider, more comprehensive border management system to deal with the 85 million passengers³¹ that travel between the UK and the EU annually.

6.2.1.2 Brexit impact

Passengers spending longer at passport control could have negative commercial implications for airlines operating into the UK as a poor passenger experience could stifle demand. Furthermore, additional delays will inevitably increase the likelihood of logistical mishaps (e.g. missed flight connections). Such factors will cause reputational damage for the industry.

It is currently unclear whether additional checks will also be reciprocated for UK nationals entering the EU though this is likely. Given the relative volumes involved, the effect of any additional checks on UK passengers at EU airports on the smooth running of the border will be more limited than checks on EU passengers at UK airports.

Whilst immigration queuing may be seen as a government or airport facilitation issue, in certain circumstances it can have the ability to knock-on to efficient airline operations, as previously mentioned.

6.2.1.3 Potential Options

Two potential options exist for management of passport controls at UK airports:

1. All non-UK passengers are processed as non-EEA passengers are today
2. EEA nationals use a so-called 'Third lane' with a level of control somewhere between that applied to UK nationals and non-EEA nationals. This is more likely a soft Brexit scenario.

1. All non-UK passengers are processed as non-EEA passengers are today

All UK ports are assessed on queuing performance against national targets, which are measured at specific points throughout the day. These service level agreements include a target that 95% of EEA passengers are cleared within 25 minutes. Non-EEA nationals are managed through a separate channel and are often processed via manual processes delivered by UK Border Force officers. The equivalent queuing SLA for these passengers has a target of 95% of non-EEA passengers being cleared within 45 minutes.

EEA nationals, along with UK nationals, arriving in the UK are currently processed through a dedicated channel at the UK border in airports and, unless travelling using identity cards or with children, can use e-Gates as part of this process. In UK airports, automation has been instrumental in achieving control of the border, balanced with reasonable passenger experience for EEA passengers, all delivered within a finite resource budget.

For international travellers to whom e-Gates are not available, the experience has been poor with very long queues experienced at major airports. Against the background of constrained Border Force budgets and rising numbers of travellers, the amount of time non-EEA passengers are spending at passport control has been increasing year on year at Heathrow

³¹ CAA traffic statistics for UK airports, 2017

since 2012.³² For example, in summer 2018 at Heathrow non-EEA immigration queue lengths reached 2.5 hours and the target of 45 minutes was only met once in July 2018.³³

Applying the current non-EEA processes to EEA nationals in future has the potential to degrade their passenger experience as the service standard for clearance would be extended and large numbers of passengers would be added to the non-EEA system, which is already under strain.

This option will undoubtedly generate a requirement for greater resource and very likely increase non-EEA queue times at UK airports even further.

2. ‘Third lane’ option

One option open to UK airports to limit the detrimental effects of stricter border control is creating a ‘third lane’ for EEA nationals where immigration controls are somewhere in between those given to UK nationals and those given to non-EEA nationals. Whilst supporters of this option suggest that this will safeguard passenger experience for EEA nationals, UK Home Office officials have warned that this would in fact increase the strain on resources and waiting times.

6.2.1.4 Most likely option

As this study concludes, we continue to await publication of the UK Immigration Bill 2018. This could have been expected to give guidance on such matters in spring 2018 but its issue has now been deferred to late 2018/ early 2019 With the UK government yet to fully spell out its plan for border management post Brexit and the requirements for arriving EEA nationals entering the UK, it is difficult to assess the most likely option.

However, assuming that the UK will want to ensure smooth running of its ports it could be expected that a ‘Third lane’ or another hybrid arrangement could be developed during the Brexit transition period.

The most likely outcome is that UK borders will be controlled using a third-lane option for EEA travellers.

6.2.1.5 Implications for airlines

Issue: Border processes at UK airports

Most likely outcome: Third lane or hybrid scheme

	Transition period	Future
UK-registered carriers	No change to UK border processes for passengers	UK or EU registered carriers are likely to carry the highest volumes of EEA passengers who could be subject to more time-consuming processes at the UK border passport controls
EU-registered carriers	No change to UK border processes for passengers	

³² The Financial Times. Airport queues highlight UK’s border problem post Brexit. 3 August 2018.

³³ The Independent, 13 August 2018

	Transition period	Future
Carriers registered outside ECAA	No change to UK border processes for passengers	Carriers registered outside Europe see least change at the UK border as they carry a high proportion of non-EEA passengers for whom processes will remain unchanged

6.2.2 UK visa scheme/ European Travel and Information System (ETIAS)

6.2.2.1 Background

At the moment, as part of the EU but outside the Schengen area, all UK citizens with valid passports can travel to any other member state by land or sea by simply producing their passport at the border to continental Europe and via air by providing basic information before flying as well as showing passports on arrival. The same goes for citizens of 61 countries who are able to travel to the Schengen area with only their passport, there is however a limit on how long they are able to stay, typically 90 days within any 180-day period, whereas UK citizens are currently able to stay for unlimited periods. All other citizens are required to apply for a Schengen visa.

The ETIAS is a European travel authorisation system proposed by the EC to be introduced in 2020 irrespective of Brexit. The system will have a similar functionality to the United States ESTA visa waiver system with the aim of better controlling immigration to Europe in the face of emerging terrorist threats and improving border operations. ETIAS will apply to all citizens of the 61 countries currently not requiring a visa to visit the EU.

6.2.2.2 Brexit impact

In a worst-case scenario, Brexit could result in the requirement for UK citizens to apply for a visa to visit the EU and vice versa for EU citizens to visit the UK. However, this seems unlikely. The UK government's Brexit White Paper confirmed that despite putting an end to free movement, it will '*allow EU citizens to travel freely, without a Visa for tourism and temporary business activity*'.³⁴ On the other side, current border management regulation is closely aligned, and the UK meets the criteria for visa-free access to Schengen.

It is therefore probable that during the Brexit negotiations, an agreement is put in place to ensure free travel in both directions between the UK and EU. The UK will most likely be added to the ETIAS eligible list and UK citizens will be required to have a valid ETIAS upon entry to the Schengen area. Commission vice president, Frans Timmermans claimed the system '*would certainly apply to UK nationals after Brexit*'.³⁵

Discussion on applying the ETIAS scheme to UK nationals has raised the question of a reciprocal UK travel authorisation system whose revenues could be used to fund the inevitable increase in demand for border control resources. If the EU did incorporate the UK into ETIAS then it is very likely that the UK would take similar action.

³⁴ HM Government. The Future Relationship between the United Kingdom and the European Union. (p33). 12 July 2018.

³⁵ Migration Watch UK. 28 December 2017. Post Brexit Travel Between the EU

The implications of introducing this system for airlines would be minimal and limited only to an extra component to the document-checking process at check-in at boarding to ensure that the passenger is authorised to travel, in the same way that visa checks are performed now. There would be a similar requirement at the immigration checks at the border. The impact on demand of the cost to the traveller of an ETIAS waiver (~€7) is not yet clear.

6.2.2.3 Likely outcome

The future visa requirements on entry to the UK or EU remain unclear and will ultimately be decided in negotiations on the future relationship between UK and EU. However, it is highly likely that arrangements will be reciprocal with the balance of probabilities that UK citizens visiting the EU will need to follow the ETIAS process, when it is introduced, and that the UK will apply a similar process for EU citizens visiting the UK. In the transition period, visa free travel on passports and national identity cards would continue.

The most likely outcome is that reciprocal arrangements will be put in place by both the EU and UK for the application of a travel authorisation scheme.

6.2.2.4 Implications for airlines

Issue: Travel authorisation/visas

Most likely outcome: ETIAS/ UK travel authorisation schemes

	Transition period	Future
UK-registered carriers	No change to current arrangements	Minimal passenger facilitation impacts
EU-registered carriers	No change to current arrangements	Minimal passenger facilitation impacts
Carriers registered outside ECAA	No change to current arrangements	Minimal passenger facilitation impacts

In the case of a fractious no-deal scenario, the worst-case scenario of reciprocal visa requirements for both EU and UK citizens might be applied immediately on Brexit as there would be no transition period. As with the travel authorisation scheme, this would require airlines to perform checks at the check-in and/or boarding points of the passenger facilitation process.

6.2.3 Passenger Data Exchange

6.2.3.1 Background

Collection of passenger data is a tool used by national authorities to combat cross-border criminal activities such as terrorism and drug trafficking. Data collected by airlines comes in two forms:

- Advance Passenger Information (API) relates to biographical data, such as name, date of birth and nationality, this information can be provided electronically to government authorities in the State of arrival, of departure or of transit, and it allows those states to pre-identify who is flying into or out of their territory.

- Passenger Name Record (PNR) which refers to the information submitted by passengers when booking flights and is collected by airlines for business purposes. PNR is used to spot trends and identify suspicious travel trends for customs, law enforcement and security.

Council Directive 2004/82/EC³⁶ regulates the transfer of API data by air carriers to the competent national authorities for the purpose of improving border controls and combating illegal immigration. The UK has implemented this directive in national laws governing collection of API data from airlines.

Directive (EU) 2016/681³⁷ on the use of PNR data sets out common EU-wide regulations for the collection and sharing of passenger data, primarily for extra-EU flights, regulating the use of passenger name record (PNR) data for the prevention, detection, investigation and prosecution of terrorist offences and serious crime. The key provisions are:

- air carriers must transfer PNR data to Member States in which they are operational;
- Member States must adopt a list of ‘competent’ authorities entitled to request or receive PNR data on a case by case basis which can include other Member States, Europol and Third Countries; and
- a number of data protection safeguards.

This Directive was implemented in UK law through the UK’s Passenger Name Record Data and Miscellaneous Amendments Regulations 2018.

6.2.3.2 Brexit impact

Passengers travelling on flights to and from the UK are required to fill out an API document because it is not a member of the Schengen area. Therefore, existing formalities for API collection will be unaffected by Brexit. Passengers are not required to fill in API forms for intra-Schengen flights although concern has been raised in the European parliament that national governments are requesting API data.

In the case of API procedures, the most likely outcome is that the status quo will prevail in a post-Brexit environment.

With the UK becoming a ‘third country’ once it leaves the EU, all flights between UK and EU Member states become extra-EU under the terms of the Directive. For the UK, the Directive will no longer be applicable when its status changes. Post-Brexit, legal amendments to ensure a secure and robust mechanism to enable the lawful transfer of personal data across borders will be necessary.

British authorities will therefore require a Third Country PNR agreement with the EU in order to collect data on flights entering the UK from the EU. For data to be transferred to a third country, Directive 95/46/EC³⁸ requires that such a country ‘ensures an adequate level of protection’. Despite being outside the EU the UK would meet this standard however, data would only be granted with a bilateral arrangement in place. The EU’s primary concern in such agreements is data privacy and protection; future divergence by the UK from EU rules

³⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004L0082&from=EN>

³⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016L0681&from=EN>

³⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31995L0046&from=EN>

could impact on the success of a PNR agreement. Like all future agreements, the outcome is dependent on the whole Brexit withdrawal bill.

The EU currently has three such agreements for sharing PNR with non-EU states – Australia, Canada and the United States. Such agreements oblige airline companies to transfer PNR data to authorities relating to all passengers flying to, from or through those countries. All existing PNR transfers to third countries are hence governed by bilateral agreements and have been negotiated on a case-by-case basis.

The UK government has stated that it will seek to negotiate a similar deal and identified this as ‘critical for developing lines of enquiry, identifying suspects and informing appropriate action’. It may be possible that the UK would request a less restrictive arrangement as an agreement based on existing third country models would, according to the UK government, ‘represent a significant diminution in the UK’s security capacity’.³⁹

The European Court of Justice (EUCJ) ruled in July 2017 that the information being stored under the EU-Canada PNR agreement goes ‘beyond what is necessary and contradicts the fundamental EU right to data protection. EU agreements with the US and Australia will also be reviewed as a result of this ruling. A requirement of the EUCJ is that there is solid justification for sharing personal data with non-EU members, it will therefore prove difficult for the EU to share data with the UK even if it secures a cooperative agreement like Canada, the US and Australia.

Nevertheless, the EU commission stated in 2015 that it will consider a model in which third countries are able to receive PNR data from EU airlines in which the key requirement would be satisfactory data protection standards. It therefore remains unclear what the EU’s future position would be regarding a deal permitting PNR transfers from EU airlines to UK authorities. The UK would likely take an equivalent view to the EU such that any future agreement would be reciprocal.

The most likely option is that the EU and UK will negotiate a reciprocal EU-UK Third Country agreement to allow the current practices of PNR data provision and sharing to continue as near to the status quo as possible.

