

**York Aviation**

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**BRISTOL AIRPORT LIMITED**

**THE IMPACT OF DEVOLVING  
AIR PASSENGER DUTY TO WALES**

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## 0 KEY POINTS

- 0.1 In October 2014, Bristol Airport commissioned York Aviation to provide an overview assessment of the potential impact on the airport and the South West economy of devolution of Air Passenger Duty (APD) to Wales. This followed the agreement of a cross-party motion in the National Assembly setting out proposals for further devolution in Wales, including control of APD on direct long-haul flights.
- 0.2 Devolution of APD on direct long-haul flights was initially included in recommendations made by the Silk Commission in its first report in November 2012. While the recommendation relating to APD was rejected by the UK Government in November 2013, the Welsh Government has continued to call for these powers.
- 0.3 Since this report was commissioned, the Smith Commission has published its recommendations for further devolution of powers to the Scottish Parliament, including a proposal which would give the Scottish Government the power to charge tax on air passengers leaving Scottish airports – or abolish such a tax, as is the stated intention of the current administration.
- 0.4 Carwyn Jones, the First Minister of Wales, reacted to the publication of the Smith Commission report by swiftly calling for the same powers to be devolved to Wales, including Air Passenger Duty, stating that “whatever has been offered to Scotland today must also be offered to Wales”. He went on to say “we would certainly expect to be offered full control over...Air Passenger Duty”.
- 0.5 Bristol Airport believes that if APD is devolved across all bands, then the Welsh Government will choose to either abolish or substantially reduce the tax, thereby potentially making travel via airports in Wales cheaper, other things being equal, and potentially more attractive to passengers than nearby airports where the tax remains as currently, such as Bristol. The result will be a position which is anti-competitive, where competitors are not operating from a level playing field.
- 0.6 Even if restricted to direct long haul flights, as initially recommended by the Silk Commission, Bristol Airport contends that devolution of APD would have a significant impact on its existing route network and future development plans, as well as reducing the tax-take for the Treasury.

- 0.7 York Aviation has developed a simple gravity model to assess how changes in air fares at Cardiff brought about by changes in APD, including full devolution and the direct long-haul scenario, might affect the distribution of demand between the two airports.
- 0.8 We have estimated the economic impacts of devolving APD to Wales based on the last economic impact study of the airport undertaken by Roger Tym and Partners in 2008. We have also considered the impact of changes in demand patterns between Bristol and Cardiff on inbound tourism.
- 0.9 We have considered five traffic scenarios:
- 50% Reduction in APD;
  - 100% Reduction in APD;
  - High Impact 50% Reduction in APD;
  - High Impact 100% Reduction in APD;
  - 100% Reduction in APD on Direct Long Haul flights.
- 0.10 Given the current size and market position of Cardiff, we believe that the High Impact scenarios are highly plausible.
- 0.11 In 2015, the first year of an assumed change in APD, the impact ranges from around 0.1 million passengers per annum (mppa) in the 50% Reduction scenario to around 0.4 million mppa in the High Impact 100% Reduction scenario. This represents a loss of between 1.5% and 6.2% of Base Case traffic. By 2020, the low end impact is 0.2 mppa (2.7%) in the 50% Reduction scenario, the high end impact has reached around 1.0 mppa (15.7%) in the High Impact 100% reduction scenario.
- 0.12 By the end of the forecast period, 2025, the percentage impact of the traffic scenarios has stabilised but the impact on passengers has continued to grow as the market as a whole has grown and Bristol has given up some of its share of that growth. The level of impact in 2025 ranges from approximately 0.2 mppa to around 1.2 mppa.
- 0.13 A significant proportion of those passengers lost by Bristol Airport have a surface origin or destination in Wales but it should also be noted that the change results in a significant number of South West resident passengers being lost from Bristol Airport.

- 0.14 We have also considered the potential impacts of restricting devolution of APD to direct long haul flights only, as proposed by the Silk Commission. Devolving APD to Wales could also have a substantial impact on Bristol's long haul ambitions. The development of routes such as New York or a Middle East hub would be pushed back by a minimum of two to three years and in the highest impact case could be pushed back beyond 2025. This is assuming that airlines choose to ever bring these routes forward if they become established at Cardiff. This analysis has been used to develop the fifth scenario described above, which assumes that direct long haul APD is devolved to Wales and removed, which results in a loss in passenger traffic at Bristol of around 0.4 million by 2025.
- 0.15 In total, annual losses in GVA in the South West range between £10 million and £38 million in 2015, rising to between £24 million and £122 million in 2030. Employment losses range between 140 jobs and 537 jobs in 2015, rising to between 306 jobs and 1,569 jobs in 2025.
- 0.16 At an HM Treasury standard discount rate of 3.5%, the present value of GVA losses between 2014 and 2025 is as follows:
- 50% Reduction – £170 million;
  - 100% Reduction – £353 million;
  - High Impact 50% Reduction – £448 million;
  - High impact 100% Reduction - £843 million;
  - Direct Long Haul 100% Reduction - £190 million.
- 0.17 This assessment of the GVA losses over the forecast period helps to articulate the significant ongoing effect that the lost traffic will have on the economy of the South West.
- 0.18 Ultimately, these changes could lead to a significant loss in APD revenue. Annual losses from complete devolution of APD could range between £10 million and £23 million depending on the year and the scenario. If direct long haul only is devolved, the impact on APD revenues would be between around £2 million and £15 million per annum.



