Competition & Markets Authority

Arriva Rail North and the Northern rail franchise

A report on the completed acquisition by Arriva Rail North Limited of the Northern rail franchise

2 November 2016

Website: www.gov.uk/cma

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The Competition and Markets Authority has excluded from this published version of the report information which the Inquiry Group considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [✄]. Some numbers have been replaced by a range. These are shown in square brackets.

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Summary

Background

1. On 20 May 2016, the Competition and Markets Authority (CMA), in the exercise of its duty under section 22(1) of the Enterprise Act 2002 (the Act), referred the completed acquisition by Arriva Rail North Limited (ARN), a wholly-owned subsidiary of Arriva plc (Arriva), of the Northern rail franchise (the Northern Franchise) (altogether the Merger) for further investigation and report by a group of CMA panel members (inquiry group). Throughout this document, where appropriate, we refer to Arriva, ARN and the Northern Franchise collectively as 'the Parties'.

2. In exercise of its duty under section 35(1) of the Act, the CMA must decide:

   (a) whether a relevant merger situation has been created; and

   (b) if so, whether the creation of that situation has resulted or may be expected to result in a substantial lessening of competition (SLC) within any market or markets in the United Kingdom (UK) for goods or services.

The rail and bus sectors in Great Britain

3. Franchised train operating companies (franchised TOCs) operate passenger rail franchises and are awarded the right to run specific services within a specified area for a specific period of time, in return for the right to charge fares. Where appropriate, franchised TOCs receive financial support from the franchising authority, which is currently the Rail Group in the Department for Transport (DfT).[1] There are currently 16 franchises operating in England and Wales and two in Scotland.

4. The rights and obligations of franchised TOCs are specified through a Train Service Requirement (TSR) as part of the franchise agreement negotiated between the franchising authority and the franchisee. The TSR includes obligations on franchised TOCs such as the number of daily calls at stations and the timing of first and last trains. Each franchise has its own specific TSR and the degree of specification by government varies by franchise.

5. Competition 'for' the market, ie for the award of a rail franchise, is currently the principal form of competition in passenger rail services and franchised services cover 99% of passenger rail miles in Great Britain.

[1] Transport Scotland is the franchising authority for the ScotRail and Caledonian Sleeper franchises. There are also specific arrangements in place for London Overground and Merseyrail.

6. There is also a degree of competition 'in' the market (known as 'on-rail' competition) on certain parts of the rail network where different franchised TOCs run services on overlapping or parallel flows. The extent of overlapping and parallel franchises has reduced over time.

7. On-rail competition also takes place where open access operators (OAOs) operate passenger rail services on a commercial basis on routes authorised by the Office of Rail and Road (ORR) for a specified time. OAOs compete with franchised TOCs where their services overlap. OAOs currently account for less than 1% of passenger miles in Great Britain.

8. Arriva also operates a wide range of bus services throughout much of the Northern Franchise area. Buses are the most widely used form of public transport in England. There were around 5.2 billion bus journeys made in Great Britain in 2014/15, with over half being in London. This generated a total of £3.3 billion from passenger fares.[2]

9. The provision of local bus services is now largely in private ownership since the industry was deregulated in 1986. The five largest bus operators in England are Stagecoach (19%), Arriva (17%), FirstGroup (13%), Go-Ahead (13%) and National Express (5%). Other large operators of local bus services account for 22% of services in England, with smaller operators accounting for the remaining 12%.[3]

10. Local transport authorities (LTAs) review the network of commercially registered services, identify additional services which they consider to be socially necessary and then seek providers through a tendering process. Outside London, approximately 20% of bus services are financially supported and tendered by LTAs.

The Parties and the transaction

11. Arriva is part of Deutsche Bahn AG and is one of the largest providers of passenger transport in Europe, operating 2.2 billion passenger journeys per year across 14 European countries.[4] Arriva's revenue in 2015 was €4.8 billion (£3.5 billion).[5] In the UK, Arriva provides passenger rail services (both heavy and light rail), bus services, non-emergency patient transport services and specialist education transport services.

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[2] DfT, *Transport Statistics Great Britain 2015*.
[3] DfT (2014), *Annual bus statistics: England 2013/14*.
[4] Deutsche Bahn AG is 100% owned by the Federal Republic of Germany.
[5] Deutsche Bahn (2015), Integrated Report, p137. All currency conversions from euros are at the average rate for 2015 of €1=£0.72584 (Deutsche Bahn (2015), Integrated Report, p201).

12. Arriva is currently operated through three divisions, each with its own management teams and divisional directors: (a) Arriva UK Trains; (b) Arriva UK Bus; and (c) Mainland Europe.

13. ARN is a wholly-owned subsidiary of Arriva UK Trains Ltd created for the purpose of bidding for, and operating, the Northern Franchise. In addition to operating the Northern Franchise, Arriva UK Trains operates the Arriva Trains Wales (ATW), Chiltern Railway Company Limited (Chiltern Railways) and CrossCountry Trains Limited (CrossCountry) franchises.[6] It also operates open access services through Grand Central Railway Company Limited (Grand Central).[7]

14. On 9 December 2015, the DfT announced that ARN was the successful bidder for the Northern Franchise. On 22 December 2015, the Secretary of State for Transport and ARN entered into a franchise agreement and associated agreements confirming the award of the Northern Franchise to ARN. The operation of the Northern Franchise commenced on 1 April 2016 for a term of nine years (subject to a possible extension of up to one year).

15. The franchise agreement associated with the Northern Franchise includes significant improvements in passenger services, including at least 120 new-build carriages for use on non-electrified routes and the modernisation of all remaining Northern Franchise trains, the phasing out of older 'Pacer' units, additional train services, longer trains, investment in stations, the introduction of free Wi-Fi and new 'Northern Connect' services between a number of northern cities.

Jurisdiction

16. We considered whether a 'relevant merger situation' under section 23 of the Act has been created. Section 23 of the Act provides that a relevant merger situation has been created if two or more enterprises have ceased to be distinct and either the 'turnover test' or 'share of supply test' is satisfied.

17. The award of a rail franchise constitutes an acquisition of control of an enterprise by virtue of section 66(3) of the Railways Act 1993. The Northern Franchise and Arriva have therefore ceased to be distinct.

18. The turnover test in section 23(1)b of the Act is satisfied where the value of the turnover in the UK of the enterprise being taken over exceeds £70 million.

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[6] Arriva UK Rail also operates two rail concessions, namely DB Regio Tyne and Wear Metro Limited and London Overground Rail Operations Limited.
[7] Arriva also owns Alliance Rail which has received approval to operate open access passenger rail services between London and Blackpool from December 2017.

The turnover of the Northern Franchise was £568 million in the year ended 3 January 2015.[8]

19. We therefore concluded that a 'relevant merger situation' has been created.

Rationale for Arriva's bid for the Northern Franchise

20. The Parties told us that Arriva's rationale for bidding for and acquiring the Northern Franchise was to develop its rail operations in Great Britain and to end a period of relatively unsuccessful franchise bidding. The Parties said that in bidding for the Northern Franchise, Arriva had sought to balance its risk portfolio in its rail business.

21. The Parties also told us that the bid aimed to enhance Arriva's reputation as an operator of and bidder for franchised rail services, and to deliver value through a much improved travelling environment and customer experience for rail passengers. The Parties said that it was not part of Arriva's strategy in bidding for the Northern Franchise to benefit from reduced competition on existing rail and bus services overlapping with Northern Franchise rail services.

Counterfactual

22. We considered what would have been the competitive situation in the absence of the Merger (the counterfactual).

23. The counterfactual in rail franchise cases is normally either that the franchisee raises no competition concerns or that such competition concerns as there are have been remedied. We have not identified any reason to depart from this approach in the present case.

24. In so far as the operation of the Northern Franchise is concerned, we have concluded that the Merger should be assessed against a counterfactual whereby the Northern Franchise is awarded to a TOC that raises no competition problems.

Market definition

25. The purpose of market definition in a merger inquiry is to provide a framework for the analysis of the competitive effects of the merger. The boundaries of the

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[8] Statutory accounts for Northern Rail Limited, 3 January 2015.

market do not determine the outcome of the analysis of the competitive effects of the merger.[9]

26. In relation to the geographic market, we note that passengers travel between a specific point of origin to a specific point of destination and, as such, demand is for travel between two points. We describe these journeys as 'flows'.

27. We considered competition between different modes of transport. We considered a reasonable starting point for analysis that, other things being equal, a service competes more closely with another service of the same mode of transport on a flow than with a service using a different mode of transport.[10]

28. We examined evidence regarding the degree of competition between bus and rail services and between public transport and private transport. As a starting point for the analysis we identified overlaps between the Parties' services and assessed competition between transport options on a flow-by-flow basis. We identified overlapping rail services where journeys were provided between the same two settlements. We identified bus and rail overlaps where the catchment area of a bus service contains rail station(s) or that of a rail service contains bus stop(s). We used data from the DfT's National Travel Survey to estimate the relevant catchment area.

29. We also considered the possible effects of the Merger on competition on routes as well as flows as certain aspects of the offer to both bus and rail passengers are set at the route rather than flow level.

Competitive assessment

Competition for the award of rail franchises

30. We considered whether the Merger would reduce competition for the award of future rail franchises.

31. Competition for the market, ie the competition for the award of future rail franchises, could be affected by the Merger if it could lead to a reduction in the number of bidders available for future rail franchise tenders or provide the Parties with an incumbency advantage over other bidders in future bids for franchises.

[9] *Merger Assessment Guidelines*, paragraph 5.2.2.
[10] This could, for example, be because services of the same mode of transport are more likely to offer a similar set of generalised journey costs (GJC).

32. We found that the rail franchise tendering process is designed to minimise incumbency advantages such that bidders are not expected to enjoy significant incumbency or scale advantages as a result of previous franchise bids or awards. We reviewed the identity of successful bidders in previous franchise awards, which suggested that incumbency advantages were not material. We found no evidence that the Merger would reduce the number of bidders for rail franchises.

33. We therefore concluded that the Merger has not resulted in or may not be expected to result in an SLC for the award of rail franchises.

Regulatory constraints on rail and bus operators

34. We considered the extent to which the regulatory framework constrains the commercial behaviour of TOCs.

35. In relation to rail fares, we found that the Parties do not have the ability to flex regulated fares under the current policy framework. We also examined the extent to which regulated fares constrain unregulated fares and found that regulated fares may act as a constraint on some unregulated fares in some instances. We considered the constraint that regulated fares impose on unregulated fares on a flow-by-flow basis as the mix of regulated and unregulated fares available to passengers varies by flow.

36. In relation to non-price aspects of the rail services, such as service quality, frequency and operational performance, we considered the extent to which TSRs and other obligations constrain the ability of franchised TOCs to adjust their offering. We found that the Parties have limited ability to change non-price aspects of their franchised rail services, including in relation to timetables, rolling stock and service quality.[11]

37. We also considered the extent to which the Parties' commercial behaviour is constrained by the regulation of local bus services. Commercial bus services are subject to relatively few regulatory constraints compared to rail services. The existence of partnership schemes with LTAs, or the potential for such schemes to be introduced, may impose some constraint on the Parties' commercial behaviour, although the constraint will depend on the nature of the schemes in place in different geographic areas. We also note that the Bus Services Bill intends to enhance the powers of LTAs.

[11] We note that the Parties have greater ability to change non-price aspects of their open access services, such as service quality, although track access agreements restrict the timetables of open access services and the rolling stock used.

38. Bus operators may be constrained by the need to maintain a good reputation with local LTAs and passenger transport executives (PTEs).

39. We took these regulatory factors into account, where relevant, in our competitive assessment.

Filters applied to overlapping flows

40. The Merger creates 167 overlaps between the Northern Franchise and other Arriva TOCs and, based on a 1,200-metre catchment area around the rail station, creates 1,068 overlaps between the Northern Franchise and Arriva UK Bus services. We therefore applied a series of filters for prioritisation purposes in order to focus our analysis on the flows most likely to raise competition concerns.

The effect of the merger on overlapping rail flows

41. We examined whether the Merger may result in an increase in fares on rail flows where services operated by the Northern Franchise overlap with services operated by other Arriva TOCs, namely ATW, CrossCountry and Grand Central.[12]

42. We considered 19 overlapping flows that remained following the application of filters and four additional flows on which internal documents suggested there was pre-Merger competition between Arriva TOCs and Northern Rail (the previous operator of the Northern Franchise).

43. We used the MOIRA industry model to test the closeness of competition between rail services on the 23 prioritised overlapping flows.

44. We identified 11 overlapping flows for detailed examination where the MOIRA analysis suggested that third party TOCs were not likely to be good alternatives for passengers to Northern Franchise services.

45. In our detailed assessment of these 11 flows, we considered:

(a) the share of services and revenues on the flow held by the Parties and third party TOCs;

(b) the closeness of pre-Merger competition between the Parties' rail services including the similarity of Northern Franchise and other Arriva and third

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[12] Having concluded that the Parties have limited ability to adjust non-price aspects of their franchised rail services, we focused our competitive assessment on the Parties' ability and incentive to increase unregulated fares as a result of the Merger.

party TOC services in terms of frequency, hours of operation, journey times and fares and evidence of pre-Merger competition on fares;

(c) the Parties' ability and incentive to increase unregulated fares post-Merger; and

(d) other constraints on the Parties' incentive to increase fares post-Merger, such as the level of flow revenue and competition from other modes of transport.

46. We also considered whether entry and expansion would be timely, likely and sufficient to constrain the Parties' commercial behaviour post-Merger.

47. We concluded that barriers to entry and expansion are high in relation to passenger rail services due to the limited spare capacity on the network and the regulation of track access.

48. Following our detailed assessment of the 11 flows, we concluded that the Merger has resulted in or may be expected to result in an SLC on three overlapping rail flows:[13]

(a) Leeds to Sheffield;

(b) Wakefield to Sheffield; and

(c) Chester to Manchester.

The effect of the merger on overlapping bus and rail flows

49. We examined whether the Merger may result in an increase in fares and/or a degradation in non-price aspects of the Parties' bus and rail services (such as service quality and frequency) in local areas where Arriva's bus services overlap with the Northern Franchise.

50. We focused our assessment on the competitive effects of the Merger on Arriva's bus fares and services as franchise specification limits the Parties' ability to change non-price aspects of their rail services and fare regulation limits the Parties' ability to adjust certain rail fares in response to competition from bus services.

[13] In our provisional findings, we found an SLC on the Chester to Stockport flow but, following a review of further evidence, concluded that the Merger has not resulted in or may not be expected to result in an SLC on this flow.