The UK is a member of the so-called ‘Five Eyes’ community of countries who are parties to the multilateral UK-US Agreement, (United States, UK, Canada, Australia and New Zealand) and this has facilitated cooperation on security and cross border issues between these states. As such, it is likely that UK authorities will wish to continue to build UK-Third Country PNR agreements (in addition to an EU-UK agreement) in a post-Brexit environment.

The most likely outcome is that UK-Third Country PNR agreements will either continue as they do today or be developed further to replace the Third Country agreements that the UK is currently party to as an EU member state.

6.2.3.3 Implications for airlines

As airlines are the ultimate source of the data, they can risk legal challenge, for example regarding breach of data privacy regulation if they do not comply with the rules correctly – either by withholding requested data where there is an agreement or providing data where

³⁹ <https://publications.parliament.uk/pa/cm201719/cmselect/cmhaff/1356/135603.htm>

there is not. The current provisions of the EU Directive describe incentives which are ‘dissuasive’, including fines.

Until there is clarity on the terms of future EU-UK and UK-Third Country PNR agreements, airlines flying to and from the UK risk being ‘caught in the middle ground’ when dealing with requests from authorities for PNR information.

The implications for airlines are summarised in the following table although the exact timing of phases is to be determined by ongoing negotiations.

Issue: PNR data exchange

Most likely outcome: API unaffected, new EU-UK PNR agreement, new UK-TC agreements

	Transition period	Future
UK-registered carriers	UK law implementing Directive (EU) 2016/681 remains in place although this must be replaced to reflect the UK’s future status as a Third Country	A new EU-UK PNR data agreement applies
EU-registered carriers	Directive (EU) 2016/681 remains in place although its application to the UK would be based on Third Country status rather than as a Member State	A new EU-UK PNR data agreement applies
Carriers registered outside ECAA	EU-Third Country PNR agreements (US, Canada, Australia) remain in place although these agreements cease to apply to the flights to and from the UK	New UK-Third Country PNR data agreements apply (replacing the UK’s obligations under the current EU-TC agreements)

In the extreme case of no deal with no PNR agreement, the implications are that airlines could be in breach of data confidentiality constraints and risk fines if they continued to exchange data in either direction – EU to UK or UK to EU – as they do currently. The practical impact of this is that no PNR data would be exchanged until appropriate agreements were reached.

6.3 Movement of Goods

6.3.1 Background

As an EU member, the UK currently has access to the EU as a single market – managed as one territory without any internal borders or other regulatory obstacles to the free movement of goods and services with a few exceptions (e.g. excise goods, control of prohibitions and restrictions at EU internal borders). This provides tariff free trade between members and is predicated on common rules and regulations and freedom of movement of goods and people.

A key foundation of the single market and Customs Union is that goods can quickly and efficiently cross borders with minimal checks.

Air freight is crucial for a healthy economy but also a healthy aviation market – many routes are unprofitable when only carrying passengers, many routes would become commercially unviable if transporting freight is no longer commercially viable. The competitiveness of air freight is heavily reliant on the speed and predictability at which goods are moved across borders.

Efficient border processes are not only a concern for passengers and cargo but also the production line. Airline manufacturers and MRO operations across the EU rely on the freedom and speed of trade across EU borders. The ability to order and receive spare aircraft parts from European partners quickly thanks to the single market is crucial to airline manufacture and maintenance operations. The Airbus A350, for instance, has about four million parts, produced by 1,500 companies from 30 countries, trade barriers would therefore pose a serious threat to production lines.

As a member of the EU customs union, the UK shares a common external tariff with EU partners on goods imported from outside the EU, under regulation (EEC) No 2658/87⁴⁰ with the aim of diverting trade inside the union. The general rule for UK borders with regards to charging tariffs is:

- imported from another EU country – no tariff charged; or
- imported from outside the EU – charge tariff based on type and origin of the good.

6.3.2 Brexit impact

The future customs arrangement between the UK and the EU is a topic that is right at the heart of the current negotiations. It is also intrinsically linked to the desire to avoid a hard border in Northern Ireland. The government's official position outlined in the White Paper is that the country is leaving the Customs Union.

The UK have recently adopted a proposal for a Facilitated Customs Agreement (FCA) with the EU. As if in a combined customs territory with the EU, the UK would apply the EU's tariffs and trade policy for goods intended for the EU. The UK would also apply its own tariffs and trade policy for goods intended for consumption in the UK.⁴¹ Firms importing goods destined for the UK only market can apply for the UK tariff to be applied, while firms importing goods ultimately destined for the EU market will pay the EU levy. The system would be facilitated by technological declaration processes like the Customs Declaration System (CDS) and Authorised Economic Operator programmes.

However, this proposal has received strong opposition from the EU and is unlikely to form a final solution.

The likely outcome on Customs is extremely unclear at this time and negotiations and the terms of any deal should be monitored closely to interpret the implications for airlines.

⁴⁰ Regulation EEC No (2658/87). The tariff and statistical nomenclature and the customs tariff.

⁴¹ HM Government. The Future Relationship between the United Kingdom and the European Union. 12 July 2018.

On trade, the UK government has also stated that it will seek to negotiate a comprehensive Free Trade Arrangement (FTA) with the EU-27 which will maintain the current free trade that the UK enjoys with the EU. The EU have also committed to keeping tariffs at zero as well as no quantitative restrictions (quotas) through a comprehensive FTA.⁴²

Goods traded between countries without an FTA are subject to WTO rules. Under the principle of Most Favoured Nation (MFN), the terms of trade between the UK and the EU would be no worse than the terms between the EU and other nations without an FTA. Nevertheless, WTO rules are much less favourable than the status quo.

The existence of tariffs on imported goods to and from the UK is entirely dependent on the UK's post Brexit trading relationships. UK airline representative organisations such as Airlines UK have issued their support for maintaining tariff free trade between the UK and the EU to limit disruption.⁴³

A comprehensive free trade agreement and the WTO would alleviate tariffs although trade could still be slowed by diverging regulation and therefore extra border checks. The extent of these checks is dependent on the customs arrangement that the UK manages to secure, ADS estimate that delays could add costs of £1.5bn to the UK aerospace industry.⁴⁴ The proposed FCA would aim to not increase checks, however, no external customs union border enjoys the same seamless system therefore, disruption to freight movement looks inevitable but could be limited to a negligible amount if administrative delays and regulatory divergence are kept to a minimum. The UK has committed to a common rulebook for manufactured goods regulation in the hope of limiting increased checks, but this has yet to be accepted by Brussels.

Whilst the final outcome of the Brexit negotiations on EU/UK borders is currently unclear, the likelihood is that the current free movement of goods principle will be restricted and more border checks either at airports or inland will need to be undertaken. This implies a general slowdown in current supply chain timeframes and also raises questions regarding existing sufficient airport and non-airport infrastructure for additional examinations and warehousing.

In addition, the potential removal of current specific trade facilitation tools such as the transit simplifications applicable to movements between UK and EU Member States would increase administrative burdens and result in additional significant costs, not least because of possible requirements for new financial guarantees for any goods moved between UK and EU Member States.

The likely outcome of the EU-UK trade status is also extremely unclear although it does seem likely that additional (non-tariff) border checks will be required, regardless of the final trade agreement.

⁴² European Council. Article 50 Guidelines. 23 March 2018.

⁴³ Airlines UK. Written evidence to the Transport Select Committee on the potential effects of Brexit on UK freight operations. June 2018.

⁴⁴ House of Commons Business, Energy and Industrial Strategy Committee. The impact of Brexit on the aerospace sector. 14 March 2018.

The UK's future Customs and Trade arrangements with the EU and the rest of the world will put pressure on the infrastructure at airports and the back-office systems used to support these processes and arrangements.

In August 2018, HM Revenue and Customs (HMRC), the UK governmental body responsible for the collection of duties, taxes and cross-border VAT, began to phase in a new system for customs declarations called CDS. This will replace the existing Customs Handling of Import and Export Freight (CHIEF) system, with all declarations aimed to be carried out under CDS by early 2019. CHIEF will run in parallel with CDS in the first period of implementation to aid with teething problems. The new CDS technology is described as being more flexible, scalable, efficient and cost effective than the legacy CHIEF technology which has been in operation for nearly 25 years.

The UK collects around £34 billion annually from customs and excise duties and value added tax (VAT) on transactions at the border.⁴⁵ Traders and carriers, including airlines will be affected by the ease at which they can make declarations to UK border force in order to facilitate speedy operations.

Despite being designed before the UK's vote to leave the European Union, the CDS is described by HMRC as being able to withstand the potentially exponential rise in customs declarations. An increase of around 200 million declarations is predicted by HMRC after 29 March, based on current trade levels and subject to the future customs arrangement.⁴⁶ The previous system, CHIEF, was able to process 60 million declarations a year whereas CDS could be required to process up to 255 million per year post Brexit.⁴⁷

The target for full implementation of CDS is January 2019 which should allow it to be in operation well before the end of a Transition period in the base scenario. However, this timing gives very little room for leeway in the event of no deal scenario.⁴⁸ HMRC's contingency plan for CDS not being functional in time for Brexit is the continuation of CHIEF operations, which would require time and investment to make the necessary changes.

Even if the timetable is met there is no guarantee that CDS will be able to cope with such an increase in required processing. Core parts of the system work in other countries but have not yet been used at the volume and intensity the UK might need. For example, the customs declaration management component has been tested to cope with 180 million declarations a year compared with the 255 million which may be needed.⁴⁹ Until it is shown to work at this level and with the UK's specific systems, there is a risk that this new component may not meet the UK's requirements.

The likely outcome is that the new CDS system should be in place by the end of the transition period but will require further testing and development to ensure that it can meet the demand likely to be placed on it.

Extra border checks will have considerable consequences for airlines who are reliant on seamless supply of spare aircraft parts under the current single market framework to support their maintenance processes. UK aerospace supply chains are heavily entwined with other

⁴⁵ <https://www.nao.org.uk/report/the-customs-declaration-service-a-progress-update/>

⁴⁶ National Audit Office. The Customs Declarations Service. 13 July 2017.

⁴⁷ Computer Weekly. HMRC puts numerous IT projects on hold to focus on Brexit. 6 June 2018.

⁴⁸ National Audit Office. The Customs Declarations Service. 13 July 2017.

⁴⁹ National Audit Office. The Customs Declarations Service. 13 July 2017.

EU countries and the cross-border movement of goods is high. Just-in-time manufacturing is extensively used in maintenance (MRO operations) and production. The competitiveness of airlines in the UK and airlines in the EU who rely on imports from the UK would be damaged by administration and bureaucracy at borders.

The UK is a party in its own right to the WTO Agreement on Trade in Civil Aircraft, as is the EU. It is thought likely that the UK will be able to retain its membership after Brexit without taking further action. This agreement covers engine parts and components as well as simulator parts and components.

The UK's ongoing participation in this WTO agreement would remove the threat of tariffs on the supply chain of UK airlines and also EU airlines importing from the UK.⁵⁰ The agreement excludes raw materials which are important to the supply chain of airlines however the EU's Inward Processing Regime (IPR) removes duties paid on materials used in aerospace manufacturing – a future UK customs arrangement could include this which would protect production lines.

In the base scenario, assuming a Brexit deal is reached, the most likely outcome is that terms of trade in aircraft parts will be unaffected. However, the time taken at the border for 'non-tariff' checks would still be of concern to airlines and MRO operations as they have the potential to require significant re-planning of their logistics.

The effects on airline supply chains are of course dependent on the provisions outlined for goods trade within the withdrawal agreement. In the event of no deal by March, aircraft parts would be traded on WTO rules leading to potentially slower operations. However, as previously mentioned in section (3.2.3.2) the WTO agreement would maintain tariff free trade in aircraft parts.

6.3.3 Implications for airlines

The future trade and customs arrangements between the EU-UK and UK-rest of the world remain extremely unclear. However, these will undoubtedly have implications for air freight, MRO and aerospace manufacturing and airport infrastructure and back office systems.

The implications as far as they can be seen at this time are summarised in the following table:

⁵⁰ <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/business-energy-and-industrial-strategy-committee/leaving-the-eu-implications-for-the-aerospace-industry/written/72152.pdf>

Issue: Movement of goods by air

Most likely outcome: Significant uncertainty on future trade and customs arrangements although differences to the status quo are to be expected

	Transition period	Future
UK-registered carriers	Potential period of disrupted operations as infrastructure and systems are developed to facilitate the new customs and border processes	New Free Trade Agreement between EU-UK applies, potentially requiring different customs and border processes for goods transported by air Additional border checks for goods (including aircraft parts) still required, even if tariffs do not apply
EU-registered carriers		
Carriers registered outside ECAA	Limited changes from the status quo	Limited changes from the status quo

7 AVIATION SECURITY

Section Overview

In this section we present a discussion on the implications of Brexit on aviation security. This section should however be read in conjunction with Section 5.2.