# 1 INTRODUCTION

## Background

- 1.1 In October 2014, Bristol Airport commissioned York Aviation to provide an overview assessment of the potential impact on the airport and the South West economy of devolution of Air Passenger Duty (APD) to Wales. This followed the agreement of a cross-party motion in the National Assembly setting out proposals for further devolution in Wales, including control of APD on direct long-haul flights.
- 1.2 Devolution of APD on direct long-haul flights was initially included in recommendations made by the Silk Commission in its first report in November 2012. While the recommendation relating to APD was rejected by the UK Government in November 2013, the Welsh Government has continued to call for these powers.
- 1.3 Since this report was commissioned, the Smith Commission has published its recommendations for further devolution of powers to the Scottish Parliament, including a proposal which would give the Scottish Government the power to charge tax on air passengers leaving Scottish airports – or abolish such a tax, as is the stated intention of the current administration.
- 1.4 Carwyn Jones, the First Minister of Wales, reacted to the publication of the Smith Commission report by swiftly calling for the same powers to be devolved to Wales, including Air Passenger Duty, stating that “whatever has been offered to Scotland today must also be offered to Wales”. He went on to say “we would certainly expect to be offered full control over...Air Passenger Duty”.
- 1.5 Bristol Airport believes that if APD is devolved across all bands, then the Welsh Government will choose to either abolish or substantially reduce the tax, thereby potentially making travel via airports in Wales cheaper, other things being equal, and potentially more attractive to passengers than nearby airports where the tax remains as currently, such as Bristol. The result will be a position which is anti-competitive, where competitors are not operating from a level playing field.
- 1.6 Even if restricted to direct long haul flights, as initially recommended by the Silk Commission, Bristol Airport contends that devolution of APD would have a significant impact on its existing route network and future development plans, as well as reducing the tax-take for the Treasury.

1.7 Bristol Airport believes that it will be particularly disadvantaged by this effect given its close competitive relationship with Cardiff Airport, the only airport in Wales with significant commercial services. The two airports are only around 60 miles or 75 minutes drive apart. In consequence their catchment areas overlap significantly (see Figure 1.1).

Figure 1.1: 90-minute Drive Time Zones for Bristol and Cardiff Airports



Source: Microsoft MapPoint.

1.8 Ultimately, Bristol Airport believes that the competitive distortion resulting from the devolution of APD will result in the airport losing traffic as passengers choose to travel via Cardiff instead and that ultimately this will knock on to the South West economy in terms of reduced economic activity and employment.

## Our Approach

- 1.9 In order to consider this issue, York Aviation has developed a simple gravity model to assess how changes in air fares at Cardiff brought about by changes in APD might affect the distribution of demand between the two airports. The model uses an attraction factor based around the observed fares charged at both airports for domestic, Band A and Band B plus destinations taken from the CAA Passenger Survey 2012 and a weighting to reflect the current relative attractiveness of the two airports. This latter element recognises that, at present Bristol offers a substantially wider range of services than Cardiff, often at higher frequencies, and is hence more attractive to passengers, particularly where they are relatively indifferent in terms of final destination. The distance decay factor within the model is determined by the travel time between the relevant airport and the surface origin or destination district for the passenger. The level of demand within each district has been determined using the CAA Passenger Survey 2012. These demand levels have been updated to 2014 using CAA Statistics and information from Bristol Airport.
- 1.10 In addition to the effect brought about by the change in fare, we have also considered the second round effects resulting from the relative change in size between the two airports. As discussed above, Bristol is a substantially larger airport than Cardiff and hence offers a much greater range of services and hence is generally attractive. However, as both demand shifts between Bristol and Cardiff with a reduction in prices at Cardiff and as Cardiff benefits from a general stimulatory effect brought about by a lowering of the average cost of flying within the market<sup>1</sup>, we would expect the balance in this relationship to change.
- 1.11 Cardiff will experience a boost in growth, while Bristol will experience a reduction, with the result that Cardiff will become relatively more attractive over time as it takes market share and expands its services as it does so. For the purposes of this analysis, we have assumed that this will mirror the extent to which both perform above or below what might be expected without any change in the APD situation. For Bristol this base case forecast has been provided by the airport company, while for Cardiff we have it will grow at the same rate as Bristol. This effect is then applied as a weighting to the attraction factor in the model over time.

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<sup>1</sup> We have estimated this stimulatory effect based on the change in the average fare observed at Cardiff over time when a reduction in APD is applied combined with a price elasticity of -0.6, which is the overall market price elasticity for the UK identified by the Department for Transport in its UK Aviation Forecasts for 2013.

1.12 Traffic impacts at Bristol from changes to APD rates at Cardiff have been calculated against the base case forecast provided by the airport. We have essentially considered two potential scenarios for APD in Wales:

- a 50% reduction in current APD rates in Wales;
- a 100% reduction in current APD rates in Wales.

1.13 However, we have also undertaken a sensitivity test that represents a potential high case impact on Bristol. This sensitivity test increases the price elasticity of passengers and hence increases the stimulation effect experienced by Cardiff Airport following the relevant reduction in APD. This is designed to reflect the likely 'lumpy' nature of growth at Cardiff following devolution of APD. Cardiff is a relatively small airport handling just over 1 million passengers per annum. One quite likely effect of a reduction in APD would be for a low fares airline to base additional aircraft at the airport. This would be likely to result in a significant 'one-off' jump in passenger numbers, resulting in a large percentage increase in throughput. In general, price elasticities reflect long term relationships and they are not always particularly effective at estimating the impacts of large short term changes, such as that described. It should also be recognised that Cardiff will take traffic from other airports in the UK as well, which will boost its growth further, primarily Birmingham. We, therefore, believe that it is prudent in this case to consider a position in which short term growth at Cardiff significantly outstrips what might be suggested by the long term elasticity. We have chosen to do this in this case by increasing the sensitivity to price in the model, such that the initial impact at Cardiff is approximately equal to three new based low fares aircraft. In our view significant weight should be given to these High Case results.