51. We examined the competitive effects of the Merger on 89 overlapping bus and rail flows prioritised through filtering. We also examined five further bus routes that were surveyed by the Parties.

52. We examined the Parties' ability to increase fares or degrade non-price aspects of bus services on overlapping bus and rail flows as a result of the Merger. The Parties told us that their commercial behaviour was constrained by the need to maintain graduated fare structures on routes, the price of Arriva zonal tickets and multi-operator tickets and by partnerships between Arriva and local authorities. We considered these potential constraints, where relevant, on a flow-by-flow basis.

53. We examined the Parties' incentives to increase bus fares or degrade non-price aspects of bus services post-Merger. In our assessment of overlapping flows, we considered a number of factors including:

(a) the proportion of route revenue accounted for by a flow on which Arriva bus services and Northern Franchise services overlap;

(b) the closeness of competition between bus and rail services pre-Merger;

(c) the extent of competition from other bus and rail operators; and

(d) local geographic factors, market conditions and other factors that might affect competition between bus and rail services on individual flows.

54. We noted that, in contrast to fare changes (which may be implemented through, for example, changes to fare stages), any changes to Arriva's service quality and frequency on a flow would necessitate changes at the route level. We therefore concluded that a flow would have to account for a significant proportion of a route in order for Arriva to have an incentive to degrade non-price aspects of bus services on a flow.

55. The Parties commissioned a survey of bus passengers on 18 flows that they identified through their own filtering process. We monitored the survey fieldwork and identified a number of issues with the conduct of the survey. We also identified a number of methodological issues in the design of the survey. We therefore considered the results of the survey 'in the round' with other evidence at an aggregate, rather than flow-specific, level.

56. The Parties told us that, under its current organisational structure, Arriva saw no potential advantage in coordinating strategy between its bus and rail divisions, and in any event was not set up to do so with each train and bus operating company having its own board and management structures, [✂]. However, we noted that Arriva is a commercial organisation and therefore has

incentives to ensure that it profit maximises post-Merger, which may include facilitating a degree of coordination between its bus and rail services post-Merger, where the incentive is sufficient to justify the change.

57. We examined barriers to entry and expansion in relation to bus services. We concluded that whilst *de novo* entry by new operators is unlikely to be timely, likely and sufficient to constrain the Parties' commercial behaviour, expansion by existing operators may act as a competitive constraint in certain areas, particularly where existing operators have a sizeable presence in the local area.

58. We found that the likelihood of entry or expansion by existing bus operators may vary according to local competitive conditions. We therefore considered the level of barriers to entry and expansion on a flow-by-flow basis as part of the competitive assessment.

59. In our provisional findings, following our detailed assessment of the over-lapping flows, we provisionally concluded that the Merger has resulted in or may be expected to result in an SLC on 24 overlapping bus and rail flows as a result of the Parties' ability and incentive to increase bus fares on these flows. We provisionally concluded that the Merger has not resulted in or may not be expected to create an incentive for the Parties to degrade non-price aspects of their bus services (eg service quality and/or frequency) on these flows.

60. Following our provisional findings, the Parties submitted further analysis of their incentive to increase bus fares as a result of the Merger on the overlapping flows on which we provisionally found an SLC.

61. We examined the Parties' incentive to increase fares on each of these flows by calculating the profit that the Parties would gain from increasing fares under a range of scenarios regarding the Parties' scope to increase bus fares and the diversion ratios to other modes of transport. We found that the profit the Parties could gain from increasing bus fares was very low or negative. This was found to be the case even in those circumstances where bus fares were increased on overlapping flows by the maximum level possible within the route and regional fare structures.

62. We concluded that the Parties did not have sufficient incentive to increase bus fares on the overlapping flows as a result of the Merger and therefore concluded that the Merger has not resulted in or may not be expected to result in an SLC on any overlapping bus and rail flows.

The effect of the merger on transport networks

63. Some passengers purchase network tickets rather than route or flow-specific tickets. For these passengers, the relevant market may be the network rather than the route or flow. On the supply side, bus operators organise their services around hubs and depots and may switch their services to or from the overlapping bus and rail flows and routes. We therefore considered the effect of the Merger on transport networks.

64. We found that bus and rail network tickets in the Northern Franchise area serve different market segments and that most passengers are unlikely to substitute between them. We also found that the wide availability of alternative bus network tickets offered by Arriva's competitors are likely to exert a competitive constraint on Arriva post-Merger and restrict its ability and incentive to flex its commercial offer on bus network tickets.

65. We therefore concluded that the Merger has not resulted in or may not be expected to result in an SLC in relation to transport networks.

Conclusion

66. The Merger creates 167 overlaps between the Northern Franchise and other Arriva TOCs and 1,068 overlaps between the Northern Franchise and Arriva UK Bus services.

67. As a result of our assessment, we concluded that:

    (a) the award of the Northern Franchise to ARN has created a relevant merger situation;

    (b) the creation of that situation has not resulted in or may not be expected to result in an SLC for the award of rail franchises;

    (c) the creation of that situation has not resulted in or may not be expected to result in an SLC in relation to transport networks;

    (d) the creation of that situation has resulted in or may be expected to result in an SLC on the following overlapping rail flows:

        (i) Leeds to Sheffield;

        (ii) Wakefield to Sheffield; and

        (iii) Chester to Manchester.

(e) the creation of that situation has not resulted in or may not be expected to result in an SLC on any overlapping bus and rail flows.

Remedies

68. Having found SLCs on the overlapping rail flows identified in paragraph 67, we considered whether any action should be taken for the purpose of remedying, mitigating or preventing the SLCs and any adverse effects, having regard to the effect of any action on any relevant customer benefits that may result from the Merger.

69. On 9 September 2016, we published a notice of possible remedies (the Remedies Notice), seeking views on our proposed approach. We stated that both structural and fare-based behavioural remedies were likely to be effective, but that the relevant costs of any feasible structural remedy would far exceed the scale of the adverse effects of the SLC in this case.

70. In response to the Remedies Notice, we received comments from the Parties and one third party competitor. Both submissions were in favour of a fare-based behavioural remedy in this case given the small number of SLCs identified relative to the total number of flows involved. Neither the Parties nor any third parties proposed alternative remedies.

71. We concluded that a fare-based behavioural remedy in the form of a fare increase control would be effective and proportionate in this case. We considered how such a remedy should be designed and implemented. The issues we considered in the Remedies Notice included:[14]

(a) the scope: namely which services would be affected and whether any fare increase control should be applied to individual flows or to an entire route;

(b) the structure: namely whether the fare increase control would apply to each individual fare-type, or to the average fare increase across a group of fares, which we characterise as a 'fare basket';

(c) the form: namely what measure would be appropriate to calculate the fare increase control, and how this would be defined within the remedy;

(d) the need for any additional controls around the mix of fares available; and

(e) the monitoring and compliance process of the remedy.

[14] Arriva/Northern Remedies Notice, paragraph 21.

72. We concluded that the fare increase control remedy in this case should be based on the existing approach to regulated fares within the rail industry, and would apply to:

(a) both the Northern Franchise and the overlapping Arriva rail services;

(b) fares on the overlapping rail flow only, but not the entire route or network tickets; and

(c) unregulated fares over which Arriva has the ability to increase fares.

73. These elements are specified more fully in the remedies section of the report (Section 14).

74. We concluded that this fare-based behavioural remedy would be an effective and proportionate remedy to address the SLCs and the resulting adverse effects, and that we intend to implement this by agreed undertakings.[15]

[15] If it was not possible to successfully negotiate such undertakings within a reasonable time period, we would implement this approach by issuing an Order.

Findings

1. The reference

1.1 On 20 May 2016, the Competition and Markets Authority (CMA), in the exercise of its duty under section 22(1) of the Enterprise Act 2002 (the Act), referred the completed acquisition by Arriva Rail North Limited (ARN), a wholly-owned subsidiary of Arriva plc (Arriva), of the Northern rail franchise (the Northern Franchise) (altogether the Merger) for further investigation and report by a group of CMA panel members (inquiry group).

1.2 In exercise of its duty under section 35(1) of the Act, the CMA must decide:

(a) whether a relevant merger situation has been created; and

(b) if so, whether the creation of that situation has resulted or may be expected to result in an SLC within any market or markets in the UK for goods or services.

1.3 Our terms of reference, along with information on the conduct of the inquiry, are set out in Appendix A.

1.4 This document, together with its appendices, constitutes our findings. Further information, including non-commercially-sensitive versions of the Parties' initial submission and summaries of evidence from third parties, can be found on our webpages.[16]

1.5 Throughout this document, where appropriate, we refer to Arriva, ARN and the Northern Franchise collectively as 'the Parties'.

2. Industry background

2.1 The structure of the bus and rail industries has evolved since privatisation, with a complex set of governance arrangements being developed in which the public and private sectors retain important roles. This section sets out a high level summary of:

(a) the structure of the rail industry;

(b) the funding of the rail industry;

(c) the role of government and the regulator in the rail industry;

[16] ARN/Northern Franchise merger inquiry case page.

(*d*) devolution of rail franchises; and

(*e*) the structure and regulation of the bus sector.

2.2 The financial performance of the rail and bus industries is examined in Appendix B.

The structure of the rail industry

Franchised train operating companies

2.3 Franchised TOCs operate passenger rail franchises and are awarded the right to run specific services within a specified area for a specific period of time, in return for the right to charge fares. Where appropriate, franchised TOCs receive financial support from the franchising authority, which is currently the Rail Group in the DfT.[17] There are currently 16 franchises operating in England and Wales and two in Scotland.

2.4 Franchised TOCs bid for franchises on the basis of the amount of funding they would require – or the premium they would be prepared to pay – in order to run the services specified in the franchise. The winner is selected on the basis of a weighted scoring system taking into account factors including the subsidy required or premium offered and initiatives to enhance the quality of service for passengers.

2.5 The rights and obligations of franchised TOCs are specified through a TSR as part of the franchise agreement negotiated between the franchising authority and the franchisee. The TSR includes obligations on franchised TOCs such as the number of daily calls at stations and the timing of first and last trains. Each franchise has its own specific TSR and the degree of specification by government varies by franchise.

2.6 Following the problems with the re-let of the West Coast franchise,[18] the Brown Review examined the wider rail franchising programme, looking in detail at whether changes were needed to the way risk was assessed and to the bidding and evaluation process.[19] During the hiatus in the bidding process, a number of direct awards were made to extend franchises. The nature of these awards varied but, in effect, the government negotiated

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[17] Transport Scotland is the franchising authority for the ScotRail and Caledonian Sleeper franchises. There are also specific arrangements in place for London Overground and Merseyrail.
[18] In August 2012, the DfT awarded the West Coast franchise to FirstGroup. Virgin Trains judicially reviewed the DfT's decision and, in October 2012, the DfT announced that it would no longer contest the judicial review, stating that it had discovered technical flaws in its bidding process.
[19] DfT (January 2013), *The Brown Review of the Rail Franchising Programme*.

directly with the incumbent operator and there was no competition for the award.

2.7 The franchise bidding process restarted in 2013, leading to the subsequent award of the Essex Thameside, Thameslink, Southern & Great Northern and East Coast main line franchises.

2.8 Competition 'for' the market, ie for the award of a rail franchise, is currently the principal form of competition in passenger rail services and franchised services cover 99% of passenger rail miles in Great Britain. There is also a degree of competition 'in' the market (known as 'on-rail' competition) on certain parts of the rail network where franchised TOCs and other operators run services on overlapping or parallel routes.

2.9 The extent of overlapping and parallel franchises has reduced over time following a policy decision in 2001 by the then franchising authority, the Strategic Rail Authority, to reduce the number of franchises. This trend has continued in more recent franchise awards including through the removal of many of the overlaps between the Northern Franchise and the TransPennine Express franchise and the combination of Thameslink, Southern and Great Northern services into a single franchise.

Open access operators

2.10 OAOs operate passenger rail services on a commercial basis on routes authorised by the ORR (see paragraph 2.27) for a specified time. OAOs compete with franchised TOCs where their services overlap.

2.11 There are currently just two OAOs, Grand Central and First Hull Trains, both of which are owned by larger companies with franchise operations in Great Britain.[20] These operate a small number of services on specified routes in competition to the franchisee on the East Coast main line. Together they represent less than 1% of passenger miles.

2.12 In August 2015, ORR approved an application by Alliance Rail to operate six off-peak services per day between London and Blackpool and in May 2016 ORR approved an application by FirstGroup to run five off-peak return services per day between London and Edinburgh.[21]

2.13 The scale of 'open access' operations is currently limited by ORR's assessment criteria. ORR needs to achieve an appropriate balance between

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[20] Grand Central is owned by Arriva (see paragraph 3.6).
[21] ORR (2015), *Application for access to the West Coast Main Line*; ORR (2016), *Application for access to the East Coast Main Line*. Alliance Rail is majority owned by Arriva UK Trains.

its 24 statutory duties, which include not only an obligation to promote competition in the provision of railway services for the benefit of users, but also duties to act so as not to render it unduly difficult for network licence holders (ie Network Rail) to finance regulated activities and to have regard to the funds available to the government for its functions in relation to railways and railway services.[22]

2.14 In practical terms, ORR balances its duties through the application of a 'not primarily abstractive' (NPA) test, under which ORR would not expect to approve open access applications unless they generate at least 30 pence of new revenue for every £1 abstracted from existing operators.

2.15 In March 2016, the CMA published a policy document setting out the benefits that greater on-rail competition could deliver, including lower fares, service quality enhancements, innovation and greater efficiency.[23] The CMA recommended that government allows OAOs to have a significantly increased role on key intercity routes subject to certain conditions. The policy document also highlighted the benefits that greater competition between franchised TOCs could deliver on intercity routes, although the benefits would be more limited than through competition with OAOs due to franchise specification.

Freight operating companies

2.16 Freight operating companies operate freight train services in Great Britain on an entirely open access basis, ie there is full competition 'in' the market, rather than 'for' the market. Services are not specified by government.

2.17 Freight operators may either own or lease locomotives and wagons. They are allocated train paths on the network by Network Rail, alongside franchised TOCs and OAOs. Rail freight serves sectors including bulk (eg coal, construction and petrochemicals), intermodal (eg shipping containers) and automotive.

2.18 There are currently seven separate freight operators in Great Britain: Colas Rail, DB Schenker, Devon & Cornwall Railways, Direct Rail Services, Europorte, Freightliner and GB Railfreight.[24]

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[22] Railways Act 1993, section 4.
[23] CMA (2016), *Competition in passenger rail services*.
[24] Freight operators do not compete directly with the Parties.