7.1 Background

Since 2002 the European Commission has established common rules in the field of civil aviation security aimed at protecting persons and goods from unlawful interference with civil aircraft.

Regulation (EC) No 300/2008⁵¹ lays down common rules and basic standards on aviation security.

The common basic standards comprise:

- screening of passengers, cabin baggage and hold baggage;
- airport security (access control, surveillance);
- aircraft security checks and searches;
- screening of cargo and mail;
- screening of airport supplies; and
- staff recruitment and training.

Operators must:

- define and implement an airport security programme; and
- define and implement an air carrier's security programme.

The common rules in the field of civil aviation security apply also to Norway, Iceland, Liechtenstein and Switzerland through their various relationships with the EU.

The European aviation security policy is based upon close coordination with Member States and stakeholders. The Commission participates effectively in all relevant events of the International Civil Aviation Organization (ICAO) and is fully engaged with key third country partners and regional organisations.

As a signatory of (EC) No 300/2008, passengers and baggage on flights travelling from the UK, terminating in EU member states or transferring from a country within the EU to a third country do not need to be subjected again to security controls. This system is known as 'One-Stop Security' and the same rules apply through recognition of equivalence principles for eight non-EU states including the United States and Canada.

However, the One-Stop system has not been implemented in the UK for non-domestic flights. Passengers travelling on connections at UK airports either from EU countries or non-EU countries are subjected to security screening even if they have already been screened to the same standards at the beginning of their journey. A passenger travelling to New York via Heathrow from Berlin is re-screened although a passenger carrying out the same journey from Manchester is not re-screened (unless local airport infrastructure or processes result in those passengers mixing with unscreened non-Domestic passengers).

⁵¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R0300&from=en>

7.2 Brexit Impact

Both the UK and the EU have expressed their desires to continue close cooperation on defence and safety.^{52 53} The UK have stated they will aim to continue close collaboration on aviation security, so that the UK and the EU can continue to address evolving shared threats in the most effective way.

In July 2018, the European Commission issued a Notice to Stakeholders warning of the effects that Brexit could have to security in the event of exit without any replacement security agreement being put in place or any agreed level of mutual recognition.

The UK would become a third country as of the withdrawal date and, in this event would no longer satisfy (EC) No 300/2008 on common civil aviation safety. This would have the following implications, particularly for connecting flights originating in the UK:

- An aircraft arriving into a critical part from the United Kingdom will be subjected to an aircraft security search any time after passenger disembarkation from the area to be searched and/or the unloading of the hold;
- Hold baggage of an inbound flight from the United Kingdom will be subject to security screening procedure when transferring onto a connecting flight⁵⁴;
- Passengers and cabin baggage: passengers of a flight originating from the United Kingdom will have to undergo another set of security screening procedure when transferring onto a connecting flight;

The notice does however state that these implications would not come to fruition should the UK join the relevant attachments to the annex of regulation (EU) 2015/1998.⁵⁵ For example if the UK was added to the third country list in attachment 4-B, it would join a list of countries including the United States, Canada, Singapore and others.

These non-EU member territories are recognised as applying security standards equivalent to the EU common basic standards for passenger and cabin baggage security which the UK of course currently complies to. If added to this list, passengers arriving on an inbound flight from the UK would not go through re-screening. Other such recognised third country lists are included in the same regulation. The UK could also be added to the recognised list for freight security through the same regulatory mechanism.

Post-Brexit, airlines flying cargo into the EU that have the UK as the Member State of reference for “Air Cargo or Mail Carrier operating into the Union from a Third Country Airport” (ACC3) status, may need to additionally apply to another Member State to authorise their cargo routes into other Member States. This would be duplicative and very costly.

There are clear precedents for the EU to recognise the UK’s security procedures despite the UK no longer being an EU member state. Such recognition would not require adjustment to UK aviation security standards because of today’s current compliance although it would require the UK not to diverge from (EC) No 300/2008 standards in future.

⁵² European Council (Art. 50). 23 March 2018

⁵³ HM Government. The Future Relationship between the United Kingdom and the European Union. 12 July 2018.

⁵⁴ Although not stated in the Notice to Stakeholders, this could have the impact of extending Minimum Connect Times at airports

⁵⁵ <https://publications.europa.eu/en/publication-detail/-/publication/c38f361d-8a99-11e5-b8b7-01aa75ed71a1>

There are also clear incentives for the EU to add the UK to these lists as extra screening would be detrimental to the entire European aviation industry rather than just the UK - duplication of security controls at EU-UK borders will cost tens of millions a year, a continuation of the status quo is therefore mutually beneficial.

The most likely outcome in the case of the base scenario for this study is that an agreement on regulatory convergence and potentially mutual recognition of aviation security standards is part of the comprehensive ASA negotiated between the UK and EU.

Brexit will have no implications for security at UK airports since the UK will continue to apply the current standards based on (EC) No 300/2008. As the UK only applies the One-Stop Security principles to connections from UK domestic flights, passengers connecting at UK airports from inbound flights from EU countries will undergo the same re-screening as they do today.

Depending on the terms of a future security agreement however, passengers connecting onto flights at EU airports originating from the United Kingdom may still require rescreening.

7.3 Implications for airlines

In the base scenario, it is assumed that incorporation of security recognition within a new EU-UK comprehensive Air Services Agreement would avoid the need for costly and time-consuming screening of aircraft on arrival from the UK or re-screening of passengers and the baggage where they are connecting at an EU airport.

Issue: Aviation Security

Most likely outcome: Recognition UK and EU security standards are included in a comprehensive ASA

	Transition period	Future
UK-registered carriers	No change to security regulatory framework as EU acquis applied	Recognition of UK and EU security standards is part of comprehensive EU-UK ASA
EU-registered carriers	No change to security regulatory framework	
Carriers registered outside ECAA	No change from the status quo	No change from the status quo

However, if there is no deal in place the baseline position is that, from the 29th March, UK aviation security standards would no longer be recognised by European airports causing re-screening and reduced competitiveness for airlines.

8 GROUND HANDLING

8.1 Section Overview

In this section we discuss the Brexit implications for the UK ground handling market and the airlines operating within it.

8.2 Background

Ground handling services at most EU airports were opened up to competition in 1997 following the Directive 96/67/EC.⁵⁶ This created a level-playing field across Europe, compelling heavily monopolised markets to become competitive, creating more choice for airlines, lower costs for airlines, and lower fares for customers. Barriers to entry for baggage handling, ramp handling, fuelling and freight services were relaxed.

The UK adopted the 1997 EC Directive immediately as a Statutory Instrument in UK law in The Airports (Ground Handling) Regulations 1997. The minimum requirement for number of agents applies to 18 UK airports. The UK's ground handling industry is now fully liberalised.

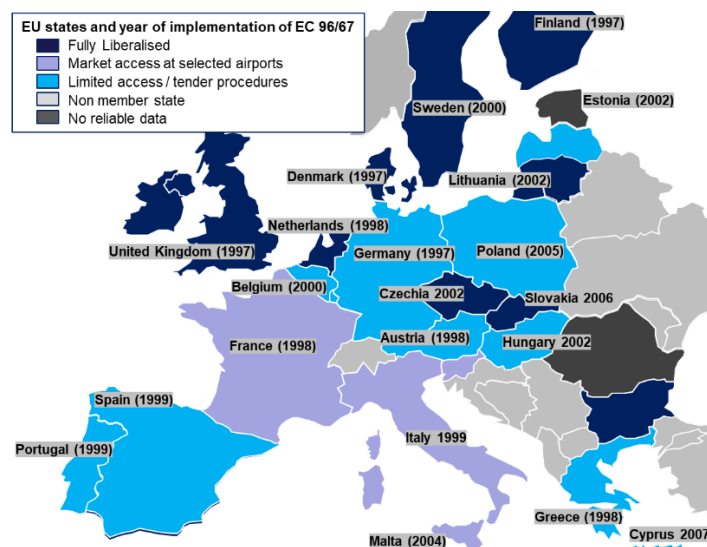


Figure 6: Structure of the Ground Handling Market in EU Member States (based on ‘Lessons learnt from the market for air freight ground handling at Amsterdam Airport Schiphol’. Burghouwt 2014)⁵⁷

Initial advocates of liberalisation pointed to Heathrow as an example of where competition had increased quality and reduced excessive fares. UK airports enjoyed a competitive ground handling market before the directive due largely to the close proximity of London's airports and the resulting competition between the respective handling agents.

Before the widespread liberalisation of ground handling in Europe, airlines complained that the monopoly suppliers, often provided by the airport or national carriers, offered inferior services on a discriminatory basis for excessive prices which drive down profit margins

⁵⁶ Official Journal of the European Communities, Council Directive 96/97, on access to the ground handling market at community airports. 15 October 1996.

⁵⁷ Journal of Air Transport management. Lessons learnt from the market for air freight ground handling at Amsterdam Airport Schiphol. Burghouwt, Port, Ritsema. 2014.

because of the large proportion of total costs that handling agents take. Handling agents were also accused of bundling services and imposing tariffs. Sometimes the agents would be carriers, therefore competitor airlines would force airlines to use their services.

The EU believes that the regulation has largely achieved its main objective - to open up the ground handling market.⁵⁸ This has undoubtedly been the case in Member States like Germany where airlines were previously forced to use the airport's handling services, although UK airports very rarely restricted the number of handlers who could operate to such an extent that the airlines were disadvantaged. Such policies have therefore had a limited effect on the UK market.

The Competition and Markets Authority (CMA), the UK governmental body responsible for preventing anti-competitive activities in British industry, have recently opened an investigation into the acquisition of ground handling provider *Airlines Services Limited* by competitor *Menzies*.⁵⁹ Both companies supply airlines operating at major UK airports with passenger, cargo, ramp and baggage handling and since the two companies are direct competitors, the CMA believe this merger could lead to less choice for the airlines operating there, potentially leading to higher prices and a lower quality of service.

The CMA investigation is a clear indication of support for competition in this market from a UK governmental body and is also a clear indication that measures are already in place to protect markets like ground handling from being dominated by large suppliers.

UK airports with over two million passengers a year cannot limit the number of third-party suppliers of ground handling services without permission from the UK CAA (under the guidelines of the Directive which imposes a minimum of two suppliers at each EU airport). The same applies at airports with more than one million passengers a year in relation to self-handling airport users.

Some UK airports manage their activity locally through authorisations (or "licences") issued by the airport to ground handling suppliers. In some cases, local byelaws provide a legal underpinning for such an arrangement. Such authorisations/ licences can include conditions, such as minimum performance standards that the ground handler is expected to meet in areas such as baggage delivery times, check-in queue times, airside driver discipline and on-time aircraft departure performance. They also have to comply with airport policies on, for example, health, safety and environmental matters. There can be escalating sanctions for poor performance by the ground handler leading ultimately to the withdrawal of its authorisation/ licence. However, there is no evidence that this final sanction ever being invoked.

8.3 Brexit impact

The status of the UK Airports (Ground handling) Regulations 1997 in UK law is not changed by the UK exiting the EU meaning that the conditions of Directive 96/67/EC continue in force, regardless of Brexit.

⁵⁸ European Commission. Mobility and Transport. https://ec.europa.eu/transport/modes/air/airports/ground_handling_market_en

⁵⁹ <https://www.gov.uk/government/news/airport-services-merger-raises-competition-concerns>

Whilst it is true that any reduction in the competitiveness of the UK ground handling market could have consequences for the operational costs and quality of service delivered to airlines operating out of UK airports, this would require changes in UK legislation.

8.4 Potential options

Two theoretical options are possible as follows:

1. The UK government allows airports to limit the number of suppliers beyond that allowed by the current legislation

For the composition of the ground handling market to change the UK government would have to actively change it with interventionist policy.

It could be considered that increasing participation in the ground handling market at airports could have potential negative outcomes, e.g. while it may lead to lower prices, it can reduce operational efficiency on the airport apron, have an adverse effect on the terms and conditions of handling staff and/or could impact safety.

Whilst some UK airports may favour limiting the number of companies supplying ground handling services to airlines in future, the Directive dictates clear processes for allowing restrictions only in certain circumstance and this has been fully adopted by the UK CAA.