1.14 This ultimately leads to four traffic scenarios being tested:

- 50% Reduction in APD;
- 100% Reduction in APD;
- High Impact 50% Reduction in APD;
- High Impact 100% Reduction in APD.

- 1.15 This analysis has also then be used to consider the specific impacts that devolving APD might have on long haul route development at Bristol Airport, both in terms of the volumes relating to the existing market structure at the airport but also, importantly, in terms of the airport's potential to develop long haul services in the future. This has resulted in the identification of fifth scenario, 100% Reduction Direct Long Haul APD, which considers the impact of devolving direct long haul APD to Wales. This is an assumption driven scenario that assumes Cardiff rather than Bristol develops anticipated long haul services to New York and the Middle East.
- 1.16 We have estimated the operational economic impacts of devolving APD to Wales based on the last economic impact study of the airport undertaken by Roger Tym and Partners in 2008. While this work was undertaken some time ago, we believe that the content provides a reasonable basis for considering the comparative effects of different scenarios in broad terms.
- 1.17 We have also considered the impact of changes in demand patterns between Bristol and Cardiff on inbound tourism in to the South West and the consequent effect on GVA and employment in the region. These estimates have been based on publicly available data from the International Passenger Survey, the Annual Business Survey, NOMIS and the ECON I input output tables for the South West.
- 1.18 We have not considered potential economic impacts relating to trade and investment effects within the scope of this analysis. Hence, it would seem reasonable to suggest that the estimates of economic impact described here are conservative.

## Structure of this Report

- 1.19 This report is organised in to the following sections:
- in **Section 2** we set out the results of our analysis of the traffic impact on Bristol Airport from devolution of APD;
  - in **Section 3** we present our estimates of the economic impact of changes in the APD regime on the South West economy.

## 2 TRAFFIC IMPACT ON BRISTOL AIRPORT

### Introduction

2.1 In this section, we set out our analysis of the impact on traffic at Bristol Airport from the devolution of APD in Wales. We have also considered here if there are lessons that can be drawn from the only relevant current example of neighbouring airports with different passenger tax rates, Belfast and Dublin.

### Modelled Traffic Impact Results

2.2 In **Table 2.1** below we have set out the traffic impacts at Bristol Airport of each of our four modelled scenarios compared to the forecast Base Case provided by the airport company.

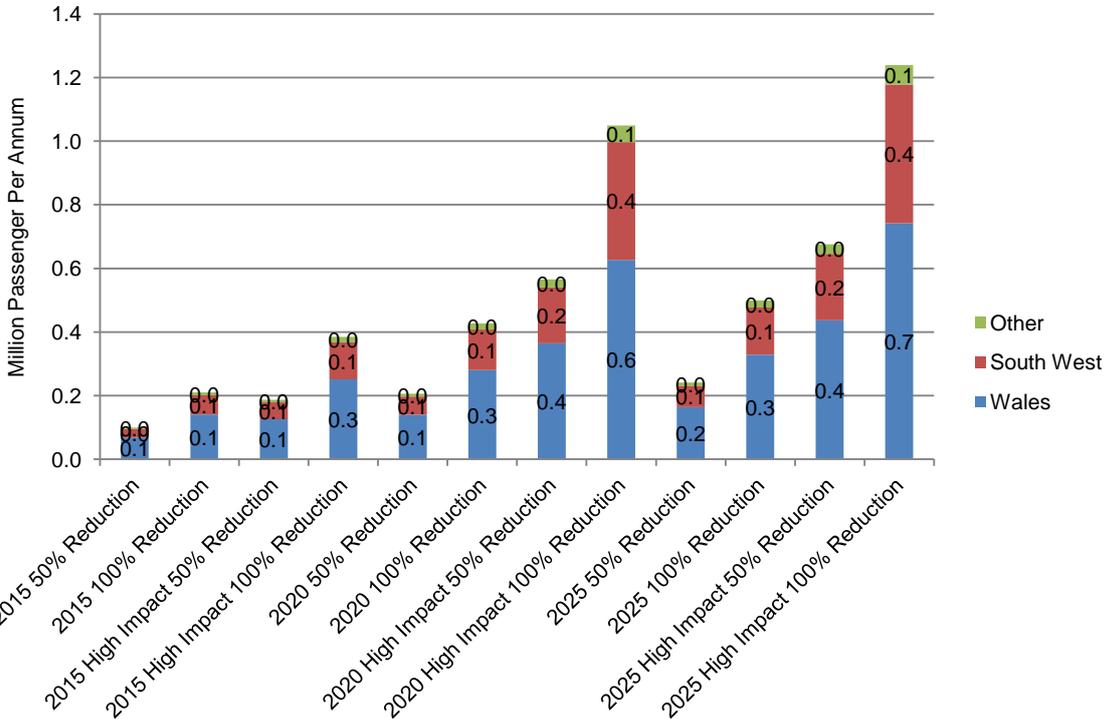
**Table 2.1: Traffic Impacts of APD Devolution vs. Base Case (millions)**

	2014	2015	2016	2017	2018	2019	2020	2025
<i>Base Case</i>								
Domestic	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.3
International	5.2	5.5	5.6	5.9	6.1	6.2	6.5	7.8
Total	6.3	6.6	6.7	7.0	7.2	7.4	7.7	9.1
<i>50% Reduction</i>								
Domestic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
International	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
Total	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
<i>100% Reduction</i>								
Domestic	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
International	0.0	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4
Total	0.0	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4	-0.5
<i>High Impact 50% Reduction</i>								
Domestic	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
International	0.0	-0.1	-0.3	-0.4	-0.4	-0.4	-0.5	-0.6
Total	0.0	-0.2	-0.3	-0.4	-0.5	-0.5	-0.6	-0.7
<i>High Impact 100% Reduction</i>								
Domestic	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
International	0.0	-0.3	-0.6	-0.7	-0.8	-0.8	-0.9	-1.0
Total	0.0	-0.4	-0.7	-0.9	-0.9	-1.0	-1.0	-1.2

Source: York Aviation.