Network Rail

2.19 Network Rail owns and manages the main rail network infrastructure in Great Britain, including the track and related infrastructure and the vast majority of railway stations.[25]

2.20 Network Rail is regulated by ORR under its network licence.[26] ORR has a range of statutory powers to set the contractual and financial framework within which Network Rail operates. On 1 September 2014, Network Rail was reclassified as a public sector body.

Rolling stock leasing companies

2.21 Rolling stock leasing companies (ROSCOs) own fleets of trains and lease them to franchised TOCs, OAOs, freight operators and train building companies.[27] The three major ROSCOs operating in Great Britain are Angel Trains, Eversholt and Porterbrook. When rolling stock is replaced by newer stock on a given route, it is often re-let to other routes operated by different companies and ROSCOs work with train operators to determine the sorts of rolling stock required to deliver the desired customer services.

2.22 Although constrained by the availability of rolling stock and the rolling stock's interoperability with train operators' requirements, there is a degree of competition between ROSCOs. A new competitor, QW Rail Leasing, entered the market in 2008 and currently leases trains to London Overground.

The funding of the rail industry

2.23 The funding of the rail industry is complex, with the costs of funding being met by passengers and government, with government funding being provided through a number of mechanisms. In 2014-15, ORR analysis indicates that the combined industry income in Great Britain from franchised TOCs and Network Rail was £13.5 billion. 71% of this income was derived from passengers, with government providing another 26%. Other sources of income, such as property, provided the remaining 3%.[28]

2.24 Compared with 2013-14, industry income from passenger fares has increased by £0.4 billion (5%), to £8.8 billion in 2014-15, primarily due to a 4% rise in the number of passenger journeys. Another £0.8 billion of income

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[25] Network Rail operates 19 stations itself and leases all the others to the franchised TOCs.
[26] Network licence granted to Network Rail Infrastructure Limited.
[27] The main companies involved in building existing passenger trains for the market in Great Britain are Alstom Power, Bombardier Transportation, Hitachi Europe Ltd and Siemens Transportation Systems Ltd.
[28] ORR (2016), *GB rail industry financial information 2014-15*.

from passengers was derived in 2014-15 from on-train catering and other services.

2.25 The comparable cost to Network Rail and franchised TOCs of running Great Britain's railways was £13.6 billion in 2014-15, with 54% of these costs incurred on train operations and 46% on rail infrastructure. At an aggregate level, franchised TOCs contributed significantly more to government than in previous years. Whereas in 2013-14 franchises received net support of £0.1 billion, in 2014-15 they made net payments of £0.7 billion to government.[29] Some franchises paid premiums to government, whilst others were in receipt of subsidies.

2.26 Net funding from government for rail infrastructure increased by 12% from £3.7 billion in 2013-14 to £4.2 billion in 2014-15. Industry costs increased by £0.9 billion (7%) in 2014-15, largely due to Network Rail's maintenance and renewals costs rising, as well as an increase in train operator costs.

The role of government and the industry regulator

Office of Rail and Road

2.27 ORR is an independent regulator, which operates within the framework set by UK and EU legislation and is accountable through Parliament and the courts. It is the main safety regulator of railways in Great Britain and is responsible for the economic regulation of railway infrastructure (namely Network Rail and High Speed 1).[30] In exercising its functions under the principal legislation, the Railways Act 1993, ORR must consider and achieve an appropriate balance between its 24 statutory duties.

Department for Transport

2.28 The DfT, acting under the authority of the Secretary of State, is responsible for preparing the government's long-term strategy for the rail industry, defining the level of passenger services expected to run and specifying the level of funding required.

2.29 The DfT, through its Rail Group, is the franchising authority responsible for the majority of franchise agreements entered into with respect to services on

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[29] The government paid £4.2 billion in grants to Network Rail in 2014-15 and the net contribution by TOCs to government reduced overall net government expenditure to £3.5 billion (ie 26% of the rail industry's income).
[30] High Speed 1 Ltd has a 30-year concession to operate and manage the railway between London St Pancras and the Channel Tunnel.

the rail network in England, Wales and cross-border routes.[31] In addition, it is responsible for fare regulation and other consumer protection aspects such as safeguarding the provision of services for disabled people.

Devolution of rail franchises

2.30 Scotland's rail strategy is determined by Scottish ministers and includes responsibility for defining the level of public expenditure required to support Network Rail's operations and the ScotRail and Caledonian Sleeper franchises.

2.31 The Welsh government was given more powers with respect to passenger services in Wales under the Railways Act 2005. In November 2014, agreement was reached to devolve rail franchising functions to the Welsh government effective from 2017. This will enable the Welsh government to specify and award the next Wales & Borders franchise, for which the invitation to tender will be issued in August 2017 so that the new franchise may commence in October 2018.

2.32 A number of regional rail franchises are expected to be devolved in the coming years. In March 2015, the Secretary of State signed a partnership agreement with Rail North for the management of the Northern and TransPennine Express franchises from 1 April 2016.

2.33 Rail North is a government body based in Leeds, which was set up to support railways in the North of England and represents 29 LTAs from across the region.[32] Although there remain a number of 'reserved matters' for the Secretary of State, the responsibilities of Rail North include developing the TSRs and train plans for franchises in the region, implementing changes to the train fleet, undertaking performance management and enforcement, while, also, applying fare increases to fare baskets.

2.34 In addition to this, and as part of the 'Northern Powerhouse' programme,[33] the government entered into a devolution agreement with Greater Manchester in November 2014, outlining the powers to be transferred to the area as it moves towards having a directly elected mayor in 2017.[34] The

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[31] The franchising authorities for the London Overground and Merseyrail operations are Transport for London and Merseytravel respectively.
[32] For further information on the Rail North – DfT Partnership, see Rail North's website. Available at: www.railnorth.org.
[33] The aim of the 'Northern Powerhouse' programme is to close the north-south economic divide by investing in infrastructure, including major transport projects.
[34] The Greater Manchester devolution agreement was supplemented by a further agreement in July 2015. See House of Commons (7 October 2015), *Devolution to local government in England (SN07029)*.

powers and resources that the mayor will receive include a devolved transport budget as well as responsibility for franchised bus services, railway stations and 'smart ticketing' (following the example of London's Oyster card) in Greater Manchester.[35] Furthermore, Greater Manchester will work closely with the DfT and Rail North in order to contribute to rail franchising policy.[36]

2.35 The Cities and Local Government Devolution Act 2016 puts in place the legal framework to enable other areas to follow the lead of Greater Manchester.[37]

Bus services

Background to the industry

2.36 Buses are the most widely used form of public transport in England. There were around 5.2 billion bus journeys made in Great Britain in 2014/15, with over half being in London. This generated a total of £3.3 billion from passenger fares.[38]

2.37 The provision of local bus services is now largely in private ownership since the industry was deregulated in 1986. The five largest bus operators in England are Stagecoach (19%), Arriva (17%), FirstGroup (13%), Go-Ahead (13%) and National Express (5%). Other large operators of local bus services account for 22% of services in England, with smaller operators accounting for the remaining 12%.[39]

2.38 Bus usage declined from the 1970s until the 1990s, although passenger numbers have slowly increased at a national level since 1998-99 at an annual rate of 1%. However, in the North and West of England, bus usage has continued to decline in recent years, falling by 9.4% between 2008-09 and 2013-14.[40]

2.39 LTAs review the network of commercially registered services, identify additional services which they consider to be socially necessary and then seek providers through a tendering process. Such tenders may, depending

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[35] Ibid.
[36] See HM Treasury and Great Manchester Combined Authority (November 2014), *Greater Manchester Agreement: devolution to the GMCA & transition to a directly elected mayor*, paragraph 15.
[37] Cities and Local Government Devolution Act 2016. Devolution deals have been announced for Sheffield (December 2014 and October 2015), West Yorkshire (March 2015) and Cornwall (July 2015), which contain elements of control over transport policy being devolved to these regions.
[38] DfT, *Transport Statistics Great Britain 2015*.
[39] DfT (2014), *Annual bus statistics: England 2013/14*.
[40] DfT (2014), *Annual bus statistics: England 2013/14*.

on the circumstances, provide that the revenue risk passes to the service provider or remains with the LTA.[41] Tendered bus services typically fall into one of two categories: day services that provide links to employment, education and local services; and evening and Sunday services which support shift workers as well as leisure travel. In both cases, insufficient demand and local geography typically combine to make these routes commercially unattractive.[42]

2.40 In London, bus services are franchised by Transport for London. Outside London, bus operators have the ability to operate commercial services. However, approximately 20% of bus services, which would not be offered by commercial operators, are financially supported and tendered by LTAs. In larger urban areas, passenger transport executives (PTEs) are responsible for public transport, reporting to integrated transport authorities or combined authorities.

2.41 Although bus services outside London are largely commercial operations there are, in addition to the financial support of tendered services, two other key sources of revenue support from public funds:

(a) Concessionary fares, where the LTA will subsidise bus travel for particular groups (eg the elderly).

(b) The Bus Service Operators' Grant (BSOG) which allows operators of local bus services and community transport schemes to reclaim some of their fuel costs.[43] This grant was reformed in 2014, and further changes continue to be considered.[44]

2.42 In 2011, the Competition Commission (CC) published its final report into the local bus industry.[45] The report identified a number of factors that restrict competition between operators and the level of entry and expansion into local areas by rivals. The CC imposed a package of remedies including increasing the number of effective multi-operator ticketing schemes, introducing restrictions on bus operators making changes to service

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[41] LTAs may be a county council in England, a council of a non-metropolitan district in England comprised in an area for which there is no county council, a passenger transport authority for a passenger transport area in England or a county council or county borough council in Wales. Under the Transport Act 2000, LTAs must develop policies for the promotion and encouragement of safe, integrated, efficient and economic transport facilities. LTAs are also required to prepare a local transport plan and bus strategy document.
[42] DfT (2016), *Value for money of tendered bus services*.
[43] The BSOG is designed to keep costs down, as well as enabling operators to run services that might not otherwise be unprofitable and might otherwise be cancelled.
[44] DfT (2016), *Bus services: grants and funding*.
[45] CC local bus services market investigation.

frequency and measures designed to ensure that entrants and competing operators are able to secure access to bus stations.

Regulation of the bus industry

2.43 Although the majority of bus services outside London are commercial in nature, all bus operators are subject to a number of regulations.

Fares

2.44 Outside London, fares are set for commercial services by operators based on operating costs and market conditions. For supported services based on gross cost contracts they are set by the LTA.[46] Within London, fares are set by the Mayor.

2.45 LTAs now have statutory powers to create, and require operators to participate in, bus multi-operator ticketing schemes, including network tickets. Multi-operator tickets can also be set up on a voluntary basis, and such agreements between competing operators are excluded from Chapter I of the Competition Act 1998 (this is the UK law prohibiting anti-competitive agreements) through the public transport ticketing schemes block exemption (assuming they meet certain necessary criteria).[47]

2.46 The block exemption was renewed by the Secretary of State in February 2016.[48] The CMA has consulted on updated guidance on the application of the block exemption.

Services

2.47 Traffic Commissioners are responsible for the licensing and regulation of those who operate heavy goods vehicles, buses and coaches, and the registration of local bus services. There are eight Traffic Commissioners in Great Britain. They are assisted by deputy Traffic Commissioners, who preside over a number of public inquiries.[49]

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[46] Under gross cost contracts, the tendering authority pays an operator to provide services, retaining the passenger revenue and often setting the routes and specifying the types of vehicles.
[47] *Public transport ticketing schemes block exemption: OFT439*, 1 November 2006.
[48] See Competition Act 1998 (Public Transport Ticketing Schemes Block Exemption) (Amendment) Order 2016 (SI 2016/126). This order came into force on 29 February 2016. The order makes certain amendments to the block exemption and extends the duration for ten years.
[49] Traffic Commissioners can call a formal public inquiry in a court to get more evidence to help them decide if they should grant or refuse licences for heavy goods vehicle or public service vehicle operators or take action against a vehicle operator, bus service operator or driver of a bus, minibus or lorry.

2.48 Bus operators are required to notify new services or a change in their timetables to the Traffic Commissioner, giving 56 days' notice of changes. The same notice period is required if a route is being discontinued.

2.49 Tendered bus services have more stringent obligations set by LTAs than commercial services, including in relation to fares, routes and service frequencies, with the specification varying on a case-by-case basis.

2.50 LTAs may also adopt commercial partnerships with bus operators. We set out the key partnership schemes in paragraph 8.76. The nature of these partnerships may change in the future as a result of the Bus Services Bill currently progressing through Parliament (see paragraph 8.77).

2.51 The regulatory constraints on bus and rail operators are considered further in Section 8.

3. The Parties

Arriva

3.1 Arriva is part of Deutsche Bahn AG and is one of the largest providers of passenger transport in Europe, operating 2.2 billion passenger journeys per year across 14 European countries.[50] Arriva's revenue in 2015 was €4.8 billion (£3.5 billion).[51]

3.2 Arriva originated in Sunderland in 1938 as a second hand motorcycle dealer. Arriva first began providing bus services in 1980 through the acquisition of the Grey-Green bus company. Arriva entered the passenger rail sector in 2000 through the acquisition of Merseyside Transport Limited.[52]

3.3 In the UK, Arriva provides passenger rail services (both heavy and light rail), bus services, non-emergency patient transport services and specialist education transport services.

3.4 Arriva is currently divided into three divisions, each with its own management teams and divisional directors:

(a) Arriva UK Trains.

(b) Arriva UK Bus.

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[50] Deutsche Bahn AG is 100% owned by the Federal Republic of Germany.
[51] Deutsche Bahn (2015), Integrated Report, p137.
[52] Arriva website.

(c) Mainland Europe.

Arriva UK Trains

3.5 ARN is a wholly-owned subsidiary of Arriva UK Trains Ltd created for the purpose of bidding for, and operating, the Northern Franchise. ARN was dormant prior to becoming the franchisee for the Northern Franchise.

3.6 In addition to the Northern Franchise, Arriva UK Trains operates the following rail services:

(a) Three rail franchises:

(i) CrossCountry – services span the UK from Aberdeen in the north to Stansted Airport, Plymouth and Penzance in the south. The original franchise agreement expired in October 2016 although Arriva will continue to operate the franchise through a direct award contract until October 2019.[53]

(ii) ATW – services are provided predominantly within Wales, with some services in the North of England and the Midlands. The franchise agreement is due to expire in October 2018.

(iii) Chiltern Railways – services are operated between Aylesbury, Birmingham Snow Hill, Kidderminster, Oxford, Stratford-upon-Avon and London. The franchise agreement is due to expire in December 2021.

(b) Two rail concessions:

(i) DB Regio Tyne and Wear Metro Limited (Tyne and Wear Metro) – operated under a concession agreement with Nexus, the PTE for the Tyne and Wear region. The concession agreement is due to expire in March 2017, although it could be extended to 31 March 2019.