2. The UK government continues to promote a fully liberalised market

The UK currently has a liberalised airport ground handling market and was one of the first to adopt the Directive 96/67/EC. This suggests that a more conservative approach to competition law is highly unlikely.

Since adoption, the UK CAA has only received three applications from UK airports to limit third party suppliers, all submitted in the late nineties just after the implementation of the directive.⁶⁰ Even these, for example Heathrow applying to restrict the number of third-party handlers to six or Gatwick applying to restrict the number to four can hardly be considered to be restricting the market.

The CMA upholds strict measures to ensure competitive markets and such measures will remain in place post Brexit – this position is supported by the recent investigation into the *Menzies* acquisition of *Airline Services Limited*.

It is technically feasible that the UK government could intervene to raise the minimum required number of suppliers thus enforcing more competition. However, there is a risk that this would create market failure as numerous ground handling agents competing in the same market may not provide satisfactory levels of service. It would therefore be expected that supporting a liberalised market will take the form of enforcement and compliance activities rather than legislative change.

8.5 Most likely outcome

The most likely outcome is that the EU Ground Handling Directive will continue to be enforced by UK government authorities immediately as it is today regardless of the outcome of the Brexit negotiations.

This assessment is based on the following factors:

- The Directive 96/67/EC has been adopted into UK law for over 20 years having relatively limited impacts on a market that was already relatively liberalised;

⁶⁰ <https://publicapps.caa.co.uk/docs/33/CAP%201409%20MAY16.pdf>

- Evidence exists of active management by the competition authorities to safeguard a competitive market;
- The UK CAA has an established procedure for managing applications from airports to restrict the number of suppliers at an airport although, in practice, these have been rarely used.
- There is no evidence to suggest that changes to the UK Airports (Ground handling) Regulations 1997 would be a priority for a government in a post-Brexit environment.

The most likely is that the provisions of the ground handling directive will continue to be applied as at present and there will be no change to the ground handling market.

8.6 Implications for airlines doing business

Issue: Future composition of the UK ground handling market

Most likely outcome: Continued full liberalisation

	Transition period	Future
All carriers	<p>No change to airline’s ability to access a competitive range of handling services at UK airports.</p> <p>The EU Directive is still applied under the UK Airports (Ground handling) Regulations 1997 and there is no evidence to suggest that the UK would be inclined to change this.</p>	<p>No change to airline’s ability to access a competitive range of handling services at UK airports.</p> <p>The EU Directive is still applied under the UK Airports (Ground handling) Regulations 1997 and there is no evidence to suggest that the UK would be minded to changes to this.</p>

The implications will be unaffected by the outcome of the negotiations because even in the event of no deal, all EU Directives including the ground handling Directive are already UK law.

9.1 Background

Slot allocation is currently governed across the EU by Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports (the Slot Regulation). According to this legislation, an airport slot is defined as the permission “to use the full range of airport infrastructure (runway, terminal, apron, gates, etc.) necessary to operate an air service at an airport on a specific date and time for the purpose of landing or take-off”. The Slot Regulation retains the principles of the IATA Worldwide Slot Guidelines.

Slot allocation is regulated at “coordinated airports” where there is insufficient capacity to meet actual or planned demand for airline operations. In the UK, there are eight airports designated by the State as coordinated. These are Birmingham, Bristol (at night only), Gatwick, Heathrow, London City, Luton, Manchester and Stansted airports. Airport Coordination Limited (ACL) is the body designated as the UK’s slot coordinator, responsible for allocation at the coordinated airports.

Slot allocation follows this standard IATA process, occurring twice yearly for the summer and winter scheduling seasons. The process enshrines several basic principles, including:

- so-called grandfather rights that entitle an airline to continue to use the same slot in the next scheduling period provided it has used that slot for at least 80% of the previous period;
- once grandfathered slots are accounted for the remaining un-used slots are pooled with new entrant airlines having priority access to 50% of these slots, free-of-charge. An airline is considered as a new entrant on a particular day, if after allocation:
 - it holds fewer than five slots in total on that day at that airport or in the case of an airport system fewer than four slots in the system of which the airport is a component; or
 - it holds fewer than five slots for an intra-EU route where there are three or fewer competitors;
- when there are competing bids for slots, a range of other criteria are applied, such as size and type of market, frequency and capacity on a route and local guidelines agreed by the airlines, the airport operator, air traffic control and others.

Secondary slot trading occurs at Heathrow and Gatwick Airports. This takes the form of slot exchanges accompanied by a payment by the airline acquiring the more valuable slot. Trading is overseen by the coordinator, ACL, applying a range of principles, including:

- confirmation that the trade is operationally feasible; and
- conformance with the Slot Regulation, especially that new entrant slots cannot be traded within the first two seasons of their allocation.

Trading is facilitated by ACL, which also provides information on completed slot trades.

Finally, the UK’s preferred scheme for increasing the capacity of the London airport system – a new North-West parallel runway at Heathrow – will create approximately 260000 new slots annually at that airport. Although the Slot Regulation and the Worldwide Slot Guidelines has

been used as the basis of allocation of large volumes of slots, there is no clear scheme in the UK at present for the allocation of such a large volume of new capacity.

9.2 Brexit impact

On Brexit, it is likely that, at least in the short-term, there will be no major change to the way slots are allocated or managed. The Slot Regulation is reflected in UK law through the UK statutory instrument 2006, no 2665, the airports slot allocation regulations 2006, which came into force on 1 January 2007. In addition, a recent House of Commons Briefing Paper noted *“If there is no substantive agreement with the EU which involves, for example, some sort of membership of the ECAA (when the Slot Regulation would continue to apply under the jurisdiction of the European courts), the UK would revert to the IATA Worldwide Slot Guidelines”*. At a very detailed level, in the short-term there would likely be some minor changes, for example the definition of new entrant would require reference to intra-EU routes to be removed.

Longer-term, the UK is likely to view Brexit as an opportunity to review the slot allocation process. The European Commission has reviewed and proposed changes to the Slot Regulation on several occasions over the past 20 years. Only minor revisions have been made and the UK has remained bound to the Slot Regulation by its treaty obligations. However, post-Brexit the UK will have the freedom to review unilaterally its approach to slot allocation with a view to increasing economic efficiency and flexibility.

The approach to the review of slot allocation is set out in the document *“Beyond the horizon. The future of UK aviation”*⁶¹, which in paragraph 5.17 states *“...the government wants to identify whether the market delivers the result for consumers and, if not, to explore a range of possible solutions”* with (paragraph 5.19) *“...the ambition to remain compliant with existing IATA Worldwide Slot Guidelines...”*. The main areas likely to be explored will likely include:

- the allocation of the new capacity that will become available at Heathrow with its new runway. Here it is likely that the feasibility of market mechanisms, such as slot auctions, will be explored. The government is committed to consult on how new capacity should best be allocated; and
- mechanisms for increasing domestic connectivity that might include safeguarding of some slots for domestic routes or through more market-oriented mechanisms such as enabling regions to bid for and buy slots.

The overall guiding principles for slot allocation are that it should be open, transparent, fair and ensure the most efficient use of constrained capacity in consumers’ interest.

In all scenarios except if the UK remains part of the ECAA, the UK will likely revert to IATA Worldwide Slot Guidelines for slot allocation but, longer-term will explore and consult on alternative (market) mechanisms especially for the allocation of the large volume of new capacity to be delivered by Heathrow’s third runway but also potentially more generally.

⁶¹ Beyond the horizon. The future of UK aviation. Next steps towards an Aviation Strategy, HM Government, April 2018,

9.3 Implication for airlines doing business

Issue: Slot allocation at the UK's coordinated airports

Most likely outcome: Continuation of the application of the IATA Worldwide Slot Guidelines accompanied by investigation of the application of market-based mechanisms, especially for the allocation of large volumes of new capacity

	Transition period	Future
All carriers	No change	Continued compliance with the IATA Worldwide Slot Guidelines. Potential for the introduction of market-based mechanisms, e.g. auctions, for allocation of new capacity. Longer-term, potential for move to more general market mechanisms.

The implications will be unaffected by the outcome of the Brexit negotiations because even in the event of no deal, the UK will continue to comply with the IATA Worldwide Slot Guidelines. The exploration of more market-based mechanisms for allocation of the large volume of slots to be created at Heathrow would likely continue irrespective of the Brexit outcome, even if the UK remained in the EU.

10 PASSENGER RIGHTS

10.1 Section overview

In this section we discuss the Brexit implications for the rights of passengers on flights to and from the UK. Three issues will be covered:

- Consumer protection and the future of the (EC) No 261/2004 on flights departing the UK;
- fare transparency rules; and
- the rights of passengers with reduced mobility.

10.2 Consumer protection

10.2.1 Background

Regulation (EC) No 261/2004⁶² sets out the conditions under which airlines are liable to compensate, either financially or through other rewards, customers who find themselves in the following situations for a given length of time:

- their flight is delayed;
- their flight is cancelled; or
- they have been denied boarding; or
- they have been downgraded.

These rights are applied to passengers flying:

- From an EU airport on any carrier;
- To an EU airport from a non-member airport on an EU carrier (“unless they received benefits or compensation and were given assistance in that third country”).

The delay time thresholds under which passengers are entitled to pay-outs from airlines might increase following proposed amendments to the (EC) No 261/2004 made in 2013 which are currently being held up because of issues surrounding Gibraltar.⁶³ The increase of the current delay threshold is welcomed in the airline community.

Regulation (EC) No 261/2004 represents a very significant financial burden on airlines in addition to the administrative burden and potential reputational damage. Airlines may argue that overly protective rules can also indirectly hurt the consumer as air fares increase and choice shrinks.

Prior to the introduction of Regulation (EC) No 261/2004, the 1999 Montreal Convention defined the scope for the liability of airlines in relation to damages incurred by passengers.⁶⁴

⁶² Regulation EC No (261/2004) establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights and repealing Regulation. February 2004.

⁶³ Council of the European Union. Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EC) No 261/2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights and Regulation (EC) No 2027/97 on air carrier liability in respect of the carriage of passengers and their baggage by air. 19 May 2015.

⁶⁴ IATA. 1 Convention for the Unification of Certain Rules for International Carriage by Air opened for Signature at Montreal on 28 May 1999.

This convention was ratified by the international aviation community including the European union. This convention is less punitive towards airlines.

10.2.2 Brexit impact

The EU's baseline notice to stakeholders regarding consumer protection⁶⁵ states that, following the UK's departure from the European Union, Regulation (EC) No 261/2004 will no longer apply to passengers departing from an airport located in the United Kingdom to an airport situated in the territory of an EU-27 Member State unless they are travelling on a community carrier.

The base scenario for our study assumes that the UK and the EU come to an agreement, ensuring a transitional period until the end of 2020 and the transcribing of all EU regulations into UK law during that time.

For the future, the UK may be minded to either continue to apply consumer protection regulation equivalent to (EC) No 261/2004, revert to the standards of the Montreal Convention, or enhance the level of protection provided to consumers through developing a bespoke scheme.

A less stringent set of UK consumer protection rules post-Brexit or reverting to the 1999 Montreal guidelines may be welcomed by some in the airline community. However, the misalignment between UK and EU standards caused would skew the current 'level playing field' for EU carriers and would therefore not be universally welcomed.

However, the UK government has committed to not letting current standards of protection fall below today's levels and is supportive of the protection afforded to consumers by (EC) No 261/2004 rules.⁶⁶

In future, the most likely outcome is that the UK will retain equivalent rules aligned with (EC) No 261/2004, at least for the foreseeable future.

Whilst the UK government will undoubtedly be lobbied on a variety of retained regulations across all industries after the transition period, there is no evidence to suggest that significant amendment to (EC) No 261/2004 would become an immediate post-transition period priority.

Depending on when the amendments to the (EC) No 261/2004 are finalised, it is possible that they will not be applicable to the UK as a member state which would mean passengers on flights departing the UK could be entitled to higher compensation than their EU counterparts. There would then be the potential for confusion over which set of consumer protection laws would apply to passengers on, for example, a flight from the UK to the EU operated by an EU carrier.

⁶⁵ European Commission. Notice to Stakeholders. WITHDRAWAL OF THE UNITED KINGDOM AND EU RULES ON CONSUMER PROTECTION AND PASSENGER RIGHTS. 27 February 2018.