- 2.3 There is a reasonably significant range in potential impacts depending on the level of the APD reduction in Wales and the assumptions regarding the stimulatory effect of the change on Cardiff Airport. It is also notable that the level of impact builds over time. As Cardiff's competitive position is strengthened, its relative attractiveness builds and consequently it is able to continue capturing market share from Bristol even though the APD change is a one off event in 2015. A new equilibrium between the two airports is reached in around 2019, albeit numerical losses against the Base Case continue to grow as the market as a whole grows.
- 2.4 In 2015, the first year of an assumed change in APD, the impact ranges from around 0.1 million passengers per annum (mppa) in the 50% Reduction scenario to around 0.4 million mppa in the High Impact 100% Reduction scenario. This represents a loss of between 1.5% and 6.2% of Base Case traffic. By 2020, the low end impact is 0.2 mppa in the 50% Reduction scenario, the high end impact has reached around 1.0 mppa in the High Impact 100% reduction scenario. In both bases the percentage impact compared to the Base Case has increased markedly as Cardiff's improved competitive position has taken hold. The 50% Reduction scenario represents a fall in traffic of around 2.7% and the High Impact 100% Reduction scenario equates to an impact of around 15.7%.
- 2.5 By the end of the forecast period, 2025, the percentage impact of the traffic scenarios has stabilised but the impact on passengers has continued to grow as the market as a whole has grown and Bristol has given up some of its share of that growth. The level of impact in 2025 ranges from approximately 0.2 mppa to around 1.2 mppa.
- 2.6 At this point, it is worth revisiting the potential likelihood of occurrence of the High Impact scenarios. The primary driver of the inclusion of these scenarios is the potential for a strong supply side reaction at Cardiff that cannot adequately be replicated via the use of the long term price elasticity included within the main scenarios. We have broadly allowed for the basing of an additional three aircraft by a low fares airline at Cardiff as an example of such a supply side reaction within our analysis. In our view this is an entirely plausible scenario, albeit that the aircraft may in reality be based at Cardiff over time (perhaps two years) rather than immediately. However, equally, commitment to a base at Cardiff might also result in more non-based flying to the airport in the interim. Overall, therefore, we believe that the High Case scenarios should be given significant weight when the results of this analysis are being considered.
- 2.7 In **Figure 2.1** we have considered the distribution of passenger impacts in terms of the surface origins and destinations of passengers at Bristol Airport.

Figure 2.1: Traffic Impact by Surface Origin / Destination of Passengers



Source: York Aviation.

2.8 This demonstrates that a significant proportion of those passengers lost by Bristol Airport have a surface origin or destination in Wales. The proportion varies slightly overtime and across scenarios but is generally around two thirds. This reflects the airport’s ability on a ‘level playing field’ to provide services to Welsh consumers<sup>2</sup>.

2.9 It should also be noted that the change results in a significant number of South West resident passengers being lost from Bristol Airport, an area which is very much core to the airport’s catchment area.

2.10 Losses from other areas of the airport’s catchment are generally small.

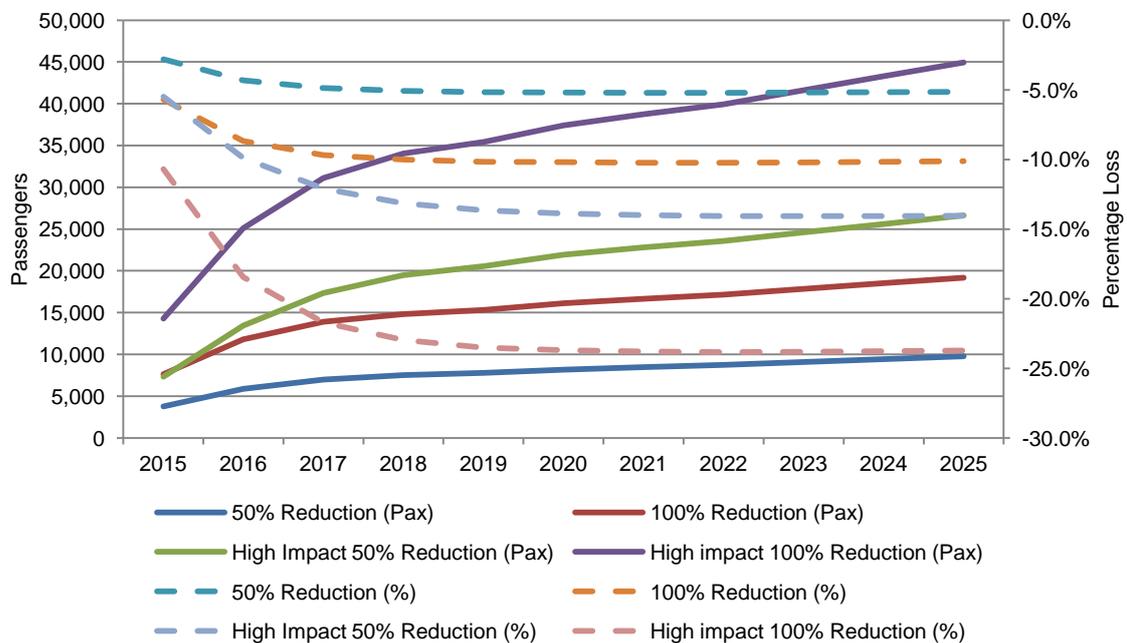
<sup>2</sup> We have not considered in detail within the scope of this analysis the likely nature of this traffic. However, we would expect these passengers to primarily be outbound Welsh passengers. Inbound passengers are less likely to be using an airport outside of their intended destination region.