(ii) London Overground Rail Operations Limited – a joint venture between Arriva and MTR Corporation (of Hong Kong) which operates the concession on behalf of Transport for London. The concession agreement is due to expire in November 2016.

(c) Open access rail services under the following:

[53] DfT news story (29 September 2016): Better journeys for passengers on the Cross Country network.

(i) Grand Central – provides high speed train services between London and Sunderland and between London and Bradford (calling at various intermediate stops). Grand Central's track access agreement with Network Rail will expire in November 2026.

(ii) Alliance Rail – not currently providing rail services but has received approval to operate passenger rail services between London and Blackpool from December 2017.[54]

3.7 In 2015, Arriva UK Trains generated €1.7 billion (£1.2 billion) of revenue, with an EBIT margin of 2.5%.[55,56]

Arriva UK Bus

3.8 Arriva UK Bus is a major bus operator in the UK. It is the third largest operator in the regional bus market, operating around 4,300 buses in the North East, North West and South East of England as well as in Yorkshire, The Midlands and Wales. Arriva UK Bus also operates 1,600 buses in London.

3.9 Arriva's UK bus services are run by individual operating companies within a divisional organisation split into the following regional management areas:

(a) Arriva North West and Wales;

(b) Arriva Yorkshire and North East;

(c) Arriva Midlands and Arriva The Shires;

(d) Arriva Southern Counties; and

(e) Arriva London.

3.10 The Parties told us that each of these regional management areas had its own leadership team reporting to Arriva UK Bus divisional leadership.

3.11 Arriva North West and Wales and Arriva Yorkshire and North East operate bus services in the Northern Franchise area though the following operating companies:

(a) Arriva Durham County Limited;

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54 [✂]. Additional overlaps may arise between Northern Franchise services and Alliance Rail services once Alliance Rail begins operating these services.
55 Earnings Before Interest and Tax.
56 Deutsche Bahn (2015), Integrated Report, p138.

(b) Arriva North West Limited;

(c) Arriva Northumbria Limited;

(d) Arriva Tees & District Limited;

(e) Arriva Yorkshire Limited; and

(f) Yorkshire Tiger Limited.

3.12 In some regions, premium services are operated under the Sapphire brand and inter-urban express services are operated under the MAX brand.

3.13 In 2015, Arriva UK Bus generated a total €1.3 billion (£1.0 billion) of revenue, with an EBIT margin of 11.2%.[57] However, the level of profitability differed significantly between regions (most notably in [✂]).

Arriva Mainland Europe

3.14 Arriva Mainland Europe operates a mixture of bus, coach and rail services in Croatia, Czech Republic, Denmark, Hungary, Italy, Netherlands, Poland, Portugal, Serbia, Slovakia, Slovenia, Spain and Sweden.

3.15 In 2015, Arriva's Mainland Europe division generated €1.9 billion (£1.4 billion) of revenue, with an EBIT margin of 8.0%.[58]

The Northern Franchise

3.16 The Northern Franchise is currently the largest rail franchise in Great Britain in terms of the number of services operated, serving 526 stations and operating over 15,000 local and regional services per week.

3.17 The Northern Franchise provides inter-urban, commuter and other services across the whole of the North of England. The Northern Franchise operates over most rail routes in the North of England, from Chathill in the north to Stoke-on-Trent and Nottingham in the south of the region, and from Liverpool in the west to Hull in the east. Services provided by the Northern Franchise include:

(a) longer-distance regional services that connect major urban centres (eg Nottingham–Leeds; York–Blackpool and Sheffield–Doncaster–Hull);

[57] Deutsche Bahn (2015), Integrated Report, p138.
[58] Deutsche Bahn (2015), Integrated Report, p138.

(b) urban services (eg commuter services around the main northern cities such as Leeds, Liverpool, Newcastle, Sheffield and Manchester); and

(c) rural services (eg routes along the Cumbrian coast from Carlisle to Barrow-in-Furness and the route from Hull to Scarborough in the east).

3.18 Between December 2004 and March 2016, the Northern Franchise was operated by Serco-Abellio.[59] The Northern Franchise was awarded to ARN following a competitive tendering process in which ARN, Abellio and Govia were shortlisted bidders.

3.19 The Northern Franchise currently receives the highest government subsidy, which stood at £365 million in 2015, although this is expected to reduce during the life of the franchise (as discussed further in Appendix C).

3.20 The Northern Franchise generated £568 million in 2014 with EBIT margins of [✂]%,[60] whilst Arriva targeted a [✂]% EBIT margin in designing its franchise bid.

3.21 Additional details on the historical and forecast financial performance of the Northern Franchise are provided in Appendix C.

4. The transaction and relevant merger situation

The transaction

4.1 On 9 December 2015, the DfT announced that ARN was the successful bidder for the Northern Franchise. On 22 December 2015, the Secretary of State and ARN entered into a franchise agreement and associated agreements confirming the award of the Northern Franchise to ARN. The operation of the Northern Franchise commenced on 1 April 2016 for a term of nine years (subject to a possible extension of up to one year).

The rationale for the transaction

4.2 The Parties told us that Arriva's rationale for bidding for and acquiring the Northern Franchise was to:[61]

[59] Serco-Abellio was a joint venture between Serco and Abellio in which each company owned a 50% share.
[60] Based on Northern Rail statutory accounts for year ending 3 January 2015.
[61] Arriva initial submission, paragraph 5.1.

(a) develop its rail operations in Great Britain, in particular as a number of the rail franchises currently operated by Arriva in Great Britain were due for re-tendering in the next few years;

(b) end a period of relatively unsuccessful franchise bidding and enhance its reputation as an operator and bidder;

(c) deliver value through a much improved travelling environment and customer experience for passengers; and

(d) balance its risk portfolio [✂].

4.3 The Parties said that whilst the Northern Franchise was and would be functionally separate from other Arriva businesses, the Northern Franchise had been awarded to Arriva as an ‘owning group’ (ie a corporate group including other TOCs) [✂]. Arriva told us that there was no involvement by its UK Bus division in the decision to bid for the Northern Franchise and that it was at no point any part of Arriva’s strategy in bidding for the Northern Franchise to benefit from reduced competition on existing rail or bus services overlapping with Northern Franchise services.[62]

Jurisdiction

4.4 The Merger met the thresholds under Council Regulation (EC) 139/2004 (the EC Merger Regulation) for review by the European Commission (the Commission). The Parties submitted a reasoned submission to the Commission on 18 December 2015 requesting pre-notification referral to the CMA under Article 4(4) of the EC Merger Regulation. The CMA informed the Commission that it agreed with the referral request and considered the Merger capable of being reviewed in the UK under the Act. On 27 January 2016, the Commission announced its decision to refer the Merger to the CMA for review.[63]

4.5 On 20 May 2016, the CMA, in the exercise of its duty under section 22(1) of the Act, referred the Merger to the inquiry group for further investigation.

4.6 Under section 35 of the Act and pursuant to our terms of reference (see Appendix A), we are required to investigate and report on certain statutory questions, the first being whether a ‘relevant merger situation’ has been created.

[62] Arriva initial submission, paragraph 5.2.
[63] Case M.7897 – Arriva Rail North/Northern Franchise.

4.7 Section 23 of the Act provides that a relevant merger situation has been created if:

(a) two or more enterprises have ceased to be distinct within the statutory period for reference;[64] and

(b) either the 'turnover test' or the 'share of supply test' (as specified in that section of the Act) is satisfied, or both are satisfied.

4.8 Firstly, we consider whether the structure of the Merger transaction involves enterprises that cease to be distinct. The award of a rail franchise constitutes an acquisition of control of an enterprise by virtue of section 66(3) of the Railways Act 1993. The Northern Franchise and Arriva have therefore ceased to be distinct.

4.9 Secondly, we consider whether the transaction has a sufficient nexus within the UK to merit the investigation. This is the case if the 'turnover test' or the 'share of supply test' is satisfied. The turnover test in section 23(1)b is satisfied where the value of the turnover in the UK of the enterprise being taken over exceeds £70 million. The turnover of the Northern Franchise was £568 million in the year ended 3 January 2015.[65]

4.10 We therefore conclude that a 'relevant merger situation' has been created.

5. The counterfactual

5.1 Before we turn to the effects of the Merger we need to determine what we would expect the competitive situation to be absent the Merger. This is called the 'counterfactual'.[66] The counterfactual is a benchmark against which the expected effects of the merger can be assessed. The counterfactual takes events and their consequences into account to the extent that they are foreseeable.[67]

5.2 The CMA will normally select the counterfactual that is most likely to have existed absent the merger, based on the facts available to it and the extent of foreseeable future events.

5.3 In non-rail franchise cases the CMA will normally examine several possible scenarios to inform its judgement on the likely future situation in the absence

[64] As set out in section 24 of the Act.
[65] Statutory accounts for Northern Rail Limited, 3 January 2015.
[66] *Merger Assessment Guidelines*, paragraph 4.3.1.
[67] *Merger Assessment Guidelines*, paragraph 4.3.2.

of the merger, one of which may be the continuation of the pre-merger situation.[68]

5.4 However, rail franchise cases raise a particular issue because the existing rail franchise expires and a new franchise must be awarded to one of a shortlist of bidders.[69] Thus in the case of a rail franchise award the pre-merger situation cannot be the appropriate counterfactual. This is recognised in the Merger Assessment Guidelines. We have therefore to identify a counterfactual which allows the CMA to make a comparative assessment of the rail franchise where the status quo ante, or some development of it, is not open to us.

5.5 The Merger Assessment Guidelines[70] state that in rail franchise cases:

> The Authorities will therefore treat the appropriate counterfactual to the merger as the award of the franchise either to a firm that raises no competition concerns, or, if there is no alternative bidder that does not raise competition concerns, to a hypothetical bidder, with any competition concerns being remedied through behavioural remedies.[71]

The views of the Parties

5.6 The Parties told us that the other shortlisted bidders in the present case, namely Govia and Abellio, would both raise potential competition concerns given overlaps with the Northern Franchise.[72] They argued that there was therefore no other bidder in this case which would not raise at least some competition concerns and the appropriate counterfactual was therefore the award of the rail franchise to 'a hypothetical bidder, with any competition concerns being remedied through behavioural remedies'.

5.7 The Parties then told us that the effects of the two counterfactuals in the Merger Assessment Guidelines are not the same given that the Merger Assessment Guidelines identify two separate situations.[73] The Parties said that we should assume that a hypothetical bidder would give rise to one or more SLCs and that, while the SLC would be remedied, this would not

[68] *Merger Assessment Guidelines*, paragraph 4.3.6.
[69] *Merger Assessment Guidelines*, paragraph 4.3.28. See, for example, Office of Fair Trading (OFT) (2008), *Stagecoach/East Midlands passenger rail franchise*.
[70] *Merger Assessment Guidelines*, paragraph 4.3.29 and footnote 50: CC case (2006), *Greater Western Passenger Rail Franchise*.
[71] *Merger Assessment Guidelines*, paragraph 4.3.29.
[72] Arriva initial submission, paragraph 14.2.
[73] *Merger Assessment Guidelines*, paragraph 4.3.29.

entirely restore competition to the pre-award state because behavioural remedies are subject to a proportionality assessment.[74]

5.8 The Parties concluded that the effect of the Merger Assessment Guidelines was to acknowledge the counterfactual could not be one of 'perfect competition' but involved some degree of compromise to competition on individual flows.[75]

CMA assessment

5.9 Our starting point is the Merger Assessment Guidelines which reflect previous decisions of the CC and OFT. The guidelines state that the counterfactual in rail franchise cases is either that the franchisee raises no competition concerns or that such competition concerns as there are have been remedied. It is apparent from paragraph 4.6 of the decision in FirstGroup/Great Western, on which paragraph 4.3.29 of the Merger Assessment Guidelines is based, that those two scenarios – either that the alternative franchisee does not raise competition concerns or that any competition concerns have been remedied through behavioural remedies – are intended to have the same effect. This is not, as the Parties suggest, to say that the benchmark is one of 'perfect competition' but rather that the counterfactual franchisee is assumed not to create any competition concerns.

5.10 Examples of previous decisions, in phase 1 and phase 2, in which this approach has been adopted include:[76]

(a) *FirstGroup/Great Western* (2006);[77]

(b) *National Express/Intercity East Coast* (2007);[78] and

(c) *Stagecoach/South Western* (2007).[79]

5.11 We have not identified any reason to depart from this approach in the present case. The approach in the Merger Assessment Guidelines is

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[74] Arriva response to issues statement, paragraph 3.3.1 and Arriva response to provisional findings, p4.
[75] Arriva response to issues statement, paragraph 3.4.
[76] See also cases: *Stagecoach group plc/East Midlands Passengers rail franchise*, paragraphs 7 & 8; *Govia Limited/West Midlands Passenger rail franchise*, paragraphs 9, 10 & 11; *Abellio Greater Anglia Limited/Greater Anglia Franchise*, paragraphs 6 & 7; *Govia Limited of South Central passenger Rail Franchise*, paragraphs 9 & 10; *Arriva plc through Arriva Trains Cross Country Limited/Cross Country Passenger Rail Franchise*, paragraphs 6 & 7.
[77] CC, FirstGroup/Great Western final report, paragraph 4.6.
[78] OFT, National Express/ICEC final report, paragraph 9.
[79] OFT, Stagecoach/South Western, paragraph 16.

consistent with the CMA's general approach to cases in which there are multiple bids.

5.12 First, it would not be feasible and practicable within the time limits to assess the bids of all alternative bidders whose bids might give rise to competition problems as part of the assessment of the franchise award.

5.13 Secondly, as previously said, whether an alternative franchisee would raise no competition concerns or whether any competition concerns would be remedied are, and are intended to be, different scenarios but with the same effect.[80] While the Parties submit that we should assume that a hypothetical bidder gives rise to one or more SLCs we note that, contrary to the Parties' submission, the hypothetical bidder identified in the Merger Assessment Guidelines is not assumed to raise competition concerns. The assumption is that if it does they will be resolved. It is difficult to see why we would assess the Merger against a hypothetical bidder with hypothetical SLCs that lead to competition being compromised, as suggested by the Parties, when the Merger Assessment Guidelines direct us away from actual bidders with actual competition concerns.

5.14 Thirdly, that behavioural remedies, like any other remedy, are subject to the requirements of proportionality does not require us to conclude that competition may be 'compromised', as suggested by the Parties. The CMA's obligation to adopt proportionate remedies does not prevent it from selecting effective remedies. In practice, the CMA will assess the effectiveness of any remedy first and only then consider its proportionality.