⁶⁶ HM Government. April 2018. Beyond the Horizon – The Future of UK Aviation

10.2.3 Implications for airlines doing business

Issue: Applicability of the (EC) No 261/2004 post Brexit

Most likely outcome: Transcribed into UK law and kept for at least medium term

	Transition period	Future
UK-registered carriers	No change as (EC) No 261/2004 will continue to apply	Likely adoption of (EC) No 261/2004 equivalent rules for the short term
EU-registered carriers	No change as (EC) No 261/2004 will continue to apply	No change as (EC) No 261/2004 will continue to apply
Carriers registered outside ECAA	No change as (EC) No 261/2004 will continue to apply	Possible changes to rules for compensating passengers on flights from UK to an EU state

Implications for airlines doing business are significantly different in the event of the alternative 'No Deal' scenario described in Section 2.3 of this report. In this case (EC) No 261/2004 will no longer apply to passengers departing from an airport located in the United Kingdom to an airport situated in the territory of an EU-27 Member State unless they are travelling on a community carrier.

10.3 Fare transparency

10.3.1 Background

Consumer protection from hidden fares in the UK is enmeshed in a range of both international and domestic legislation. The issue is continually assessed by both the European Commission and the United Kingdom.

EU regulation aims to protect customers from excessive hidden fares through Regulation (EC) No 1008/2008.⁶⁷ Article 23 of the regulation 'Information and non-discrimination' obligates member state airlines to indicate and include all foreseeable and unavoidable costs such as taxes, surcharges and fees to ensure the consumer is aware of the final price to be paid at all times.

In the event of no deal this regulation would no longer apply to the UK market (assuming it is not transcribed) however, price transparency in general is controlled by various UK trading rules and domestic law which would prevent airlines in the UK from hiding fees from customers including the Consumer protection Act (2015)⁶⁸ which is enforced by the CAA and the Competition and Markets Authority (CMA) as well as all EU legislation. Therefore, in this most extreme scenario consumers would continue to be protected.

It is a core principle of ICAO that customers are fully aware of the total cost of the service before travel. Measures and regulations have been implemented in numerous non-EU

⁶⁷ Regulation EC No (1008/2008) on common rules for the operation of air services in the community. September 2008

⁶⁸ http://www.legislation.gov.uk/ukpga/2015/15/pdfs/ukpga_20150015_en.pdf

regions such as the United States, Saudi Arabia and Brazil which prohibit the exploitation of customers through non-transparent pricing.

The UK government has in fact outlined a strategy to crack down on hidden fare pricing for tickets, also citing concerns about additional charges for baggage, seat reservations and also excessive charges for changing the name on a reservation.⁶⁹ Both the UK aviation minister, Baroness Sugg and the government's overall future aviation strategy publication have expressed a wish to look at new ways to raise standards in this area.

Consultation of industry by the UK government is therefore expected with regards to this issue, although given that it is already heavily scrutinised by other governments, it is unlikely that the UK will find a new method to change how fare pricing is regulated.

10.3.2 Brexit impacts

Whilst rules regarding fare transparency have implications for the way in which prices are displayed on airlines websites or booking systems, the significance they can have on the overall business operation are minimal when compared with some of the issues discussed elsewhere in this report.

Even if the UK exiting the EU were to cause change in this area (which could be considered to be unlikely in the short to medium term anyway), any remedial actions required by airlines are likely to be one-off administrative changes to processes and systems.

10.3.3 Most likely outcome

The base scenario for this study assumes a withdrawal agreement and a transition period when the EU aviation acquis is adopted into UK law. In this case, the fare transparency requirements of regulation (EC) No1008/2008 and other relevant consumer protection regulation will still apply until the end of 2020.

In future, the likelihood of the UK government implementing more stringent rules to prevent hidden fares is conceivable. The UK Department for Transport (DfT) is currently looking at ways to make the consumer experience more equitable as part of a process started irrespective of Brexit. However, major divergence from the existing regulation seen in the EU and United States is unlikely given its continual scrutiny.

The most likely outcome is that there will be little change on the requirements for fare transparency in the UK.

⁶⁹ HM Government. April 2018. Beyond the Horizon – The Future of UK Aviation

10.3.4 Implications for airlines doing business

Issue: Fare Transparency

Most likely outcome: No impact on operations

	Transition period	Future
All carriers	No change to current regulatory framework.	UK government is not expected to reduce standards. Potential future investigations to raise standards are not expected to cause major divergence from accepted practice elsewhere and should have minimal impacts only

Even in the alternate scenario of a No Deal Brexit, fare transparency will continue to be governed by UK trading rules which will provide continued consumer protection.

10.4 Passengers with Reduced Mobility (PRM)

10.4.1 Background

There are estimated to be 70 million people living with disabilities in the EU.⁷⁰ Regulation is necessary to ensure that these individuals can overcome the challenges of accessing public transport. Businesses in the UK are estimated to lose £2bn a month through not providing adequate accessibility to disabled customers. The failure of airlines to offer sufficient accessibility for PRMs could prove costly given the significant proportion of the market that they represent.

The UK is generally seen as a leader in Europe in relation to accessibility to goods and services for disabled people.

In the UK, the 1995 Disability Discrimination Act which was later repealed and replaced by the 2010 Equality Act ensures adequate access to transport for passengers with reduced mobility (PRMs).⁷¹ Accessibility guidelines are also underpinned by the United Nations (UNCRC 2010)⁷² and also ICAO who set the guidelines for the non-discrimination of PRMs in aviation and also the provision of assistance when needed.

Requirements of airlines and airports for providing PRM services are therefore enforced by bodies above and below the EU which will remain in place post Brexit.

⁷⁰ Eurostat. Disability Statistics – barriers to social integration. November 2015

⁷¹ HM Government. The Equality Act. 2010.

⁷² United Nations. Convention on the Rights of Persons with Disabilities (CRPD).

Accessibility for PRMs in the UK is currently also subject to the regulation (EC) No 1107/2006⁷³, which states that an air carrier or its agent or a tour operator shall not refuse, on the grounds of disability or of reduced mobility, to accept a reservation for a flight departing from or arriving at an EU airport, or to embark a disabled person or a PRM at such an airport, provided that the person concerned has a valid ticket and reservation. In addition, the soon to be approved EU Accessibility Act (EAA) seeks to harmonise the fragmentation in national accessibility regulation across the single market.⁷⁴ This new legislation relates to improving accessibility of digital services including airline websites, apps and self-service terminals (SSTs) at airports. Such coverage of digital services is not found in the 2010 UK equality act.

The EU's baseline notice to stakeholders regarding consumer protection,⁷⁵ states that following the departure date, EU law granting specific rights for PRMs travelling by air will no longer apply to passengers using commercial air services who, depart from, transit through, or arrive at an airport in the United Kingdom. However, certain rights, such as assistance by air carriers, continue to apply to air passengers departing from an UK airport to an EU-27 airport if the operating carrier is a Community air carrier.

10.4.2 Brexit impact

Changes to accessibility regulation could have impacts for both airport operations and airlines.

Given the UK's very early move towards enabling access to transport for PRMs, it is inconceivable that current standards derived from UK legislation, the EU, ICAO and the United Nations would be lowered post Brexit. The government has indicated on numerous occasions following the vote to leave the EU that it has no intention of diminishing the rights of disabled people.⁷⁶ After withdrawal, the UK has said it remains fiercely committed to its obligations under the UN Convention on the Rights of People with Disabilities and to provide "world-leading" accessibility provision. Moreover, the UK government plans to make flying for disabled passengers as 'seamless as possible' through improved service levels and training for airport and airline staff.⁷⁷

Uncertainty does surround the implementation of the incoming EAA in the UK. If the directive is ratified before the 29th March 2019 then it will become UK law. If not, the UK would be required to produce its own legislation which mirrors the EAA and is not already covered in the 2010 Equality Act in order to keep pace with the progress made in Europe. The UK has been heavily involved in the negotiations of the EAA. Not reaping its benefits would be counterproductive.

All exported services from the UK to the EU must comply with EU standards and regulation. Having higher accessibility standards for services exported to the EU than in the domestic

⁷³ Regulation EC No (1107/2006) concerning the rights of disabled persons and persons with reduced mobility when travelling by air.

⁷⁴ European Parliament Think Tank. European Accessibility Act. 10th November 2017.

⁷⁵ European Commission. Notice to Stakeholders. WITHDRAWAL OF THE UNITED KINGDOM AND EU RULES ON CONSUMER PROTECTION AND PASSENGER RIGHTS. 27 February 2018

⁷⁶ House of Commons Library, Briefing Paper, Number CBP 7633, 16 April 2018. Brexit and Transport

⁷⁷ HM Government. April 2018. Beyond the Horizon – The Future of UK Aviation

market would not function effectively which makes any divergence in future UK legislation from the EAA very unlikely.

10.4.3 Most likely outcome

The rights of PRMs in the UK continue to be protected to at least the current standards even in the event of (EC) 1107/2006 not being transcribed into UK law after no deal being reached. Such protection would be enshrined by the UK equality act and a future UK digital accessibility act if required.

This assessment is based on the following factors:

- The EU is not the only source of legislation which protects the rights of disabled people in the UK marketplace;
- the UK government has committed to the United Nations obligations post Brexit; and
- any divergence from the incoming EAA is unlikely.

The most likely outcome is that there will be little change on the requirements for treatment of PRM in the UK.

10.4.4 Implications for airlines doing business

Issue: Rights of PRMs

Most likely outcome: No impact on operations

	Transition period	Future
All carriers	No change to current regulatory framework. Even without a transition period PRM rights are protected by UK law	No divergence from the status quo is expected

11 ENVIRONMENT

11.1 Section Overview

The UK's environmental regulation for aviation is built around key international agreements, through the UK's membership to the European Union (EU) and the International Civil Aviation Organisation (ICAO). The UK is committed to ICAO's Balanced Approach which provides a framework for managing the impact of aircraft noise. It has also agreed to participate in ICAO's emissions mitigation scheme, CORSIA, which will come into place in 2021. Within the EU, the UK is currently a member of the EU-ETS, which has covered aviation emissions for intra-EEA flights since 2012.

Through its membership of ICAO, it is unlikely that the UK would seek to withdraw from either ICAO's Balanced Approach or CORSIA (once it is implemented). However, on Brexit, the UK's future participation in the EU-ETS is uncertain.

In this section, we review how Brexit, along with the introduction of CORSIA, could interact and impact on the direction of aviation emissions regulation in the UK.

The remainder of this section is split into four sub-sections:

1. **Section 11.2:** The background of the current aviation emissions regulatory framework, this is the benchmark against which scenarios can be compared.
2. **Section 11.3:** The UK's two main scenarios for emissions regulation between now and 2021. During this period, the UK could well remain in the EU-ETS and aviation emissions would continue to be regulated by the scheme. There is, however, a possibility that the UK will abruptly leave the EU-ETS, which will impact on emissions regulation.
3. **Section 11.4:** The UK's scenarios from 2021, once CORSIA is put in place. The UK could pursue a CORSIA-only approach, or it could try to push for a more ambitious approach involving additional regulation, over and above CORSIA.
4. **Section 11.5:** Summary

11.2 Background

The EU has included aviation emissions in the EU-ETS since 2012. As the UK is still a member of the EU until March 2019, this is the regulatory framework that currently governs UK aviation emissions. In this section, we briefly describe this framework, to compare the scenarios.

In the EU-ETS, every CO₂ emission covered by the scheme requires an allowance – a European Union Allowance (EUA) – and as the total number of these allowances is capped leading to scarcity, they have a value. Companies that can cost-effectively reduce their emissions can make a profit by selling their allowances to companies that cannot. In theory, this should result in emissions abatement at the least possible cost.⁷⁸

⁷⁸ At least in the short-term. In the longer-run, the cost of emission abatement is likely to depend more on technological developments.

Since aviation emissions were brought into EU-ETS, airlines were given a certain amount of allowances each, and were free to buy and sell these in the same way as companies in other sectors included in the scheme.

Originally, the EU intended to cover all flights to and from the EEA in the EU-ETS. However, and following pushback from its trading partners and in order to facilitate an agreement in ICAO on a global market-based measure, the EU decided to limit the enforcement of EU ETS to intra-EEA flights only, and exempt extra-EEA ones. This is often referred to as the 'stop the clock' decision.⁷⁹

At the same time, at the 38th Assembly in 2013, ICAO agreed to develop a global market-based measure for international aviation. This global scheme was adopted in 2016 as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), and will come into force in 2019, with offsetting requirements starting in 2021. Since, the EU has prolonged the "stop the clock" twice. The most recent decision to exempt extra-EEA flights from EU ETS will expire at the end of 2023.⁸⁰

Initially, in 2012, the EU set the target level of emissions at circa 210 million tonnes of CO₂. This cap corresponds to 95% of the average annual CO₂ emissions from the aviation sector within the EEA over the period 2004-06. At the time, this represented a 10% increase on the total cap for emissions across all sectors:

- Airlines were allocated 82% of these aviation permits free of charge.
- 15% of allocation were auctioned.
- The remaining 3% were held back and distributed to new entrants and 'fast-growing' operators.