## Impact on Long Haul Traffic at Bristol Airport

2.11 Given the Welsh Government’s current position that it would only be seeking change APD in relation to long haul services, we have below considered the specific impact of our scenarios on travellers to Band B, C or D destinations<sup>3</sup>.

2.12 At the outset it should be said that the headline impact on long haul passengers at Bristol given the current nature of operations is relatively limited. Bristol does not currently offer direct long haul services (although they have existed in the recent past, e.g. a daily New York service operated from 2005-2010 and passenger numbers travelling via hubs are a relatively small percentage of Bristol’s total traffic. This clearly limits the volume impact of any change within the current route structure at the airport. However, it is noticeable that the impact in percentage terms on this group of passengers is relatively high (see **Figure 2.1**).

**Figure 2.1: Impact on Long Haul Passengers at Bristol Airport**



Source: York Aviation.

2.13 The greater concern is perhaps therefore the potential impact of the changes on Bristol Airport’s aspirations to develop long haul services. If some of the percentages losses observed were to be replicated on a route level, it would seriously damage Bristol’s chances of securing routes such as New York or a Middle East hub.

<sup>3</sup> These Bands will be amalgamated from 2015.

**Impact of Devolving APD to Wales**

2.14 In **Table 2.2** we have demonstrated this point in relation to a seasonal New York service operating with a Boeing 757 and a Middle East service using a 250 seat aircraft.

2.15 Forecasts for both routes have been provided by the Airport. New York is assumed to start in 2016 and the Middle East service in 2018, both at a sustainable load factor for the airline. In both cases the first year forecast assumes a part year operation. We then consider the impact that devolution of APD might have on the start point for such a service, working from the first full year of operation.

2.16 For a service to start following devolution of APD, the route must attain a similar passenger volumes to that observed at the original start point following growth of the underlying market in line with Department for Transport market growth rates. The results of this analysis are set out in **Table 2.2**.

**Table 2.2: Impact on Potential Long Haul Routes (000s)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>New York</b>											
Base		45	100	102	104	182	191	201	211	221	232
50% Red.						101	103	105	106	182	185
100% Red.									101	103	105
High 50% Red.										100	102
High 100% Red.											Threshold not reached before 2025
<b>Middle East</b>											
Base				91	182	187	192	197	202	207	212
50% Red.							182	186	191	196	201
100% Red.										186	191
High 50% Red.											182
High 100% Red.											Threshold not reached before 2025

Source: York Aviation.

2.17 In relation to the New York service, the mature performance is pushed back by a minimum of three years and in some scenarios substantially longer. In fact in relation to the High Impact 100% reduction scenario, the viability threshold for the route is not reached before 2025.

2.18 A Middle East route is similarly affected. With the start date for the route pushed back by at least two years and in the High Impact 100% reduction scenario, the viability threshold for the route is again not reached before 2025.

2.19 This suggests that devolving APD to Wales could have a substantial impact on Bristol’s long haul ambitions. It should also not be forgotten that airline strategy may also play a part here which is not fully articulated by the numeric analysis. Cardiff is likely to try to develop similar long haul routes and, if successful, it is quite possible that airlines would simply never start the same routes from Bristol, perhaps feeling that they can serve the relevant market from Cardiff instead.

2.20 This analysis has resulted in the development of a fifth, assumption driven scenario, which is designed to reflect the devolution of long haul APD to Wales. In this scenario it is assumed that both of the above routes are initiated at Cardiff rather than Bristol during the forecast period, broadly in line with the impact seen from a 100% reduction in APD. The effect on the total traffic forecast for Bristol Airport is shown in **Table 2.3** compared to the base case.

**Table 2.3: Traffic Impacts of Devolution of Direct Long Haul APD vs. Base Case (millions)**

	2014	2015	2016	2017	2018	2019	2020	2025
<i>Base Case</i>								
Domestic	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.3
International	5.2	5.5	5.6	5.9	6.1	6.2	6.5	7.8
Total	6.3	6.6	6.7	7.0	7.2	7.4	7.7	9.1
<i>100% Reduction in Direct Long Haul APD</i>								
Domestic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
International	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.4
Total	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.4

### Impact on the Route Network at Bristol Airport

2.21 A further consideration in addition to the pure loss of traffic at Bristol Airport is the long term damage to the airport’s route network that might be done by the loss of demand to Cardiff.

2.22 This is a very difficult thing to predict as it will be a function of both performance of individual routes and also the network fit of particular routes within an airline offer at Bristol. However, we have tried to make a high level estimate of the potential impact based on some assumptions around airline behaviour.