5.15 Accordingly, in so far as the operation of the Northern Franchise is concerned, the CMA concludes that the Merger should be assessed against a counterfactual whereby the Northern Franchise is awarded to a TOC that raises no competition concerns.

6. Market definition

6.1 The purpose of market definition in a merger inquiry is to provide a framework for the analysis of the competitive effects of the merger.[81] Market definition is a useful analytical tool, but not an end in itself, and identifying the relevant market involves an element of judgement.

6.2 The boundaries of the market do not determine the outcome of the CMA's analysis of the competitive effects of the merger in any mechanistic way. In

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[80] See CC (2006), *Greater Western Passenger Rail Franchise*, paragraph 4.6.
[81] *Mergers: Guidance on the CMA's jurisdiction and procedure (CMA2)*, paragraph 5.2.1.

assessing whether a merger may give rise to an SLC the CMA may take into account constraints outside the relevant market, segmentation within the relevant market, or other ways in which some constraints are more important than others.[82]

6.3 In this section, we set out the relevant markets in which we have assessed the effects of the Merger. We first define the product markets. Then we define the geographic markets.

Product market definition

Competition for the market

6.4 Rail franchises are awarded by the DfT through tender competitions, which are a form of competition for the market. Transport companies bid to become the operator of the franchise for the term specified in the DfT's invitation to tender. Competition in passenger rail services currently takes place primarily through the competitive award of franchises and the process of competition for the market delivers significant benefits for passengers.

6.5 Each invitation to tender for a franchise invites bids from interested parties and sets out the minimum specifications that bidders must be able to deliver. The bidders submit a combined price and service specification offer, which may go beyond the minimum specification, and the DfT then assesses each bid against its preferred criteria. Given that each franchise is different from others and that parties submit bids to run a specific franchise, the competitive constraint in franchise tenders is derived from the ability of the DfT to award the franchise to other bidders. Therefore, it is appropriate to aggregate franchise contracts into the same product market as a way of assessing competition for the award of franchises.[83]

6.6 This is consistent with the approach adopted in recent cases.[84] The Parties told us that they saw no reason to depart from this approach in the present case.

6.7 We conclude that the relevant product market is the award of rail franchises.

[82] *Merger Assessment Guidelines*, paragraph 5.2.2.
[83] *Merger Assessment Guidelines*, paragraph 5.2.18.
[84] See, for example, CMA (2014), *First TransPennine Express/TransPennine Express* (ME/6586/16), paragraph 3; CMA (2014), *Intercity Railways Limited/ICEC Franchise*, (ME/6506/14), paragraph 34 and European Commission (11 August 2010), *Deutsche Bahn/Arriva* (M.5855).

Competition in the market

6.8 The Parties overlap in the provision of public transport services, including bus services and rail services.

6.9 Passengers make choices between various modes of transport that are available for a particular journey. Where passengers face multiple travel options, either of the same mode or different modes of transport, their choices are driven by a range of factors, including:

(a) the cost of the journey;

(b) journey time;

(c) in the case of public transport, time spent travelling to the starting rail station or bus stop and time taken travelling from the end rail station/bus stop to the passenger's ultimate destination;

(d) frequency and any waiting time including that due to an interchange; and

(e) other factors such as personal preferences, punctuality, variance in journey time compared to the timetabled journey time, the reliability of different modes, general service quality and whether the passenger is travelling alone or in a group.

6.10 A passenger's choice of mode of transport and their ability to substitute between different options (within the same mode or across modes) depends on these factors, which may collectively be measured in terms of cost by calculating GJC.[85]

6.11 The Parties told us that it was not necessary to reach a general conclusion on the scope of the relevant product markets as it would be possible to undertake detailed individual analysis of overlaps raising potential competition concerns.[86]

Competition between different modes of transport

6.12 We consider a reasonable starting point for analysis is that, other things being equal, a service competes more closely with another service of the

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[85] Passengers trade-off the various factors in their choice of preferred travel option and seek to minimise the overall 'cost' of their journey, which includes the fare and the time elements. For example, passengers may be willing to trade-off a longer journey time on a slow/stopping service if it serves a stop closer to their ultimate destination.

[86] Arriva response to issues statement, paragraph 2.2.

same mode of transport on a flow/route than with a service using a different mode of transport.[87]

6.13 The Parties told us that they generally agreed with this starting point.[88] For example, the Parties noted that their bus businesses generally assessed competitive conditions by considering competitors within the same mode of transport. However this could vary according to the particular local circumstances and a range of factors could influence passenger choice including distance, price, journey time and frequency and directness of service.

6.14 A number of transport operators, PTEs and passenger groups also told us that this was a reasonable starting point for our assessment.

6.15 The Parties told us that the data from the National Travel Survey (NTS), which is a national survey carried out by the DfT, showed that passenger preferences for a particular mode of transport varied with the length of the journey.[89] For example, for journeys between two and five miles, bus journeys account for around 11% of journeys, compared to 1% for rail. However, for journeys of 25 miles of more, rail journeys account for 14% of total passenger journeys compared to only 1% for bus.

Private transport

6.16 The Parties also told us that private transport (eg taxis/private hire vehicles, private car and cycling) was an increasingly important constraint on public transport.[90] A number of competing transport operators and PTEs also told us that private transport may compete with bus and rail services.[91]

6.17 The Parties said that the majority of travel across the North of England was primarily undertaken by car and for journeys of more than two miles it accounted for 78 to 82% of total journeys.[92]

6.18 In relation to competitive interaction between rail and the private car, the Parties submitted internal Arriva analysis based on census data, which suggested that across 15 urban centres in the Northern Franchise area,

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87 This could, for example, be because services of the same mode of transport are more likely to offer a similar set of GJCs.
88 Arriva initial submission, paragraph 6.4.
89 [✂]
90 The Parties noted that Uber was now available across much of the area covered by the Northern Franchise and had significant capabilities to disrupt existing transport models, for example by launching its bus style service, UberHop. The Parties also told us that a variety of new models that spanned the public/private divide such as car clubs, cycle hire schemes and ride sharing schemes should be considered.
91 [✂] told us that the private car competed with public transport. This view was also shared by the [✂].
92 [✂]

rail's share of journeys had increased from [5-10]% to [10-20]% between 2001 and 2011.[93] The Parties said that this was not a result of increasing passenger commuting distance, since the growth in rail's modal share was stable across different commuting lengths (ie the share of rail had not increased faster for longer commutes). The Parties said that this analysis indicated an increase in mileage per passenger, which in turn implied a modal shift to rail taking place at longer distances and that Arriva's view was that such modal shift was likely to have come from the car. The Parties also said that the share of rail could vary significantly across rail routes. For example, the Parties' analysis showed than on the Aire Valley to Leeds Northern Franchise route, rail's share of journeys was significantly higher than in other areas. On the Ilkley to Leeds section, rail had a share of [60-70]% of all journeys. Arriva submitted that this was a result of the significant investment on the Aire Valley to Leeds route, which had benefited from the introduction of frequent and modern electric trains.

6.19 In relation to competitive interaction between bus and the private car, the Parties submitted survey evidence commissioned to understand perceptions and passenger choices following the introduction of the Sapphire range of bus services, which showed that the improvements had led to significant switching from car. For example [20-30]% of respondents had made the journey by car before the introduction of the Sapphire services.

6.20 We note that bus fares have increased in real terms since 2005, whilst passenger demand has been relatively stable over this period (see Figure 1 below).[94,95] In particular bus fares have risen significantly faster than petrol prices, without any significant impact on bus passenger demand (see Figure 2 below).[96] This suggests that switching from bus to car usage in response to a small change in the relative costs of the two modes may be limited.[97]

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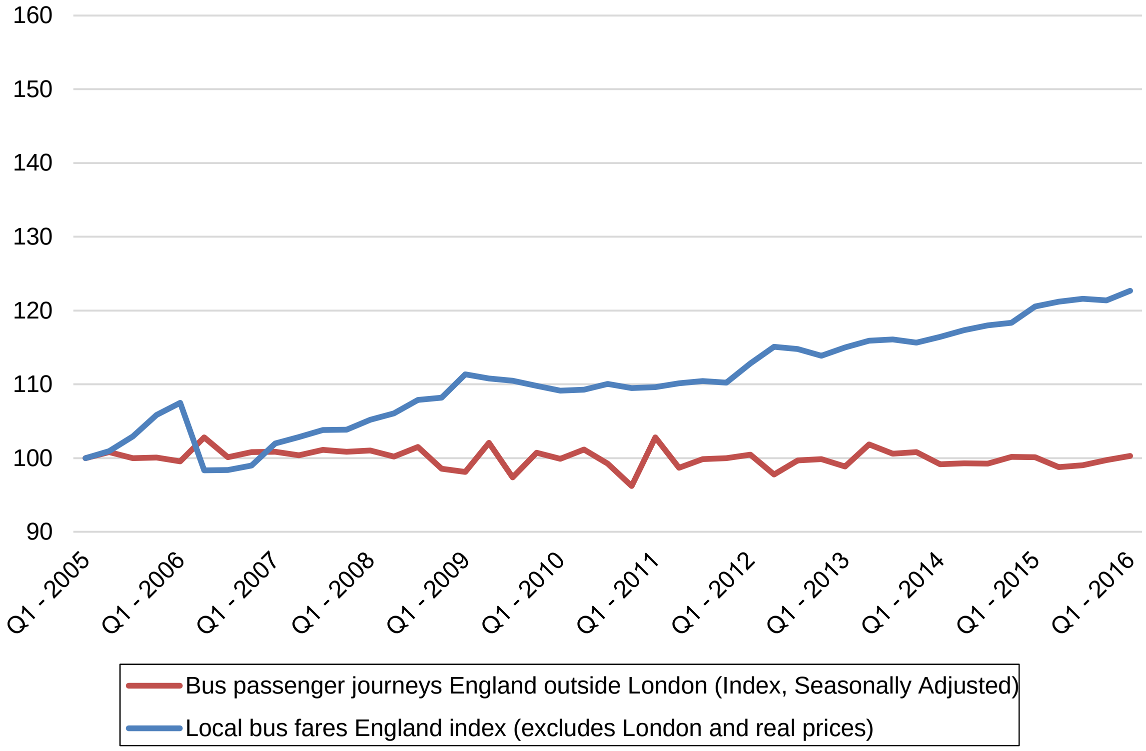
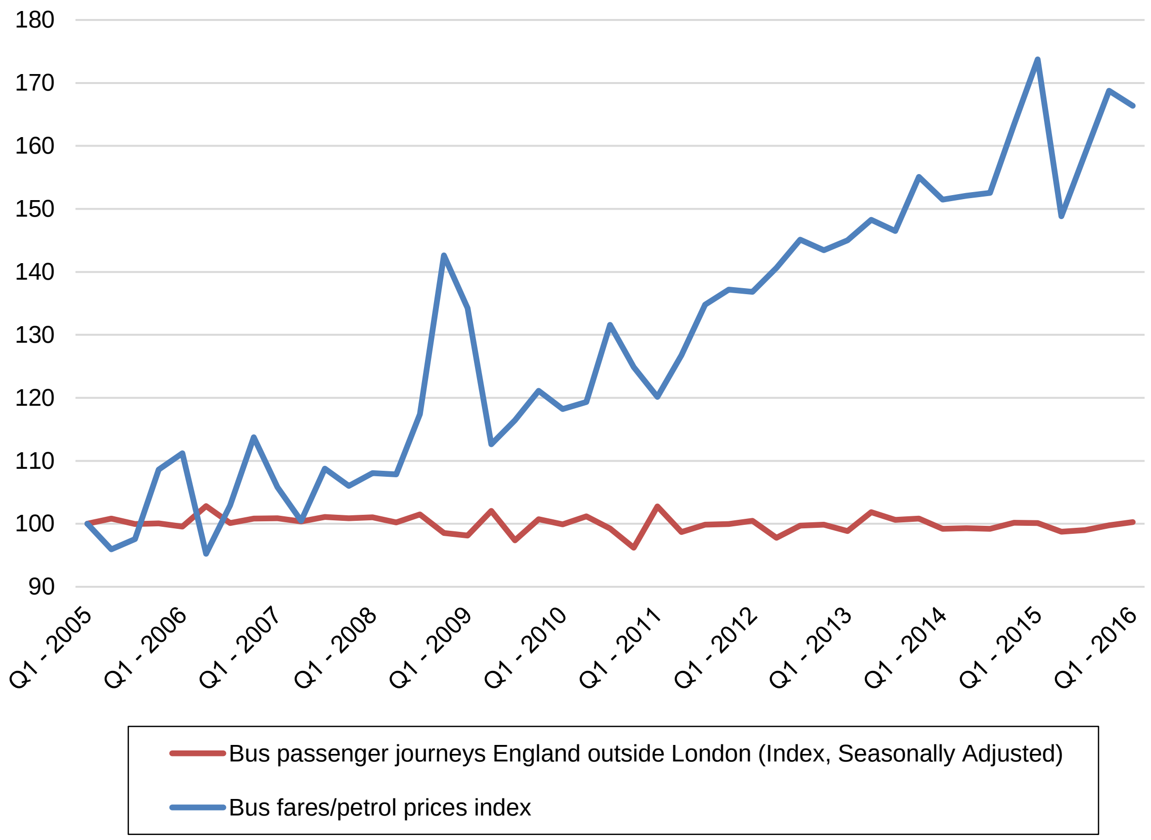
[93] [✂]
[94] DfT (2016), Bus statistics.
[95] OECD, Inflation data.
[96] Department for Business, Energy & Industrial Strategy (2016), *Monthly and annual prices of road fuels and petroleum products*.
[97] The comparison does not control for other factors which might affect journey numbers over time. In response to provisional findings, the Parties also noted that there may be other extraneous reasons that bus patronage appears to have remained stable while bus fares have risen, including as a result of the introduction of the English National Concessionary Travel Scheme.

Figure 1: Real bus fares and passengers – England excluding London (Q1 2005 to Q4 2015)



Source: DfT bus statistics/CMA calculations.

Figure 2: Index of bus fares vs petrol prices and bus passenger demand – England excluding London (Q1 2005 – Q4 2015)



Source: DfT bus statistics and petrol prices/CMA calculations.

6.21 In our review of Arriva's internal documents, we found a small number of examples of benchmarking between modes of transport, including instances where Arriva noted significant changes in the price of petrol and the impact on the cost of private transport.[98] The Parties also cited an example of [✄].[99]

6.22 Private transport may in some instances be one of the factors that the Parties may consider in setting their overall offer. However, the extent to which private transport is an actual constraint would vary on a flow-by-flow basis. In addition to variations in relative prices on a flow-by-flow basis, other factors such as relative journey times, accessibility and personal preferences will also vary on a flow-by-flow basis.