To reflect the reduction in the scope of the EU-ETS for aviation in 2013, the cap has been set significantly below its original level, as illustrated below.

⁷⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32013D0377>

⁸⁰ https://ec.europa.eu/clima/policies/transport/aviation_en#tab-0-0

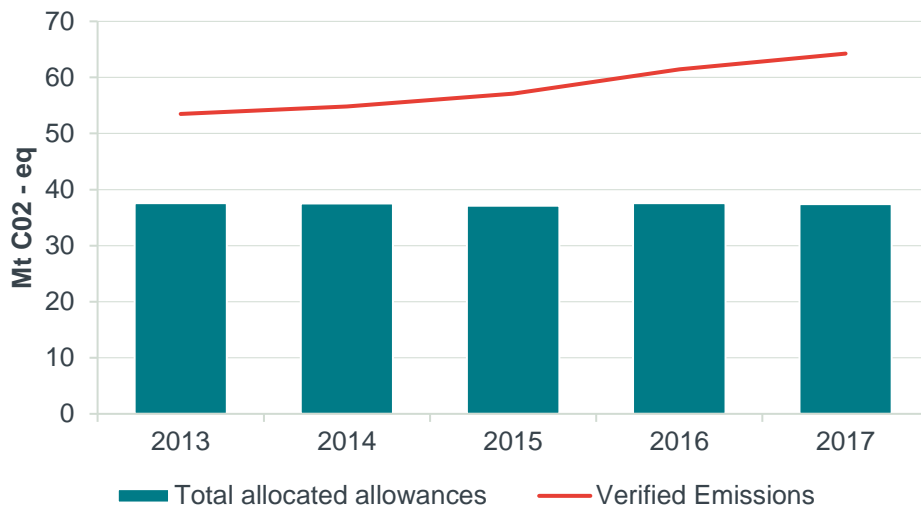


Figure 7 Supply and demand for EU Aviation Allowances

Source: Frontier illustration based on European Environment Agency⁸¹

As can also be seen in the figure above, the aviation industry has been a net buyer of allowances from other sectors (verified emissions represent the total number of emissions for which the industry requires permits while allocated allowances represent those initially allocated to it). To plug the gap between allocated and actual emissions, the sector has had to purchase permits from the stationary sector.⁸² In theory then, aviation’s purchase of emission allowances has helped reduce the total level of emissions in other sectors.

In 2013, the European Commission (EC) estimated the impact of the EU-ETS on airline ticket fares, and suggested this impact is relatively small. In a 2017 update to this analysis, looking at a range of scenarios for the regulation of aviation emissions (i.e. different coverage options for the EU-ETS), the EC suggested that “all policy scenarios up to 2020 and post-2020 imply minimal additional operating costs compared to a business-as-usual scenario without any market-based-measures in place to regulate aviation emissions.”⁸³

To date, the EC has estimated that the aviation industry’s purchase of permits from other sectors has reduced the overall supply of permits by around 100 million tonnes between 2012 and 2018. This estimation is based on the difference between the sector’s verified emissions and its allocated allowances.⁸⁴

11.3 Potential outcomes before 2021

Though the UK will leave the EU in March 2019, both parties have indicated their preferred scenario is to enter into a two-year transitional arrangement to allow sufficient time to negotiate their long-term relationship. Nonetheless, negotiations around this transitional arrangement are still on-going, and there is distinct possibility that the UK will ‘crash-out’ of the EU next March.

⁸¹ <https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1>

⁸² Although airlines can buy permits from any sector, the same is not true in reverse.

⁸³ See page 34 of https://ec.europa.eu/clima/sites/clima/files/swd_2017_31_en.pdf

⁸⁴ https://ec.europa.eu/clima/policies/ets/allowances/aviation_en

We review each of these two possibilities in turn, focusing on both how:

- the regulation may change; and
- it may impact on air travel and emissions.

1. Scenario 1: A Withdrawal Agreement is negotiated with a transition period

As part of this deal, the UK plans to remain in the EU-ETS until the end of Phase III, in December 2020.⁸⁵ If the deal is agreed by then, aviation emissions will continue to be regulated under the EU-ETS. In the rest of this section we describe how the regulation may change and the impact on demand and emissions.

It should be noted that while there may be changes in the regulation going forward, this would have happened anyway even if the UK had not decided to leave the EU. Therefore, this should be considered the 'business as usual' scenario.

In this scenario, UK aviation emissions will be regulated as they are now, but the total amount of allowances available will fall more rapidly than it has in recent years.

The aviation cap will remain unchanged until the end of Phase III while the cap for other sectors (i.e. 'stationary installations') will continue to reduce by 1.74% per year.

The EU plans to introduce the Market Stability Reserve (MSR) in January 2019. This reserve will acquire the surplus of allowances that has accumulated since the scheme began (caused by depressed demand). The MSR's introduction should reduce total permits in circulation by 16% in the first 8 months of 2019, and even more thereafter.⁸⁶

As airline emissions are forecast to continue growing, this will also put upward pressure on the price of EUAs.⁸⁷

Cumulatively, these changes are likely to see a higher EUA price in the future, and indeed EUA futures have reached record levels this year, as shown below.

⁸⁵ <https://www.parliament.uk/business/committees/committees-a-z/lords-select/eu-energy-environment-subcommittee/news-parliament-2017/minister-ets/>

⁸⁶ https://ec.europa.eu/clima/news/ets-market-stability-reserve-will-start-reducing-auction-volume-almost-265-million-allowances_en

⁸⁷ <https://www.iata.org/pressroom/pr/Pages/2016-10-18-02.aspx>

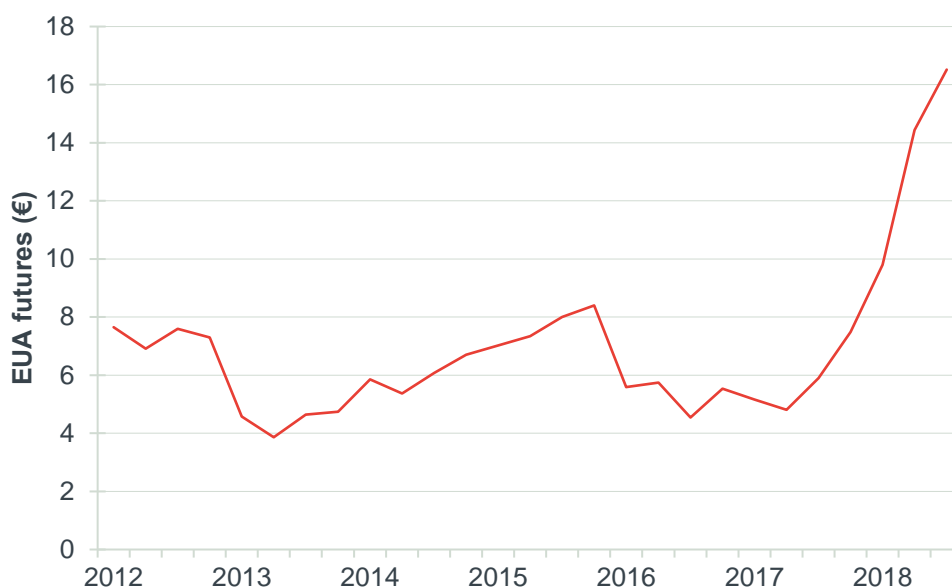


Figure 8: EUA prices Q1 2012 – Q3 2018

Source: Frontier Economics

Although this scenario entails the least change relative to the existing regulatory framework, it is possible the impact on air travel ticket prices and demand will be marginally higher than previously. Concurrently, overall abatement levels could increase.

- Analysts expect the EUA price to continue to increase for the remainder of Phase III, ending near the 20-25€/t mark by the end of 2020.⁸⁸ As a result, one would expect the impact on ticket prices to also increase. But by exactly how much will depend on the extent to which airlines ‘pass-on’ this cost increase to customers.
- To the extent that prices do increase, demand will fall marginally relative to a scenario in which there is no EU-ETS.
- As for emissions abatement, the main outcomes are likely to be.
 - Continued growth in emissions within the sector, as the demand for air travel continues to grow even as the impact of the EU ETS increases.
 - An increase in the purchase of permits from other sectors, contributing to a reduction in the overall supply (in conjunction with the MSR).

2. Scenario 2: No deal before March

As recently as July 2018, the UK government has re-affirmed its desire to remain within the EU-ETS.⁸⁹ Ultimately though, the UK will only stay in the EU-ETS beyond 29 March 2019 if a Withdrawal Agreement incorporating a transition period is agreed. There is a real risk that this may not be the case, meaning that the UK will cease to be a member of the EU-ETS.

⁸⁸ <https://www.ft.com/content/15f8e290-46d0-11e8-8ee8-cae73aab7ccb> ; <https://uk.reuters.com/article/us-eu-carbon-survey/analysts-raise-eu-carbon-price-forecasts-on-emissions-rise-uk-brevity-clarity-idUKKBN1HI1LR> ; <https://www.carbontracker.org/eu-carbon-prices-could-double-by-2021-and-quadruple-by-2030/>

⁸⁹ <https://utilityweek.co.uk/brexit-white-paper-signals-continuation-eu-ets/>

In this scenario, the EU-ETS and aviation emissions in the EU (excluding the UK) are likely to continue to be regulated as they are now. How UK emissions will be regulated is more uncertain.

As the UK is the second largest user of EU-ETS allowances and holds around 330 million EUAs out of the 3 billion in circulation, a sudden UK exit from the scheme could result in a significant reduction in demand for EUAs, depressing prices and resulting in a significant loss of revenue to the UK treasury (c. €340million).⁹⁰

Given the risks involved, the UK and the EU have taken steps to ensure this outcome is avoided.

- In late 2017, the EU changed the regulatory regime so that any permits issued by a member that subsequently leaves will be void. In effect, this means that all permits bought in the UK would become worthless if the UK left the scheme.
- Separately, and to protect itself against any loss of revenue, the UK government has brought forward the 2019 deadline for the submission of permits and emissions data to mid-March, before of the Article 50 deadline.⁹¹

Combined, these measures should be sufficient to ensure that UK firms are incentivised to purchase permits for 2018 and for the EUA price to remain relatively stable even in the event of a sudden UK exit (the MSR could also help).

While the regulation of aviation emissions in the EU would remain unchanged, it is unclear how aviation emissions in UK airspace would then be regulated. The range of scenarios include.

- Emissions are not subject to any carbon pricing regulation, in the same way as currently applies to emissions from extra EU flights.
- The UK approximates the EU-ETS, perhaps by expanding the scope of the UK carbon floor and apply it to aviation (it currently only covers electricity generation). This is currently set at £18/t until 2020.⁹² Airlines could still be given a proportion of permits for free, just as they currently do under the EU-ETS, but any additional allocations would be priced at the level of the carbon floor.

A 'no-deal' exit from the EU is likely to create significant disruption, both to the economy as a whole and to air-travel to and from the UK. Through the EU, the UK is signed-up to a whole suite of international agreements, on which trade and movements between the UK and other countries depend. In the event of a 'no-deal' Brexit, the UK's status within these agreements will be uncertain, and cause major disruptions. As an international sector, aviation is likely to be especially affected. In the most extreme scenario, air travel to and from certain countries may not even be possible, if existing air service agreements are not adequately replaced. Cumulatively, these changes will dwarf any impact resulting from a change in emissions regulation so the most likely impact on a 'no deal' Brexit is for air travel to contract and for emissions to fall.

⁹⁰ <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/eu-energy-and-environment-subcommittee/eu-ets/oral/80785.pdf>

⁹¹ <https://www.utilitywise.com/2018/03/15/brexit-eu-ets-deadline/>

⁹² <researchbriefings.files.parliament.uk/documents/SN05927/SN05927.pdf>

But even in this scenario, one would eventually expect new UK-international treaties to be agreed and for the economy to return to a stable pathway. Exactly how long the process will take is a matter of debate and difficult to estimate *a-priori*.

In this section, we assume that the only changes that will occur, post a no-deal Brexit, are to the regulation of emissions. In other words, we assume that demand, and the rest of the economy will not be affected. Although this is unrealistic, especially in the short-term, it allows us to isolate the impact of a possible change in emissions regulation, and for a more direct comparison to the previous scenario. It can provide an indication of what could happen if the economy does eventually recover.