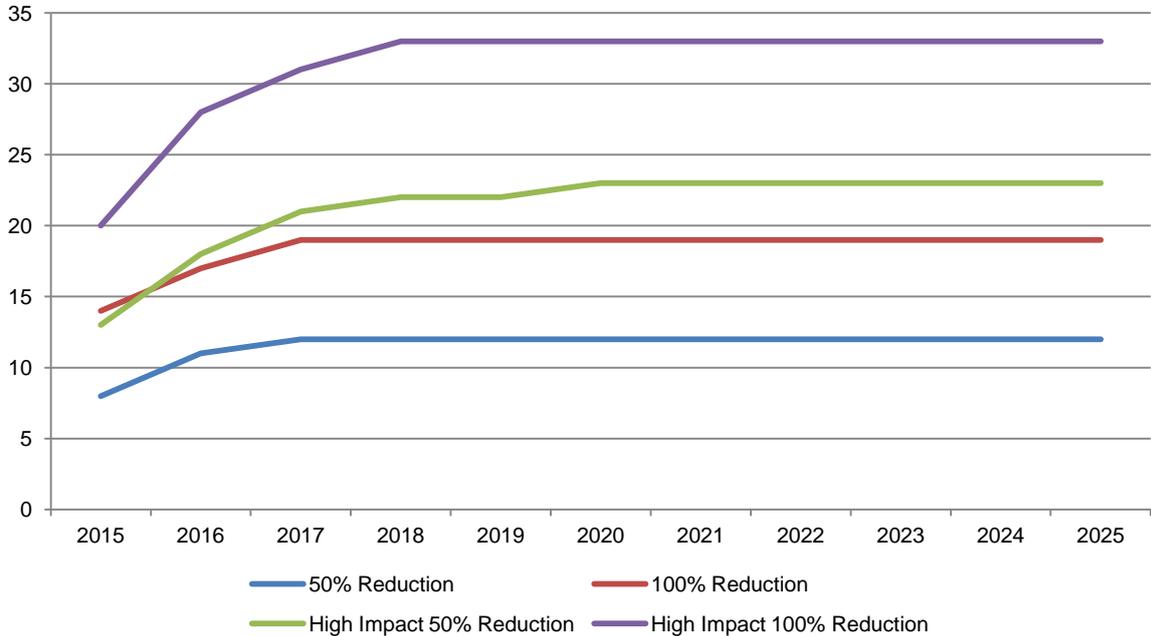
2.23 Crudely, there are two options for airlines facing a reduction in demand at Bristol Airport:

- to reduce the number of routes served;
- to reduce capacity on existing routes.

2.24 In reality, of course, the reaction is likely to be somewhere in between. However, for the purposes of our analysis we have assumed that airlines are prepared to split the cut capacity across the top 15 routes at Bristol (up to a maximum of 25%) and across the smallest routes by seat capacity at Bristol as required to meet the percentage fall in demand (smaller routes are assumed to be more vulnerable). This essentially produces a blended effect across the two options described.

2.25 In 2014, OAG identifies 96 routes from Bristol with more than 1,000 one way seats and this network forms the basis for calculating the number of routes that might be lost. The results for our scenarios are set out in **Figure 2.2**.

**Figure 2.2: Number of Routes Lost at Bristol Airport**



Source: York Aviation.

2.26 In all cases the number of routes lost builds over time but stabilises in the longer term. Losses for each scenario finally reach around:

- 50% Reduction – 12 routes;
- 100% Reduction – 19 routes;

- High Impact 50% Reduction – 23 routes;
- High Impact 100% Reduction – 33 routes.

## **Parallels with the Northern Ireland Experience**

- 2.27 Currently, the only potential benchmark for considering traffic effects from a devolution of APD to Wales is the situation in Northern Ireland with respect to Dublin Airport.
- 2.28 Northern Ireland's two main airports, Belfast International and Belfast City, are subject to current rates of APD for short haul travel and for indirect long haul travel. Since the completion of the M1 motorway, the two airports have competed increasingly with Dublin Airport in the Republic of Ireland, which until recently was subject to the much lower Irish Travel Tax, which was introduced in 2009, and is now not subject to any passenger taxes following the abolition of the Irish Travel Tax in April 2014.
- 2.29 Dublin is an important and growing influence in the Northern Ireland market. DAA estimate that around 570,000 Northern Ireland resident passengers used Dublin Airport in 2013, up from around 520,000 in 2012. Clearly, this is not solely about APD. However, it does demonstrate that passengers are prepared to travel to access a 'good deal' and there are certainly parts of the airline community that believe that the difference in taxes is a significant factor in airline decisions. The most obvious example of this is the threat by United Airlines to withdraw its Belfast International to New York service because it believed APD was making the service uncompetitive compared to the offer at Dublin. This ultimately led to the removal of APD from direct long haul services from Northern Ireland airports.
- 2.30 The parallels with a potential situation between Bristol and Cardiff are clear, albeit that there are important differences, some of which are likely to increase impact and others of which will reduce impact.
- 2.31 The primary factor that will potentially increase the level of impact is the distance between Bristol and Cardiff compared to that between Belfast and Dublin. Bristol and Cardiff airports are around 75 minutes apart while the time between the two city centres is closer to 55 minutes. In comparison, Belfast International Airport is around 105 minutes from Dublin Airport and the city centres are around 115 minutes apart. Bristol and Cardiff are simply closer competitors.