6.23 We note that the evidence submitted by the Parties in relation to competition from private transport does not directly consider whether it would be profitable for the Parties to increase the prices of their bus or rail services

[98] [✄]
[99] [✄]

given the presence of private transport.[100] As such, it does not fit within the hypothetical monopolist framework that the CMA employs to define the boundaries of the relevant market in merger inquiries.[101]

6.24 We also note that in differentiated markets, as in the case of transport services, the CMA is mindful of asymmetric constraints. The evidence we have seen indicates that there has been a user shift from private transport to public transport. However, we have not seen any quantitative evidence which suggests that a significant proportion of passengers would switch from public transport to private transport in response to a small change in the offerings (relative prices and service quality) such that a hypothetical monopolist of public transport would find it unprofitable to increase prices or reduce service quality.

6.25 As noted above, the extent of competition between public and private transport may vary by flow. We considered submissions by the Parties in relation to potential constraints from private transport, where relevant, in the competitive assessment of overlapping flows. However, we did not see any evidence that private transport exercises a constraint on the Parties that would be sufficient to prevent fare increases on specific flows.

6.26 In our competitive assessment of the overlapping rail flows, we note that the MOIRA model we use to test the similarity of overlapping rail services (see paragraph 10.18) implicitly takes into account competition from other modes of transport, including private transport.

Passenger journey purpose

6.27 The extent of substitution between transport modes may also be considered by journey purpose.[102] For example, leisure passengers may generally be more sensitive than other types of passenger to changes in prices and therefore might be more likely to substitute between different services. The Parties told us that leisure passengers also have the option of staying at home instead of travelling. In contrast, commuters and business passengers

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[100] In applying the hypothetical monopolist test, the CMA assesses whether the hypothetical monopolist could profitably raise the price of at least one of the products in the candidate market by at least a small but significant amount over a non-transitory period of time (ie by a 'SSNIP' – a small but significant and non-transitory increase in price).
[101] *Merger Assessment Guidelines*, paragraphs 5.2.9–5.2.20.
[102] The CC previously considered the extent to which leisure travel could be segmented from business travel and commuting due to different sensitivities in price, journey time and duration (CC, *Review of methodologies in transport inquiries*, paragraphs 16 & 17. See also CMA (2014), *Intercity Railways Limited/ICEC Franchise* (ME/6506/14), paragraph 34).

generally need to travel at specific times of day and are likely to be less price sensitive.

6.28 We consider whether the market should be further segmented, eg between leisure travel and business travel and commuting. The relevant market segmentation is, however, not always straightforward. For example, the type of ticket purchased by a passenger (eg off-peak) may not reveal the journey purpose and some passengers might shift between ticket types in response to a price rise in circumstances where the purpose of their journey has not changed. We therefore consider different sensitivities of customer groups to price, journey time and journey duration, where relevant evidence is available, in the flow-by-flow competitive assessment.

Geographic market definition

Competition for the market

6.29 Rail franchises are awarded across Great Britain and attract a range of domestic and international bidders. We conclude that competition for the award of rail franchises takes place on a national basis.

Competition in the market

6.30 Passengers travel between a specific point of origin to a specific point of destination (ie a point-to-point journey) and, as such, demand is for travel between two points. We describe these journeys between start and end points as 'flows'. A flow may constitute an entire bus or train route or it may be only part of a longer route.

6.31 As a starting point for analysis, we identify overlaps between the Parties' services and assess competition between transport options on a flow-by-flow basis.

Route and flow level assessment

6.32 We note that certain aspects of the offer to both bus and rail passengers are set at the route rather than flow level (for example, timetables and service quality). Flows therefore cannot always be fully distinguished from the routes of which they are a part. Furthermore, flows can be part of more than one route, particularly on 'main corridors' where a number of routes converge from a number of termini. These factors may limit the ability of operators to vary offerings at the flow level but competition at the flow level can impact offerings at the route level.

6.33 We therefore consider the possible effects on competition of the Merger on routes as well as flows.

Identifying overlaps between existing (pre-Merger) Arriva and Northern Franchise services

6.34 We identify overlaps between (i) Arriva rail services and Northern Franchise services and (ii) between Arriva bus services and Northern Franchise services as follows:

(a) Rail services providing journeys between the same two rail stations.[103]

(b) Bus and rail services where the catchment area of a bus service contains rail station(s) or that of a rail service contains bus stops.[104]

6.35 In relation to paragraph (b) above, we consider the appropriate catchment area to adopt in identifying overlapping services and the implementation of the relevant catchment areas into our analysis of the competitive effects of the Merger.

6.36 In previous inquiries, the CMA's predecessor bodies have typically adopted a 1,200-metre catchment area for identifying overlaps between bus and rail services and have flexed the distance to take account of differences in the availability of transport options (for example distinguishing between urban and rural services).[105]

6.37 The Parties told us that adopting a 1,200-metre catchment area around rail stations was likely to overstate the degree of overlap between its bus services and the Northern Franchise. The Parties told us that this was particularly relevant for intra-urban flows, which had relatively short journey times and where a 1,200-metre catchment area could therefore yield counter-intuitive results (such as the journey taking the passenger further away from the flow destination than at the flow origin).[106] The Parties noted that in previous inquiries, the CMA and its predecessors had adopted a 300-metre catchment area for bus-rail overlaps.[107]

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[103] Rail-rail overlaps are identified on a settlement to settlement basis. In instances where a settlement has more than one station, the stations are combined. For example, Wakefield includes Wakefield Kirkgate station, Wakefield Westgate station and journeys to/from Wakefield BR (which is a ticket that is valid for all Wakefield rail stations).

[104] In practice this means identifying bus stops which are within the catchment area of the relevant rail stations, since rail services generally have a wider catchment area (see paragraphs 6.39–6.44).

[105] See, for example, CC (2006), *Greater Western Passenger Rail Franchise*, Appendix E, paragraph 8.

[106] Arriva response to issues statement, paragraph 2.16.

[107] In particular, the CC noted that 'within Glasgow, reflecting the much denser provision of public transport, FirstGroup listed bus services and rail routes as overlapping where broadly speaking rail stations are within 300 metres of a bus stop.' (CC (2006), *Greater Western Passenger Rail Franchise,* paragraph 5.4).

6.38 Several third parties also told us that a catchment area of 1,200 metres may overstate the degree of substitutability between bus and rail services.[108] This was likely to be particularly true for services in urban areas with a dense transport network and where passengers would not be willing to walk significant distances in response to variations in fare or other aspects of the offer.

6.39 In order to test the appropriate catchment areas around bus and rail stations, we consider evidence from the NTS, which is a national survey run by the DfT.[109] The NTS includes face-to-face interviews and asks respondents to complete a weekly travel diary, providing details of all trips carried out during the survey week. The NTS collects information on how, why, when and where people travel as well as factors affecting travel. It asks respondents to identify journeys they have made, including those using multiple modes. This includes information on journeys preceding or following a bus or rail journey.[110] Therefore the NTS is useful in identifying the appropriate catchment areas for bus and rail stations.

6.40 We examine NTS data on walking distances involving bus and rail services in the areas of the Northern Franchise.[111] Table 1 below shows average 80th percentile and 90th percentile walking distances for rail and bus services in the areas of the Northern Franchise. Across these measures, rail catchment areas are generally significantly larger than bus catchment areas. The 80th percentile catchment area for walks from home to a bus stop is around 160 metres, whereas for rail journeys it is just under 1,300 metres.[112]

Table 1: NTS walking distances for bus and rail services

Metres

	Mean	*80th percentile*	*90th percentile*
Bus	167	161	483
Rail	674	1,287	1,609

Source: NTS data/CMA calculations.
Note: The NTS data asks respondents to complete the diary on one of seven days for walks of less than one mile and walks of less than 50 yards are not recorded. We therefore adjust the NTS data by assuming that unrecorded walks are all equal to 50 yards. We note that the DfT published research in 2015 on the collection of short walks data and that the NTS will adjust its methodology to ensure that short-walks are better recorded in future years.

[108] See, for example, FirstGroup response to issues statement.
[109] DfT (2016), *NTS Statistics*.
[110] For the purposes of the catchment area analysis we consider walks preceding or following a bus or rail journey. However some passengers may be combining different transport options, which would effectively widen the catchment area of the services. For example, a passenger may travel by bus to a rail station in order to travel on the rail service.
[111] Yorkshire, North-East and North-West England.
[112] We also test the sensitivity of the results to the journey distance, since passenger willingness to walk to transport options could vary with the journey length (eg passengers may be willing to walk further to a rail station if they are making a longer journey).

6.41 In previous inquiries we identified overlaps where the 80% catchment area of a bus service overlapped with the catchment area of the nearest rail station. This was a cautious approach and was designed to capture situations where a substantial proportion of marginal passengers were located at the edges of the 80% catchment areas. We did not adopt this approach in the present inquiry, as it could lead to over-estimating the distances over which the majority of passengers are likely to switch over (ie we would be implicitly assuming that passengers are willing to walk further than they would in most cases).[113]

6.42 We base the size of our catchment areas on NTS data set out in paragraphs 6.39 to 6.40. On the basis of our analysis we use a catchment area of 1,200 metres around rail stations for identifying overlapping services.[114]

6.43 We consider whether a smaller catchment area would be appropriate for intra-urban journeys as passengers may walk shorter distances to bus stops or railway stations for short intra-urban journeys. We consider possible definitions of intra-urban flows and whether data was available from NTS in relation to intra-urban flows.[115] However, the level of aggregation of NTS data to which we currently have access does not allow us to carry out the analysis for urban areas separately. We discuss intra-urban flows in our consideration of filters at paragraph 9.46.

6.44 We note that the choice of catchment area does not have a significant impact on the number of bus and rail flows and routes that were identified as overlapping. 197 bus-rail routes are identified as overlapping using a 1,200-metre catchment area for all areas as compared to 177 when distinguishing urban services using a 400-metre catchment area.

Supply-side substitution

6.45 We note that on the supply side, bus operators may switch their services to or from the overlapping bus and rail flows and routes.[116] Substitution conditions are likely to vary across the overlap areas and we therefore consider supply-side substitution, where relevant, on a flow-by-flow basis.

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[113] We consider whether catchment areas should overlap (as opposed to just touching each other). This argument was made by FirstGroup in its response to the CMA's issues statement. However, we consider that this approach is only justified where such overlaps capture a sizeable number of passengers.
[114] As noted in the *Merger Assessment Guidelines*, we note that catchment areas are a pragmatic approximation for candidate markets and we therefore test the sensitivity of our findings, see paragraph 5.2.25.
[115] For example, flows which begin or end in the same town and where the flow has a journey time of less than 15 minutes by rail might be defined as intra-urban.
[116] Subject to being required to give 56 days' notice of changes to routes to the Traffic Commissioner (see the discussion of bus regulation in Section 8).

Network competition

6.46 Bus and rail operators run a series of interconnecting services. On the demand side, some passengers may purchase network tickets rather than route or flow-specific tickets. For these passengers, the relevant market may be the network rather than the route or flow. As above, we consider supply-side substitution, where appropriate, when assessing the relevant networks.

6.47 We consider the effects of the Merger on transport networks in our competitive assessment (see Section 12).

7. The effect of the merger on competition for rail franchises

7.1 We consider whether the creation of the relevant merger situation in this case has resulted or may be expected to result in an SLC in the award of rail franchises.

The views of the Parties

7.2 The Parties told us that the award of the Merger would not reduce the number of bidders for future franchises and would not confer any incumbency advantages on Arriva for future franchise awards.[117]

Third party views

7.3 Third parties did not express concerns that the Merger would result in a more advantageous position for Arriva in future franchise competitions.

7.4 The DfT told us that even when incumbent operators had been successful in winning rail franchise competitions, there had been aggressive competition between high quality bidders. The DfT also told us that it was currently working to increase the pool of bidders for rail franchises.

CMA assessment

7.5 We consider whether the Merger would reduce competition for the award of future rail franchises.

7.6 We examined the number of bidders for rail franchises and considered whether the Merger would create any incumbency advantages for Arriva which could reduce competition for future franchise awards.

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[117] Arriva initial submission, paragraphs 10.5.1 & 10.5.2.

7.7 We considered evidence from published literature on tender competition, submissions from the DfT and evidence of outcomes from previous rail franchise awards.

7.8 The rail franchise tendering process is designed to minimise incumbency advantages such that bidders are not expected to enjoy significant incumbency or scale advantages as a result of previous franchise bids or awards. We reviewed the identity of successful bidders in previous franchise awards, which suggested that incumbency advantages were not material. No evidence suggests that the Merger would reduce the number of bidders for rail franchises.

7.9 We therefore conclude that the Merger has not resulted in or may not be expected to result in an SLC in the award of rail franchises.

8. Regulatory constraints on rail and bus services

8.1 As described in the industry background section, passenger rail and bus services are subject to varying forms of regulation. In order to provide a framework for assessing the competitive effects of the Merger, we consider in this section the extent to which regulation and contractual obligations restrict the Parties' ability and incentives to change fares and adjust non-price aspects of their rail and bus services (such as service quality and frequency).

8.2 Regulation of rail and bus services over many years has played an important role in shaping the dynamics of the industry today. For example, the Parties told us that regulation of rail fares since privatisation had maintained differentials in fare levels between the North of England and some other parts of Great Britain. The Parties also told us that there remained some significant anomalies in rail fares on the Northern Franchise according to whether a service was operating inside or outside a PTE area because, for some 20 years prior to privatisation, PTEs had been setting rail fares.[118] This may affect the competitive dynamics between bus and rail services in the Northern Franchise area.

[118] [✂]

Regulatory constraints on passenger rail operators

Fare regulation

8.3 The Parties' franchised rail operations are subject to fare regulation which sets the maximum price that franchised TOCs can charge for certain fares. Around 45% of fares are regulated (by the Secretary of State in England and Wales and Scottish Ministers in Scotland).[119] Regulated fares are set by a formula based on the RPI figure for the previous July, and for many years with a degree of flexibility (called the 'fares basket' or 'flex'). All other fares are set commercially by train operators. Only certain fares are regulated, but at least one fare available on a flow is generally regulated.

8.4 The fare types subject to regulation are set out in Table 2.

Table 2: Fare regulation

Types of fares		*Description*	*Regulated?*
First class	Single	Premium, anytime	No
First class	Return	Premium, anytime	No
Standard (anytime)	Single	Standard, anytime	No
Standard (anytime)	Return	Standard, anytime	Yes
Saver (off-peak)	Single	Off-peak, valid for a specific date	No
Saver (off-peak)	Return	Off-peak, valid for a specific date	Yes*
Advanced	Single	Booked in advance, train-specific	No
Season ticket	Weekly	Multi-period ticket	Yes*
Season ticket	All others	Multi-period ticket	No
Network tickets	All	Valid on multiple routes/flows	No

Source: House of Commons briefing paper on rail fares and ticketing, March 2016, Arriva website.
* When there was an equivalent fare available in 2003.