Assuming the rest of the economy is unaffected, the UK could choose to align its regulation to that of the EU. In this scenario, the impact on air travel and emissions will be similar to the base scenario.⁹³ Whether the impact is exactly the same, slightly larger, or slightly smaller, will largely depend on how effectively the price of UK allowances mirrors the price of EUAs.

By contrast, if aviation emissions are no longer covered, the cost of air travel would be lower, relative to the previous scenario. It remains an open question whether the EU would be willing to accept a regulatory framework in which all flights to and from the UK are not covered by the EU-ETS. If it does, then one would expect air travel between the EU and the UK to increase marginally. A similar impact would be expected in the domestic market, though in this case no negotiations with other jurisdictions would be necessary.⁹⁴

11.4 Potential outcomes after 2021

If the short-term future of UK aviation is subject to a degree of uncertainty, remaining in the EU-ETS remains the UK's preference. In the longer-term, the government's preference is yet to be fully spelt out. This situation could be further complicated by the introduction of CORSIA in 2021. In this section, we explore two possible pathways:

1. The UK leaves the EU-ETS and implements the CORSIA regime only.
2. The UK implements CORSIA, and an additional scheme on top.

We review these scenarios in turn, focusing on both how:

- the regulation may change; and
- it may impact on air travel and emissions.

1. Long-term scenario 1: the UK regulates aviation emissions through CORSIA only

CORSIA is the first major international aviation emissions mitigation scheme. More than 70 countries have agreed to participate in the scheme, representing 85% of international aviation activity.

Should the UK choose to limit the regulation of emissions to CORSIA only, only emissions from international flights that exceed the average baseline emissions of 2019 and 2020

⁹³ Ignoring any short-term negative impacts from the UK's sudden exit from existing international agreements.

⁹⁴ For reference, the Department for Transport estimated that there were 32 million domestic passengers in 2016 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/674749/uk-aviation-forecasts-2017.pdf

would be required to be offset. As in the second short-term scenario, domestic flights would be exempt from any emissions regulation – i.e. CORSIA covers international aviation only.⁹⁵

CORSIA is a carbon-offsetting, rather than a cap and trade, scheme. Airlines have to pay to offset their carbon emissions through carbon-offsetting projects. In theory, the scheme will help cancel out emissions from the aviation sector through the reduction of emissions in other sectors or locations.

There is still significant uncertainty as to the nature and design of CORSIA's offset units. Existing international credits (such as the UNCCC's clean development mechanism) are a likely candidate however these credits are over-supplied and prices are currently below €1 per unit.

However, reforms are currently ongoing and the price of these credits will likely increase over time. According to the ICAO, the unit price of emissions (i.e. the carbon price) will be in the range of \$8 to \$20 in 2020, rising to between \$20-\$40 in 2035.⁹⁶

Should the UK choose to adopt a CORSIA only approach in 2021, and the EU accepts that flights between the EU and the UK should only be covered by CORSIA, then the change in baseline will likely result in a regulatory regime that is overall less restrictive for intra-EEA flights, relative to the EU-ETS at the end of Phase III but more restrictive for all other flights.

By contrast, it will be more restrictive for extra-EEA flights as these flights were previously not subject to emissions regulation. While only a limited amount of emissions will need to be offset in the first few years of the scheme, demand for air travel is expected to grow consistently over the coming decades so the scheme's impact will increase over time. In the UK, DfT suggests total passenger numbers will increase at a rate of 1.2-1.5% per year until 2030 and it is plausible that the total number of emissions that will need to be offset will increase.⁹⁷

As domestic flights will not be covered, the impacts on these flights will be similar to that described in the short-term scenario 2.

2: Long-term scenario 2: the UK regulates aviation emissions with an additional scheme, on top of CORSIA

Though CORSIA will cover a much larger set of flights than the EU-ETS, it is possible that the UK will seek to go even further in its ambition. The UK could choose to implement its own scheme for domestic flights, *and/or* an additional scheme, on top of CORSIA, for international flights.

The 2008 Climate Change Act requires the government to set legally-binding carbon budget that can ensure the UK reduces emissions by 80% by 2050, relative to 1990 levels. As recently as June 2018, the Committee on Climate Change has expressed its concern that current government policy is allowing aviation emissions to rise too quickly. Their analysis suggests 2050 aviation emissions must not exceed 2005 levels. This is in line with industry targets,

⁹⁵ In addition, flights to non-signatory countries will not be covered.

⁹⁶ https://www.icao.int/environmental-protection/Documents/A39_CORSA_FAQs.pdf

⁹⁷ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/674749/uk-aviation-forecasts-2017.pdf

noting that the industry has in place a roadmap to achieve these targets without the need for permanent market-based measures. Indeed, they say: “Higher levels of aviation emissions in 2050 must not be planned for, since this would place an unreasonably large burden on other sectors”.⁹⁸To ensure these targets are met, the UK may therefore decide to enact a more ambitious emissions reduction scheme than the ‘CORSIA only’ option.

As domestic flights are not covered by CORSIA, the UK could implement a specific UK-only scheme to cover these flights. If the UK follows this approach, the impact would essentially be the opposite of that described in short term scenario 2 and the same conclusions apply but in reverse. The price of domestic flights will be higher, with demand and emissions lower, relative to a world in which no domestic scheme exists.

If the UK wishes to go further than CORSIA for international flights, it could try to introduce another scheme alongside it. However, the EU’s experience with the EU-ETS suggests trying anything outside of the ICAO would be very contentious, especially if the UK tried to act unilaterally.

Another option would be for the UK to pursue a regional scheme that would only cover flights within the EEA, just as the EU-ETS does today. If the EU chooses to continue to regulate aviation emissions under the EU-ETS – even after the introduction of CORSIA – then this would be a possibility.

The European Commission default option is for aviation emissions to continue to be regulated through the EU-ETS, even once CORSIA is implemented.⁹⁹ However, in its decision to extend the ‘stop the clock’ decision until 2023, the EC has also made it clear that there will be a further review of the existing EU-ETS aviation scheme in light of CORSIA.¹⁰⁰ At this stage, it is difficult to predict the outcome of that review.

If the EU removes aviation from the EU-ETS, then it is unlikely that the UK could introduce a supplementary scheme for international flights over and above CORSIA. However, if the EU chooses to continue to regulate EU aviation emissions through Phase IV of the EU-ETS, then the UK could join (or seek to mirror) this scheme. In this scenario, flights between the UK and the EEA would be regulated more stringently than flights between the UK and countries outside the EEA.

Indeed, phase IV of the EU-ETS is likely to be more stringent than CORSIA as:

- The baseline for allowable emissions in the aviation sector is lower, as described previously.
- The yearly reduction in the overall cap for both stationary installations and aviation will increase from 1.74% to 2.2%. As a result, aviation permits will gradually decrease from 38 million permits in 2020 to 30 million by 2030.
- The MSR will continue to remove surplus allowances from the market such that the total amount of allowances put in the reserve will reach 24% in 2023. More generally, the MSR will be empowered to intervene to improve the EU-ETS’s resilience to possible demand shocks.¹⁰¹

⁹⁸ <https://www.theccc.org.uk/wp-content/uploads/2018/06/CCC-letter-to-DfT-on-Airports-National-Policy-Statement.pdf>

⁹⁹ https://ec.europa.eu/clima/sites/clima/files/swd_2017_31_en.pdf

¹⁰⁰ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.350.01.0007.01.ENG

¹⁰¹ https://ec.europa.eu/clima/policies/ets/revision_en

If aviation emissions are regulated in the manner described in the figure above, then the impact of emissions regulation is likely to be higher on flights to the EEA (and domestic flights if they are covered by the same scheme) than to flights outside the EEA. Again though, such a scenario is only possible on two conditions: a) the EU chooses to continue to regulate intra-EEA aviation emissions through the EU-ETS despite the introduction of CORSIA, and b) the UK wishes to adopt emissions regulation for international flights that goes over and above CORSIA. Whether either will happen is uncertain.

11.5 Summary

In the short-term, we identified two main possibilities:

1. The UK stays within the EU-ETS until the end of Phase 3 (in 2020) as part of a Brexit deal;
2. The UK exits the EU-ETS as a result of a 'no-deal' Brexit.

In the first scenario, the regulatory framework will remain as it is today. Under the current arrangement, the total amount of allowances available will decrease, and the price of allowances is set to increase as a result. This could increase the cost of air-travel and marginally reduce demand.

By contrast, a no-deal scenario will create significant disruptions throughout the UK economy, and to air travel in particular. If the existing air service agreements are not maintained, travel to and from certain countries may not even be possible. With the important caveat that these disruptions are eventually resolved, and that the economy reverts to a stable pathway, the UK may choose *not* to replace existing emissions regulation. If this happens, then this may result in slightly cheaper air-travel, especially in the domestic market.

In the longer-term, we have outlined two options:

1. the UK regulates aviation emissions through CORSIA only; and
2. the UK regulates aviation emissions through an additional scheme, on top of CORSIA.

From a regulatory perspective, the second scenario is more stringent for UK flights but the same for international ones.

In the short term the outcome is entirely dependent on the negotiations, therefore, assuming a deal is reached before March, the UK will remain part of the EU ETS throughout the transition period.

In the long term, the CORSIA only scenario could be characterised as the 'central' case as the UK's commitment to it is clear, and the scheme was the result of multiple years of negotiations between many countries, with the UK a key player. Still, the UK's government commitment to be a leader in the fight against climate change, coupled with the uncertainty surrounding how the EU will amend the EU-ETS following the introduction of CORSIA means other outcomes are also possible. The UK could choose to regulate emissions from domestic flights in a UK-specific scheme. It could also choose to align itself to the EU-ETS for the regulation of intra-EEA flights, should the EU choose to continue applying the scheme to aviation emissions.

12 LABOUR MARKET

12.1 Section Overview

In this section we discuss the Brexit implications for the UK labour market and the resulting effects of airlines employing within and from the UK.

12.2 Background

The number of global passengers is projected to double to 7.8 billion by 2036 of which Europe will account for 1.5 billion passengers, growing at 2.3% per year.¹⁰² In order to facilitate this predicted increase in consumer demand, demand for labour will inevitably rise - within the next 20 years, commercial aviation could increase by one-third the number of jobs it supports. That would mean 99 million jobs generating nearly \$6 trillion in annual economic activity by 2034. The majority of hiring managers across the industry expect ground operations, customer service and cabin crews to see the biggest increases in job growth. Managing the retention, training and recruitment of these workers to fill the job gaps will be a challenge for all industry stakeholders.

The EU has been instrumental in facilitating a flexible jobs market across Europe through the free movement of Labour across the union. Brexit could pose a new threat to airlines aiming to find new talent and train existing talent in and out of the UK in order to satisfy growing consumer demand and the changing consumer service role.

Free movement of people creates flexibility for workers to move around the EU and also for companies operating in Europe to employ any worker with an EU passport. Currently, any EU national is able to live and work in the UK with the same citizen rights as UK nationals. The EU's labour market has been integral also for global market access. UK national specialist engineers are able to relocate with minimal burden to assembly lines in France or Germany. The same mobility is enjoyed by international consortia collaborating on R&D, where capabilities that require integration are located across EU countries. EU pilot and air traffic controller/engineer licences are effectively portable across the EU.

A predictable result of the Brexit negotiations is the end of free movement of people since it was a cornerstone of the campaign to leave the EU and the UK government has clearly stated that it will end.¹⁰³ However, the government has also outlined a number of exceptions to the end of free movement that it wishes to implement, provided that they are reciprocated by the EU. In the eyes of the UK, the future arrangement for movement of labour should have the following principles:

- supports businesses to provide services and to move their talented people;
- allows citizens to travel freely, without a visa, for tourism and temporary business activity;
- facilitates mobility for students and young people, enabling them to continue to benefit from world leading universities and the cultural experiences the UK and the EU have to offer;

¹⁰² <https://www.iata.org/pressroom/pr/Pages/2017-10-24-01.aspx>

¹⁰³ HM Government. The Future Relationship between the United Kingdom and the European Union. 12 July 2018

- streamlines smooth passage for legitimate travel while strengthening the security of the UK's borders; and
- provides for other defined mobility provisions, including arrangements to ensure that UK citizens living in the EU, in future, continue to benefit from their pension entitlements and associated healthcare.

The end of free movement could therefore be watered down to prevent the damaging effects to businesses and people, however, any change from the status quo will reduce the current level of flexibility in the European labour market and any exception would have to be reciprocated by the EU in order to become UK legislation.