- 2.32 On the other side, Bristol is much larger an airport than Cardiff currently, while the Belfast airports combined are substantially smaller than Dublin. This means that Bristol is likely to be insulated from the effects of a change in prices at Cardiff to some degree as it will continue to offer a significantly greater range of services. This means that there will be significant parts of the market where Cardiff is not in direct competition with Bristol.
- 2.33 Overall, in our view, the situation in Northern Ireland and the experience of recent years suggests that devolving APD to Wales is a very real competitive threat to Bristol. Passengers are prepared to travel significant distances for a 'good deal' and there is certainly reason to believe that the existence or otherwise of a passenger tax is an influence on airlines' decision making.

### 3 IMPACT ON THE SOUTH WEST ECONOMY

#### Introduction

- 3.1 In this section, we consider the potential economic impact on the South West economy. Our assessment builds on the four traffic impact scenarios described above and estimates the following impacts:
- Operational GVA and employment – we have used previous research undertaken by Roger Tym and Partners in 2008 to make an estimate of the GVA and employment impact stemming from lost traffic at Bristol on direct activities (organisations wholly or largely involved in the provision of air services at or near Bristol Airport), indirect activities (supply chain) and induced activities (wages and salaries expenditure effects);
  - Tourism GVA and employment – we have used a range of published data (described in Section 1) to estimate the impact of the changes in passenger numbers on tourism expenditure and then on to the tourism industry in the South West in terms of the GVA and employment it supports<sup>4</sup>.
- 3.2 We would highlight again that we have not considered impacts relating to trade and investment effects within the scope of this work, given the highly complex nature of these relationships. We would therefore suggest that it is reasonable to say that the estimates of impact here should be viewed as conservative.

#### GVA and Employment Impacts

- 3.3 In **Table 3.1** we have set out our estimates of the GVA and employment impacts on the South West economy.
- 3.4 The key driver of losses is the operational impacts. The losses in GVA and employment in the lowest impact scenario (50% Reduction) range between 72 jobs and £7 million in GVA in 2015, rising to 142 jobs and £16 million in GVA in 2025. In the highest impact scenario (High Impact 100% Reduction) operational job losses rise from 276 in 2015 to 727 in 2025, with corresponding GVA losses of £25 million in 2015 rising to £80 million in 2025.

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<sup>4</sup> This assessment again includes indirect and induced effects in the South West economy.

## Impact of Devolving APD to Wales

**Table 3.1: Economic Impacts of Devolving APD to Wales in the South West**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<i>Operational Employment (Direct, Indirect &amp; Induced)</i>												
50% Reduction	0	-72	-106	-122	-127	-131	-134	-137	-137	-139	-141	-142
100% Reduction	0	-151	-223	-254	-264	-271	-277	-283	-285	-288	-291	-293
High Impact 50% Reduction	0	-134	-241	-305	-336	-353	-367	-377	-381	-387	-392	-397
High impact 100% Reduction	0	-276	-486	-595	-639	-661	-680	-697	-701	-711	-719	-727
Direct Long Haul 100% Red.	0	0	-32	-69	-69	-69	-118	-237	-241	-246	-250	-255
<i>Operational GVA (Direct, Indirect &amp; Induced) (£m)</i>												
50% Reduction	£0	-£7	-£10	-£11	-£12	-£13	-£13	-£14	-£14	-£15	-£15	-£16
100% Reduction	£0	-£14	-£21	-£24	-£25	-£27	-£28	-£29	-£30	-£31	-£32	-£32
High Impact 50% Reduction	£0	-£12	-£22	-£29	-£32	-£35	-£37	-£39	-£40	-£41	-£43	-£44
High impact 100% Reduction	£0	-£25	-£45	-£56	-£61	-£65	-£68	-£71	-£73	-£76	-£78	-£80
Direct Long Haul 100% Red.	£0	£0	-£3	-£6	-£7	-£7	-£12	-£24	-£25	-£26	-£27	-£28
<i>Tourism Employment (Direct, Indirect &amp; Induced)</i>												
50% Reduction	0	-68	-103	-120	-128	-134	-140	-146	-150	-155	-159	-164
100% Reduction	0	-143	-216	-251	-266	-278	-290	-303	-310	-320	-330	-339
High Impact 50% Reduction	0	-127	-234	-302	-339	-363	-385	-403	-415	-430	-445	-459
High impact 100% Reduction	0	-262	-470	-587	-643	-679	-713	-745	-764	-790	-816	-842
Direct Long Haul 100% Red.	0	0	-31	-68	-69	-71	-124	-253	-263	-273	-284	-295
<i>Tourism GVA (Direct, Indirect &amp; Induced) (£m)</i>												
50% Reduction	£0	-£3	-£5	-£6	-£6	-£7	-£7	-£7	-£7	-£8	-£8	-£8
100% Reduction	£0	-£7	-£11	-£12	-£13	-£14	-£14	-£15	-£15	-£16	-£16	-£17
High Impact 50% Reduction	£0	-£6	-£11	-£15	-£17	-£18	-£19	-£20	-£20	-£21	-£22	-£22
High impact 100% Reduction	£0	-£13	-£23	-£29	-£31	-£33	-£35	-£36	-£37	-£39	-£40	-£41
Direct Long Haul 100% Red.	£0	£0	-£1	-£3	-£3	-£3	-£6	-£12	-£13	-£13	-£14	-£14