Ability to increase regulated fares

8.5 The previous Northern franchise agreement specified a cap on regulated fares which required that the price of a basket of these regulated fares could not increase above RPI+1%. Furthermore, the price of any individual fare could not increase above RPI+3% (commonly referred to as a 'flex of 2%').

8.6 The Parties told us that this regulation was being tightened as the Conservative government's election winning manifesto pledged to cap all franchise regulated fares to RPI+0% for a period of five years from the general election.[120] It also pledged to abolish the ability to flex individual regulated fares (without stated limit of time).

[119] House of Commons library briefing paper (2016), *Rail fares and ticketing* (SN01904).
[120] Arriva response to issues statement, paragraph 6.1.1.

8.7 The DfT confirmed this policy change, which has been publicly announced.[121] The new rules will be implemented by the Secretary of State as a change to franchise agreements. [✂].[122]

8.8 We consider whether the Parties would have the ability to deviate from the fare regulation policy set by the DfT. The Parties told us that [✂]. They also told us that [✂].[123] The DfT confirmed that franchised TOCs are obliged to follow fare regulation policy.

8.9 We therefore conclude that the Parties do not have the ability to flex regulated fares under the current policy framework.

Constraints on unregulated fares

8.10 We consider the extent to which unregulated fares are constrained by the level of regulated fares.

8.11 The Parties told us that a number of unregulated fares would be effectively capped by the level of regulated fares.[124] In particular, the Parties told us that a number of fares were now at levels just below the regulated fare. More generally, the Parties told us that regulated fares created a perception amongst passengers about what constituted a 'fair' amount to pay for a fare where regulated and non-regulated tickets were both available for a particular journey.

8.12 The DfT confirmed that unregulated off-peak single tickets are often priced just below the level of off-peak regulated return tickets, limiting the ability for franchised TOCs to increase off-peak single fares.

8.13 Some other unregulated fares may effectively be 'quasi-regulated' as they are directly linked to the level of regulated fares. For example, the DfT told us that the price of unregulated monthly and annual season tickets was linked to the price of regulated weekly season tickets.[125] Where this is the case, the regulated fares will act as a constraint on certain unregulated fares, for example where unregulated fares are set just below the regulated fare or linked to the level of the regulated fare. We consider the constraint that regulated fares impose on unregulated fares on a flow-by-flow basis as

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[121] DfT press release (2015), 'Earnings outstrip rail fare increases for first time in a decade'.
[122] As part of the process of [✂]. [✂].
[123] [✂]
[124] Arriva response to issues statement, paragraph 6.3.3.
[125] A monthly season ticket is typically priced at four times the level of a weekly ticket and an annual ticket at forty times the level of a weekly ticket.

the mix of regulated and unregulated fares available to passengers varies by flow.

8.14 The Parties also told us that unregulated fares which were not constrained directly by fare regulation would be constrained by other commercial factors. The Parties highlighted previous decisions by the CMA's predecessor bodies which noted that:

(a) significant increases in the standard class 'turn-up-and-go' single and open return fares or cheap day returns would probably result in most passengers switching to regulated saver tickets whenever possible;

(b) significant increases in first class fares might give incentives to business passengers to switch to travel standard class;[126] and

(c) increases in low-price advance-purchase return fares would defeat their purpose as yield management tools were designed to transfer peak loads to off-peak services and fill unused seats.[127]

8.15 We note that off-peak unregulated fares such as cheap day returns are less likely to be constrained by fare regulation as they may be priced significantly below regulated fares. However, we consider on a flow-by-flow basis in the competitive assessment whether unregulated fares which are not constrained by the level of regulated fares may instead be constrained by commercial factors.

Inter-available, dedicated and routed inter-available fares

- *Inter-available fares*

8.16 Inter-available fares allow passengers to use services operated by any TOC, including both franchised TOCs and OAOs. For example, a passenger with an inter-available ticket travelling from London to Birmingham could choose to travel on services with Chiltern Railways (from London Marylebone), or with London Midland or Virgin Trains (from London Euston). Similarly, passengers can purchase a 'through' ticket that allows them to travel across the network using a single ticket for a journey using multiple different trains by different operators.

8.17 The approach to revenue allocation between TOCs is supported by the Ticketing and Settlement Agreement (TSA). For franchised TOCs,

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126 In practice there is limited first class provision on the Northern Franchise.
127 CC (2004), *National Express Group plc and Greater Anglia franchise*, Appendix C (paragraph 47).

participation in the TSA will generally be a requirement of their franchise agreements. The TSA is overseen by the Association of Train Operating Companies (ATOC) and the Retail Settlement Plan (RSP).

- *Routed inter-available fares v fully inter-available fares*

8.18 Inter-available fares are (by definition) accepted across multiple TOCs.

8.19 If the fare for a journey shows no route or if the route is described as 'any permitted', a customer may use any of the routes listed in the national routeing guide to travel between an origin and destination, subject to any time and/or operator restrictions that may apply to the ticket held.[128]

8.20 We define these fares, which permit travel on any route and on any TOC, as 'fully' inter-available fares. From a passenger's perspective, fully inter-available fares offer the widest choice of routes and TOCs, and therefore the greatest choice of services.

8.21 'Routed' inter-available fares may be offered by TOCs on some flows and are distinguished from fully inter-available fares as, while they are valid on any TOC, they are only valid on services operated via a particular route (eg 'via Altrincham'). We define routed inter-available fares as fares for tickets that permit travel on a specific route on a flow but on any TOC on that route.

8.22 Routed inter-available fares are priced differently to fully inter-available fares. In the same way as fully inter-available fares they are likely to be constrained by the commercial and competitive conditions on the flow, eg by dedicated fares.

8.23 Where fares are valid for travel on different TOCs, there needs to be a mechanism to set a price which is acceptable to the individual TOCs. The TSA addresses this through the specification of a 'lead operator' on each route, which is typically the operator with the greatest commercial interest on that route. The lead operator then sets the fares for any inter-available fares on each route, and all TOCs are required to accept passengers using these fares. Many of these fares will also be regulated. However, some will be unregulated and it is on these fares where the lead operator will have commercial flexibility, depending on the relevant competitive position on the flow.

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[128] ATOC, *Routeing guide*.

- *Dedicated fares*

8.24 Any operators that are not the lead operator on a route have the option of offering a ‘dedicated fare’ which is only available on their own services, at a lower price than the inter-available fare.

8.25 Secondary operators (ie not the lead operator) on a flow may offer dedicated ‘walk-up’ fares valid on any service offered by that TOC with no requirement to book in advance. In addition, both the lead operator and secondary operators may offer dedicated ‘advance purchase’ fares which must be booked in advance and which are valid only on a specific train operated by that TOC.

8.26 The price for these dedicated fares can provide competitive pressure on the price of inter-available fares (whether fully inter-available or routed inter-available).

8.27 The Parties told us that the short-distance nature of many of the flows on the Northern Franchise limited the opportunity for introducing advance fares. However, [✄].

- *Inter-availability of fares as a potential constraint on the Parties’ ability to set rail fares*

8.28 We examine the extent to which inter-availability of fares constrains the Parties’ ability to set fares. Our analysis shows that:

(a) when the Parties are the lead operator on a flow, they have some control over the unregulated fully inter-available fares within the constraints imposed by fare regulation (ie where regulated fares effectively set a ceiling for the unregulated fare or where the unregulated fare is linked to the regulated fare). However, dedicated fares (or even the threat of the introduction of dedicated fares) from other operators could act as a competitive constraint on the fully inter-available fare;

(b) when the Parties are not the lead operator on a flow, they have no control over the price of fully inter-available fares on that flow. However, in these circumstances, the Parties may still be the fare setter for routed inter-available fares on that flow. When the Parties set the price of unregulated routed inter-available fares (ie fares valid for travel on TOCs via a particular route, as previously defined), they have some control over these fares within the constraints imposed by fare regulation and by any dedicated fares on the flow; and

(c) the Parties may also have the option of changing the level of their dedicated fares, if any, or adding or removing dedicated fares.[129] Should they do so, these fares may be constrained by the degree of competition and the fully or routed inter-available fares.

8.29 Where the Parties are not the lead operator on a flow, we consider whether the identity of the lead operator could be changed. The DfT told us that any TOC that received income from a route may at any time request a change in the identity of the lead operator, but a lead operator itself may not request a change from its designation as the lead operator. The TOC requesting a change of lead operator must serve a notice on the existing lead operator, other operators receiving income from the route and the DfT. The Secretary of State does not have a role in approving the change under the TSA; any disputes between operators over the ownership of a route are resolved by the ATOC Disputes Resolution Committee. However, under the Northern Franchise agreement, ARN cannot agree to a request that it cease to be the lead operator without the Secretary of State's approval.

8.30 On flows with more than one operator, we also note that revenue from inter-available fares must be allocated between the different operators serving the flow. As it is not currently possible to track the actual route that passengers use (and hence the share which should be allocated to each operator), the industry relies on an ATOC-operated estimation system called ORCATS. The ORCATS system allocates the revenues according to a number of factors (eg the service frequency, route, journey times and rolling stock capacity of the operators). The Parties told us that approach meant that operators may only receive a proportion of the additional revenue from any increase in passenger volumes that used inter-available fares. Alternatively, Arriva may benefit if other operators were able to increase inter-available fare volumes on these flows.

8.31 As part of our competitive assessment of overlapping rail flows in Section 10, we consider on a flow-by-flow basis, whether the Parties:

(a) are a lead operator on a flow; and

(b) the role of dedicated fares and other fares, including routed inter-available fares.

[129] Where the Parties sell dedicated advance fares, they may adjust the volume available for sale.

Profit sharing

8.32 The Northern Franchise agreement includes a profit sharing clause such that any profit generated above certain thresholds is shared with the Secretary of State, effectively reducing the level of taxpayer subsidy.

8.33 We consider the effect of the profit sharing clause within the franchise agreement on the incentive for the Parties to increase rail fares, on the basis that any benefit to the Parties of fare increases could be offset, in whole or in part, by a lower subsidy.

8.34 We examined the profit sharing thresholds and the extent to which the Parties would have to outperform their profit forecasts for the Northern Franchise in order to be subject to profit sharing. Although profit sharing does not restrict the Parties' behaviour directly, it may affect the incentives on Arriva to increase the patronage of the Northern Franchise over and above its projected levels. However, this is only likely to be the case in circumstances where ARN is delivering significant passenger growth above the levels included in its plans.

Franchise specification and other regulations

8.35 As set out in the industry background section (paragraph 2.5), the rights and obligations of franchised TOCs are specified through TSRs as part of the franchise agreement negotiated between the franchising authority and the franchisee.

8.36 We consider below the extent to which franchise specifications and other regulations constrain the Parties' ability to adjust non-price aspects of their rail service offering, including service quality, timetables, operational performance and rolling stock.

Timetabling

8.37 Railway timetables are largely fixed in advance in order to comply with the TSR defined as part of the Northern Franchise agreement.[130] The timetable is required to be approved by the Secretary of State as meeting its obligations which include (but are not limited to) providing sufficient

[130] The Northern Franchise agreement includes three TSRs (TSR1, TSR2, and TSR3) which apply for April 2016 – December 2017; December 2017 – December 2019; and December 2019 – the end of the franchise, respectively.

passenger capacity;[131] minimising journey times;[132] and running at evenly spaced intervals where possible.[133]

8.38 The DfT will scrutinise proposed timetable changes to ensure that they comply with TSRs and any timetable changes which the Parties propose would require the prior consent of the Secretary of State.[134]

8.39 The slot allocation process prioritises existing access rights allocated within the franchise agreements. Once any additional service applications (either from OAOs or franchised TOCs) have been successful and resulted in a track access agreement (subject to ORR approval and guidance), the access rights set out in the track access agreement are converted into the working timetable through the process outlined in Part D of the Network Code.

8.40 The timetabling and timetable recasts are managed by Network Rail and based on demand traffic forecasts which are carried out following a transparent process that includes public consultations.[135] In the case of conflicting requests with equal priority, Network Rail decides which train slot to include into the timetable plan according to the criteria set in Part D of the Network Code, eg to make journey times 'as short as reasonably possible' and 'enabling operators of trains to utilise their assets efficiently'. Network Rail can modify either or both train slots if timetable capacity exists.[136]

8.41 OAOs do not have any franchise agreements and therefore have greater commercial flexibility. However, they are still bound by track access agreements with Network Rail. Although the original design of an OAO timetable is not specified in any franchise agreement, it still needs to be approved by ORR and codified in a track access agreement. The agreement will specify the routes and timings that the operator can run, which would restrict the changes the Parties could make to open access schedules, station calls and journey times.[137]

8.42 It is possible for OAOs to apply to make changes to their scheduling, although applications need to be assessed and approved by ORR. In doing

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[131] Northern Franchise agreement, Schedule 1.1, paragraph 7.1.
[132] Northern Franchise agreement, Schedule 1.1, paragraph 5.11(b).
[133] Northern Franchise agreement, Schedule 1.1, paragraph 5.11(a).
[134] Northern Franchise agreement, Schedule 1.2, paragraph 4.1.
[135] The Long Term Planning Process identifies capacity requirements and interventions to meet them. This process has been designed to enable Network Rail and industry stakeholders to respond flexibly to growing demand for rail services (including entirely new services), while planning for the network's long-term capability up to 30 years ahead.
[136] The Network Code also contains rules for access dispute resolution, either through mediation or a determinative process, such as the timetabling panel, for which ORR is the final appeal body.
[137] *Grand Central Railway Limited Track Access Contract*, Schedule 5, 27 May 2016.

so, ORR would be particularly aware of capacity constraints, and abstraction of value from existing franchise holders who will have generally based their bids on the assumption of no OAO competition. This would imply that although it is difficult to increase the number of services an OAO is operating, OAOs may be able to reduce or remove services for commercial reasons subject to approval by ORR.

8.43 We therefore conclude that the Parties have limited flexibility to change the timetables of their rail operations following the award of a franchise or open access rights.

Operational performance

8.44 The Northern Franchise agreement includes an operational performance framework with financial bonuses/penalties in order to imitate the incentives associated with competition.[138]

8.45 In particular, the operator will be fined where cancellations, delays, or short formations (ie lower capacity on a train) fall below specified benchmarks.[139] The value will depend on performance levels, and is capped at a maximum penalty of c.£[✂] million (adjusting for inflation).[140] This framework provides a direct financial incentive against the Parties degrading their rail services in favour of overlapping bus services.