The rights of EU citizens to work in the EU and reciprocated rights for UK citizens are entirely dependent on the outcome of negotiations. It is all but certain that free movement will end which will restrict the ability for companies operating in the UK to employ all EU citizens and will restrict EU companies from employing UK citizens.

The UK government aims to grant 'settled status' to EU nationals who have been living in the UK for at least five years by the end of 2020. EU nationals who have moved to the UK legally before that date may seek to stay until they have stayed for five years under 'pre-settled status', at which point they may seek 'settled status', the deadline for such applications will be June 2021. EU nationals arriving after this date will no longer have the automatic right to live and work in the UK unless they hold settled or pre-settled status, entry will then be granted based on economic need.¹⁰⁴

Full details of the scheme are still subject to approval by the UK Parliament and the rights for citizens of Norway, Iceland, Liechtenstein and Switzerland are still being negotiated. The continuation of free movement throughout the transitional period is dependent on a finalised withdrawal agreement by March 2019.

12.3 Brexit impact

Once the UK has left the single market, the level and ease of immigration into the EU from the UK and vice versa will be the responsibility of national governments who can decide based on economic need. One likely outcome is migrants will be sorted into low skilled and high skilled categories.

Brexit supporters were primarily concerned with excessive levels of unskilled migrant labour, of which many companies across all industries including airlines have taken advantage. Therefore, it is a reasonable assumption that the UK government will favour high skilled labour over low skilled labour. However, the effects of restricted numbers of low skilled migrants will take years to filter through to business given the UK Government's recently announced settled status policy.

A more immediate concern for airlines is licensing for highly skilled personnel like pilots, which added to the concern surrounding pilot shortages worldwide, could be damaging for the industry. As a non-voting member of EASA, there will be no impact on licensing and UK pilots will continue working for foreign airlines. Outside EASA, licenses of British pilots would

¹⁰⁴ <https://www.gov.uk/guidance/status-of-eu-nationals-in-the-uk-what-you-need-to-know>

no longer be valid, causing disruption to airline services. The validity of licenses of EU national pilots working in the UK is dependent on the CAA's decision.

The same issue would confront airlines employing British trained flights crews. As discussed in Section 5.2, we believe it to be unlikely that the UK will separate from EASA.

Nonetheless, the citizen rights of pilots and flight crews will no longer be harmonised across the EU-UK border which would make the future long-term hiring of such workers more strenuous, time-consuming and costly for UK airlines employing EU nationals and vice versa.

There is a high possibility that Brexit could lead to skill shortages in a variety of sectors including aviation. This will be more detrimental to British aerospace and R&D although it will inevitably have negative knock-on effects to airline operations.

12.4 Possible options

There is only one eventual outcome for the UK labour market without the entire Brexit process being reversed. Free movement will come to an end, the remaining uncertainty surrounds when exactly this will happen. The two scenarios are as follows:

- **Scenario 1:** The UK leaves on the 29th March 2019 with no deal, putting an end to freedom of movement immediately.
- **Scenario 2:** A withdrawal agreement is reached and freedom of movement ends at the end of the transition period, 31st December 2020, at which point the 'settled status' system will be kick into action.

The issue of EASA pilot licenses is dependent on the outcomes of future EASA membership discussed in section 5.2.

12.5 Most likely outcome

Given the supposed unlikelihood of the 'no deal' scenario expressed by the UK government, it is reasonable to assume that a deal will be reached and freedom of movement will last until the end of the transition period. After then end of the transition period, free movement will end. Mobility of employment will then be decided on a case-by-case basis, authorised by work permits predicated on the argument of economic need. It is likely that the restrictions imposed by one side will be reciprocated by the other.

This assessment is based on the following factors:

- Both the UK and the EU recognise the importance of reaching a deal and avoiding a 'no deal' scenario.
- Putting an end to the freedom of movement was a cornerstone of the campaign for the UK to leave the EU and has been outlined in the UK governments post Brexit plans.
- Freedom of movement is included in the transition deal.

The most likely outcome is free movement will end at the end of the transition period and that employment of EU nationals in the UK will be determined by arguments of economic need and vice versa.

12.6 Implications for airlines doing business

Freedom of movement will come to an end thus restricting the flow of pilots, flight crews, air traffic controllers, ground operators and many other workers across the EU-UK border. This restriction will be relaxed for skilled workers going from the EU to the UK whereas free movement for skilled workers heading in the opposite direction and for low skilled labour is less clear and likely to be more complicated for businesses.

It is not certain exactly what the end of freedom of movement will look like. Both the UK and EU could treat each other’s nationals in the same way non-EU nationals are treated today, or there could be a range of exceptions to ensure the smooth running of industry as outlined in the UK government’s White Paper outlined above. This is entirely dependent on the provisions of the withdrawal agreement.

Ultimately, the UK government will assume control of who enters the UK. It is therefore highly unlikely that decisions having an adverse effect on the economy such as blocking the entry of pilots from the EU would be taken by the government.

Issue: UK labour market without freedom of movement

Most likely outcome: Freedom of movement ends after the transition period

	Transition period	Future
UK-registered carriers	No change as freedom of movement will continue	Benefits of a flexible labour force will end in some form
EU-registered carriers		Benefits of employing British workers flexibly will end
Carriers registered outside ECAA		Same labour market rules for employing British workers apply

The issue of licensing is more complex and threatening to airline operations. It is also more dependent on the negotiations. In the unlikely event of the UK leaving EASA, separate decisions would have to be taken by the EU and the CAA with regards to the validity of British held licenses and EU held licences in the respective territories.

In the case of no deal, there will be no transition period and free movement will end immediately on the 29th March 2019. The same principles that would be applied after the transition period of employment based on economic need would be brought forward.

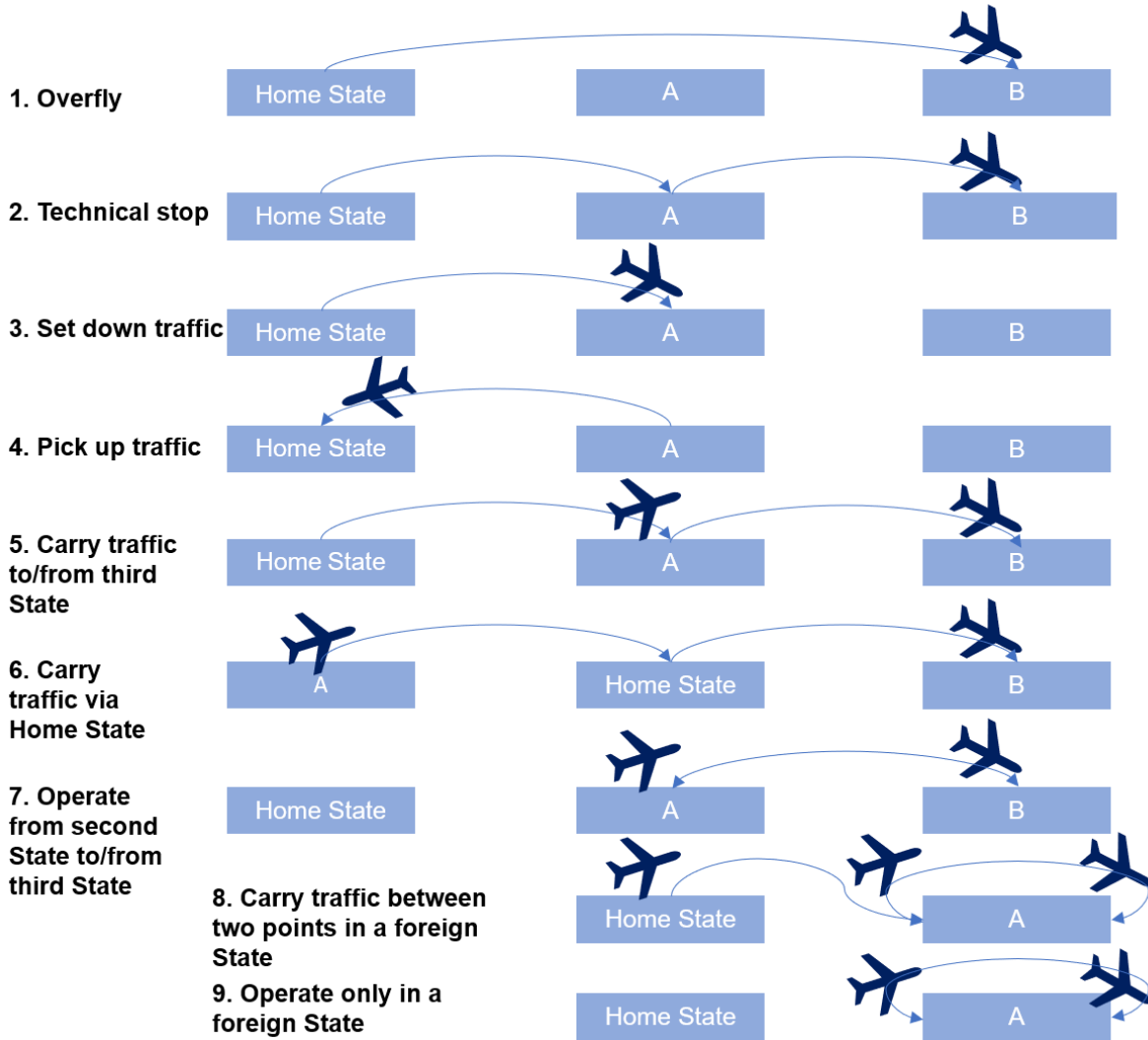
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APPENDIX B – FREEDOMS OF THE AIR

Nine Freedoms of the Air



APPENDIX C – SUMMARY OF MOST LIKELY OUTCOMES

The following table provides a simplified, summary description of the most likely outcomes of Brexit for each of the topics discussed for the main scenario, of a comprehensive EU-UK Air Services Agreement. A full description of the logic and rationale that results in these outcomes is provided in Part B of this report, sections 4 to 12.

Topic	Most Likely Outcome
<p>Air Services Agreements (ASAs)</p> <ul style="list-style-type: none"> • New UK-Third Country (TC) ASAs • Future EU-TC ASAs 	<ul style="list-style-type: none"> • UK will withdraw from all EU-level bilateral ASAs and renegotiate bilateral agreements with third countries • Minimal impact on other EU-TC air transport relations
<p>Flight Operations & Safety</p> <ul style="list-style-type: none"> • Membership of the European Aviation Safety Agency (EASA) • Air Traffic Management (ATM) and Single European Sky (SES) framework 	<ul style="list-style-type: none"> • UK will become a Third Country member of EASA • UK will continue to apply technical and interoperability standards on a voluntary basis
<p>Border Management</p> <ul style="list-style-type: none"> • Passenger Border Control • Visa Requirements • Passenger Data Exchange • Customs • Freedom of Trade • New system for Customs Declarations (CDS) 	<ul style="list-style-type: none"> • UK borders are controlled using a ‘third lane’ for EEA passengers • Reciprocal arrangements put in place by EU and UK • API and PNR data will continue to be transferred to and from the UK through UK-TC agreements (including a new EU-UK agreement) • Outcome dependent on negotiations • Outcome dependent on negotiations although non-tariff barriers are expected regardless of deal and tariffs will not be imposed on aircraft parts • CDS will be in operation by the end of the transition period

Topic	Most Likely Outcome
Aviation Security <ul style="list-style-type: none"> • Common Security Standards 	<ul style="list-style-type: none"> • An agreement is reached on regulatory convergence and potentially mutual recognition of aviation security standards between the UK and EU
Ground Handling <ul style="list-style-type: none"> • Applicability of EC Ground Handling Directive 	<ul style="list-style-type: none"> • No change to the UK ground handling market
Slots <ul style="list-style-type: none"> • Slot allocation at UK airports 	<ul style="list-style-type: none"> • Outside ECAA the UK will revert to IATA worldwide slot guidelines but long term may explore alternative market mechanisms
Passenger Rights <ul style="list-style-type: none"> • Consumer Protection • Fare Transparency • Passengers with Reduced Mobility (PRMs) 	<ul style="list-style-type: none"> • For the foreseeable future, the UK will retain rules equivalent to the (EC) No 261/2004 • Little change on the requirements for fare transparency in the UK • Little change on the requirements for treatment of PRMs in the UK
Environment <ul style="list-style-type: none"> • UK aviation emissions regulations 	<ul style="list-style-type: none"> • UK emissions will continue to be governed by EU ETS in the short term and by CORSIA plus any UK specific scheme in the long term
Labour Market <ul style="list-style-type: none"> • Licences • Freedom of Movement 	<ul style="list-style-type: none"> • Licenses continue to be valid if UK remains within EASA • Freedom of movement ends after the transition period