**Table 3.1: Economic Impacts of Devolving APD to Wales in the South West**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<i>Total Employment (Direct, Indirect &amp; Induced)</i>												
50% Reduction	0	-140	-209	-242	-255	-265	-274	-283	-287	-294	-300	-306
100% Reduction	0	-293	-438	-505	-530	-549	-567	-586	-595	-608	-621	-632
High Impact 50% Reduction	0	-261	-475	-607	-675	-717	-751	-781	-795	-817	-837	-856
High impact 100% Reduction	0	-537	-956	-1,182	-1,282	-1,341	-1,393	-1,441	-1,464	-1,501	-1,536	-1,569
Direct Long Haul 100% Red.	0	0	-62	-137	-138	-139	-242	-490	-504	-519	-534	-549
<i>Total GVA (Direct, Indirect &amp; Induced) (£m)</i>												
50% Reduction	£0	-£10	-£15	-£17	-£19	-£19	-£20	-£21	-£22	-£22	-£23	-£24
100% Reduction	£0	-£21	-£31	-£36	-£38	-£40	-£42	-£44	-£45	-£46	-£48	-£49
High Impact 50% Reduction	£0	-£18	-£34	-£44	-£49	-£52	-£56	-£58	-£60	-£62	-£64	-£66
High impact 100% Reduction	£0	-£38	-£68	-£85	-£93	-£98	-£103	-£108	-£110	-£114	-£118	-£122
Direct Long Haul 100% Red.	£0	£0	-£4	-£10	-£10	-£10	-£18	-£37	-£38	-£39	-£41	-£43

Source: York Aviation.

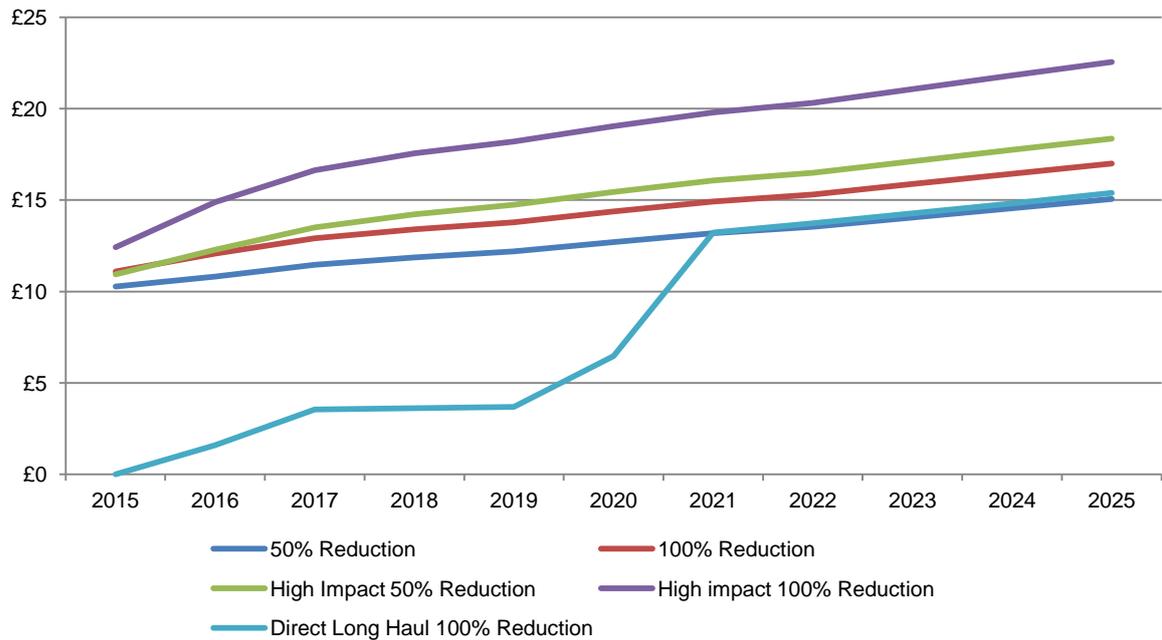
- 3.5 The losses in the tourism sector in the South West, while not as large, are still significant. In 2015, losses range between 68 jobs and 262 jobs and £3 million and £13 million in GVA. By 2030, losses have grown to between £8 million and £41 million in GVA and 164 jobs and 842 jobs.
- 3.6 In total, annual losses in GVA in the South West range between £10 million and £38 million in 2015, rising to between £24 million and £122 million in 2030. Employment losses range between 140 jobs and 537 jobs in 2015, rising to between 306 jobs and 1,569 jobs in 2025.
- 3.7 At an HM Treasury standard discount rate of 3.5%, the present value of GVA losses between 2014 and 2025 is as follows:
- 50% Reduction – £170 million;
  - 100% Reduction – £353 million;
  - High Impact 50% Reduction – £448 million;
  - High impact 100% Reduction - £843 million;
  - Direct Long Haul 100% Reduction - £190 million.
- 3.8 This assessment of the GVA losses over the forecast period helps to articulate the significant ongoing effect that the lost traffic will have on the economy of the South West.

### **Impact on UK Government Tax Revenue**

- 3.9 In addition to considering the impact on the South West economy, we have also made a broad estimate of the lost APD revenue to the UK from APD devolution to Wales. This would most likely be borne by the Welsh Government.
- 3.10 This figure consists of APD revenue forgone through passengers who would have used Cardiff in the event of no change being made no longer being subject to APD and passengers lost from Bristol Airport, as the primary English competitor to Cardiff, who switch out of APD jurisdiction to Cardiff in each scenario. It should be recognised that this figure is likely to be conservative as there will be some abstraction of passengers from other English airports that fall outside of the scope of this work.

3.11 The results of this analysis are set out in **Figure 3.1**. This suggests that annual losses from complete devolution of APD could range between £10 million and £23 million depending on the year and the scenario. If direct long haul only is devolved, the impact on APD revenues would be between around £2 million and £15 million per annum.

**Figure 3.1: Lost APD Revenue from Devolution to Wales (£m)**



Source: York Aviation.