Rolling stock

8.46 The Northern Franchise agreement includes a list of the rolling stock which the operator is permitted to use. The starting point for this is the fleet already operating on the franchise.[141] However, it recognises that due to a combination of higher capacity obligations and existing leases expiring, new trains will be required.

8.47 For new trains, the franchise agreement segments these into proportions which are ‘specified’ and ‘unspecified’. For both sets, the Northern Franchise agreement defines the configuration (ie number of cars/carriages) and number of seats, but for the ‘specified’ segment, it also defines the class (ie

[138] Northern Franchise agreement, Schedule 7.1.
[139] Note that the operator can also earn a financial bonus if it outperforms on cancellations and/or delays.
[140] Northern Franchise agreement, Schedule 7.1, paragraph 3.6.
[141] Northern Franchise agreement, Schedule 1.7, Table 1.

the specific vehicle type) and lessor,[142] whilst for 'unspecified' it merely requires certain characteristics (eg fuel type, top speed, etc).[143]

8.48 Furthermore, the deployment of this fleet is included in the Northern Franchise agreement. This is because it will need to be consistent with scheduled capacity, speed requirements, and fuel limitations (eg areas of electrification). Therefore, the Parties may not be able to change which trains are supporting which specific flows/routes.

8.49 The rolling stock used by Grand Central is specified in its track access agreement.[144]

8.50 We therefore conclude that the Parties have limited ability to adjust their rolling stock in response to competitive pressures.

Staff levels

8.51 The majority of operational staff for ARN (around [✂]) have been retained from the previous Northern Franchise operator via a transfer of undertakings (protection of employment), commonly known as TUPE. This approach means that these employees retain certain rights and controls based on their previous contracts. This limits the Parties' ability to vary contracts for these employees. Moreover, staffing levels are governed by the Northern Franchise agreement.

Committed obligations

8.52 Commitments made by franchised TOCs as part of the franchise bidding process are formally included in franchise agreements as 'committed obligations'. There are a large number of other committed obligations which are specified in the Northern Franchise agreement, some examples of which include providing Wi-Fi on all trains by 2020, maintaining secure stations and car parks, increasing the diversity of the workforce, implementing a 'Proud to be Northern' employee cultural change campaign and replacing all lights in stations and depots with LEDs.[145]

Ability to deviate from the franchise agreement

8.53 Where enforcement of the agreement may be required, it is the DfT which is responsible for monitoring the delivery of franchise agreements on behalf of

[142] Northern Franchise agreement, Schedule 7.1, Table 2.
[143] Northern Franchise agreement, Schedule 7.1, Table 3.
[144] *Grand Central Railway Limited Track Access Contract*, Schedule 5, 27 May 2016.
[145] These committed obligations are set out in Schedule 6 of the Northern Franchise agreement.

the Secretary of State. Breaches due to force majeure events (eg adverse weather conditions) are not penalised. Franchised TOCs are required to submit performance management reports on a regular basis and the DfT has a dedicated team responsible for monitoring compliance.

8.54 In the case where a franchise agreement is contravened, the Secretary of State has the power under the Railways Act 1993 to make an enforcement order or impose a financial penalty.[146] The Secretary of State is not required to issue an enforcement order, for example where the relevant operator has taken steps to achieve compliance with the franchise agreement or where he considers that the contravention is trivial (s55(1), Railways Act 1993).[147]

8.55 In the event of a contravention, an enforcement order may require the operator to pay a financial penalty of up to 10% of the TOCs' turnover (s55(7A), Railways Act 1993). The Secretary of State is able to agree with the operator whether, instead of paying the penalty, it will make an investment in passenger services, in which case, the franchise agreement would be amended to include this commitment.

8.56 In most cases, the franchise agreement itself also provides the Secretary of State with additional means of enforcement, in particular where performance benchmarks in relation to capacity, cancellations and punctuality are not met. This may include the requirement that the franchise operator produce a plan to remedy the breach, to enter into an agreement giving such a plan contractual force or, in some cases, to terminate the franchise.

Reputational considerations

8.57 The Parties told us that their relationship with the DfT was of fundamental importance both in terms of current and future franchises.[148]

8.58 We note that reputational considerations may be important to TOCs in bidding for future franchises. Although reputation may be an important consideration for franchised TOCs, we have not seen any evidence that reputational considerations are sufficient to restrict the Parties' ability and incentive to adjust their commercial behaviour on individual flows and routes.

[146] DfT (2008), *Enforcement Policy: Rail Franchise Agreements and Closures*.
[147] The legislation does not define what constitutes a 'trivial contravention' but certain aggravating features would prevent a contravention from being classified as such (eg where steps are not taken to remedy a contravention after it has been identified).
[148] Arriva initial submission, paragraphs 7.10 & 7.11.

Time limitations on franchises

8.59 The Parties also told us that the nature of the rail franchising model in Great Britain meant that there was no certainty that a franchise operator would hold a particular franchise beyond the short to medium duration of the relevant franchise agreements.[149]

8.60 The Northern Franchise was awarded to ARN for up to ten years. Although the ATW franchise expires in 2018 and the CrossCountry direct award in 2019 (see paragraph 3.6), we cannot exclude the possibility that Arriva will win the franchises in the next bidding round. In any event, the Parties have the ability to adjust rail fares at least twice per year prior to franchise expiry (subject to fare regulation). The time limitation on the franchises is therefore not sufficient to remove the incentive for the Parties to increase rail fares.

Summary of CMA assessment – ability to increase rail fares and/or degrade non-price aspects of the rail service offering

8.61 We conclude that the Parties do not have the ability to flex regulated fares under the current policy framework.

8.62 We note that regulated fares may constrain the level of some unregulated fares. This is examined on a flow-by-flow basis given that the mix of regulated and unregulated fares available to passengers and the level of competition faced by TOCs will vary on a flow-by-flow basis.

8.63 We examine the extent to which inter-availability of fares constrains the Parties' ability to set fares and find that:

(a) when the Parties are the lead operator on a flow, they have some control over the unregulated fully inter-available fares within the constraints imposed by fare regulation and from the availability and price of any dedicated fares on the flow;

(b) when the Parties are not the lead operator on a flow, they have no control over fully inter-available fares on that flow but may be the fare setter for routed inter-available fares on that flow. When the Parties set the price of unregulated routed inter-available fares they have some control over these fares within the constraints imposed by fare regulation and by any dedicated fares on the flow; and

[149] Arriva initial submission, paragraphs 7.10 & 7.11.

(c) the Parties may also have the option of changing the level of their dedicated fares, if any, or adding or removing dedicated fares.[150] Should they do so, these fares may be constrained by the degree of competition and the fully or routed inter-available fares.

8.64 We conclude that the Parties have limited ability to change non-price aspects of their franchised rail service offering, including in relation to timetables, rolling stock and service levels.

8.65 The Parties may have greater ability to change some non-price aspects of their open access services, such as service quality, although track access agreements restrict the timetables of open access services and the rolling stock used.

Regulatory constraints on bus operators

Commercial bus services

Fares

8.66 Fares on commercial bus services are unregulated. However, some local authorities do impose forms of regulation on the choice of fares offered by bus operators, in particular in order to promote the use of bus services in a multi-operator market.

8.67 LTAs now have statutory powers to create, and require operators to participate in, bus multi-operator ticketing schemes, including network tickets.[151]

8.68 Multi-operator schemes have a limited impact on most aspects of a service, as they do not dictate specific requirements for a particular route. However, they can provide a constraint on fares. This is because the fares on the scheme will usually be decided by a separate management committee. The exact structure of this committee will differ depending on the circumstances, but will usually include representatives of the operators, the LTA, and sometimes a passenger representative.[152]

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[150] Where the Parties sell dedicated advance fares, they may adjust the volume made available for sale.
[151] Multi-operator tickets may be extended to provide a multi-modal ticket offer (eg such that they are valid on bus and rail services in a local area). The DfT has encouraged LTAs to offer multi-modal tickets (see, for example, DfT (2013), *Building better bus services: multi-operator ticketing*). Some multi-modal tickets may only be valid on the services of a single transport operator, although the Parties told us that Arriva did not offer any Arriva-only multi-modal network tickets [✂].
[152] DfT (2013), *Building better bus services: multi-operator ticketing*.

8.69 Therefore, for services where a multi-operator ticket is available, this acts as a reference point which may constrain the Parties' dedicated bus fares or 'Arriva only' network tickets, and so limit price rises. The extent of the constraint may vary for different areas depending on:

(a) the difference in price between dedicated and multi-operator tickets;

(b) the amount of control Arriva has on the multi-operator management committee (and hence how much it can influence the price of these tickets); and

(c) whether the scheme is voluntary or mandatory (and so whether Arriva can choose to leave).

8.70 We consider the extent of multi-operator tickets as a constraint, where relevant, in our assessment of overlapping bus-rail flows in Section 11.

Constraints on timetables and scheduling

8.71 Any changes to a commercial bus route, including cancelling a service outright, need to be notified to the Traffic Commissioner, generally 56 days in advance of the change. In some circumstances, a shorter period is possible, but this is at the Traffic Commissioner's discretion.[153]

8.72 The requirement to give notice of changes to a commercial bus route to the Traffic Commissioner may not act as a constraint on an operator's commercial behaviour. In particular, the Traffic Commissioner is not required to consider the implied impact on either service quality or the competitive environment.

Bus licensing

8.73 Operating any for-profit local bus service requires a Public Service Vehicle licence issued and monitored by the relevant Traffic Commissioners for the area. A separate licence is required for each of these areas where the services operate.[154] Breaching any of the licence conditions can result in the licence being suspended or revoked.[155]

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[153] Change or cancel a bus service, 4 August 2016.
[154] VOSA (2011), *Public Service Vehicle Operator Licensing Guide for Operators*.
[155] How to apply for a PSV licence, 4 August 2016.

Operating performance

8.74 All bus operators are expected to maintain reasonable levels of punctuality, and can be fined for non-compliance. The Traffic Commissioner has previously set this target at 95% (based on running up to 1 minute earlier to 7 minutes later than timetabled), although it recognises that a lower figure may be appropriate in some circumstances.[156]

8.75 The Traffic Commissioner has recognised that fear of regulatory action has resulted in many operators being unwilling to publicly release their actual performance levels, which implies that a number of services may be missing these targets.[157]

Partnership schemes with LTAs

8.76 As noted in the industry background section (paragraph 2.50), LTAs may partner with commercial bus operators by way of:

(a) Voluntary partnership agreements (VPAs) – a voluntary agreement between an operator and at least one LTA covering a range of issues, but usually specifying an expected level of service to be delivered by each party.

(b) Quality partnership schemes (QPSs) – the LTA agrees to provide particular facilities in their area, such as improved bus stops or new bus lanes, and operators wishing to use those facilities undertake to provide services of a particular standard (eg using new buses).[158]

(c) Quality contract schemes (QCSs) – the LTA controls the provision of bus services through a tendering process. The QCS shares similarities with the franchising approach in London, although there are currently none in operation.

8.77 The Bus Services Bill, which aims to 'drive up bus use, help cut congestion and deliver economic growth' is currently progressing through Parliament.[159] In particular, the Bus Services Bill intends to introduce a number of changes to the current mechanisms and powers of LTAs:[160]

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[156] Senior Traffic Commissioner, guidance and direction on local bus services: statutory document no.14.
[157] Senior Traffic Commissioner, guidance and direction on local bus services: statutory document no.14, paragraph 37.
[158] The Local Transport Act 2008 expanded the terms of the QPS model to allow a local authority to specify requirements regarding frequencies, timings or maximum fares as part of the standard of service to be provided, in addition to quality standards.
[159] DfT news story (23 May 2016): Bus Services Bill to help deliver more regular services for passengers.
[160] DfT (2016), *The Bus Services Bill: an overview*.

(a) QPSs will be extended to 'advanced quality partnerships' which will allow for the LTA to introduce measures (eg traffic policies) as well as, or instead of, facilities. It will also broaden the requirements that can be placed on operators to include their marketing approaches.

(b) New powers will be introduced which will allow LTAs to propose 'enhanced partnerships' on geographic areas. These proposals require the support of a majority of operators in the area in order to be implemented. The partnership will then work to set standards and timetables/frequencies within the area, although it cannot determine fares, or compel operators to run services that they do not wish to run.

(c) New franchising powers will be provided to certain local authorities[161] to introduce franchising to their local areas (similar to those in London). The decision needs to be assessed by the local Mayor (or equivalent), and other key elements of the cost-benefit analysis will need to be assured by an independent auditor, however, the local Mayor/LTA makes the final decision on whether the franchising scheme should be introduced.

(d) LTAs will be provided with additional data gathering powers, particularly when a commercial route is being cancelled.

8.78 Where VPAs, QPSs or QCSs are in operation, they may have implications for Arriva's incentives in these geographic areas. The strength of this incentive will vary from being strong regulatory constraint (for QCSs) to weaker incentives based on reputational risks (for VPAs).

8.79 The Parties told us that Arriva had a VPA in the Tees Valley [✂]. Arriva's existing VPAs specify a certain level of service, but there are no specified consequences of breaching such agreements. Therefore, the incentives are primarily due to the risk of reputational damage with the LTA, with any associated consequences of this.

8.80 Arriva's existing QPSs are contractually binding agreements, which are therefore likely to have financial repercussions from any breach, as well as the reputational risks associated with breaching a VPA. It is possible that Arriva could vary or exit some of these schemes, but this could have reputational implications with the LTA too. We are not aware of any QPSs with Arriva in the Northern Franchise area.

[161] DfT (2016), *The Bus Services Bill: an overview*, p15.

8.81 Although Arriva has no QCS agreements in place, it is possible that the threat of introduction could restrict Arriva's actions. However, although a number of LTAs have considered this approach, and some have even attempted to do so (for example, Nexus in the North East),[162] none have been shown to meet the necessary statutory requirements. Given that the likelihood that a QCS will be implemented may now be relatively low given the progress of the Bus Services Bill, it appears more likely that Arriva would be influenced by the prospective franchising proposals within the Bus Services Bill (see paragraph 8.77).

8.82 In this regard, the Parties told us that most changes in fares and services were discussed with PTEs before implementation and that it was essential that cordial relationships with PTEs were maintained, particularly now that the Bus Services Bill gave them a potential legislative tool in franchising.[163]

8.83 More generally, the Parties told us that LTAs were a key stakeholder in Arriva's bus business and that [✂].[164] The Parties also said that LTAs were a customer of Arriva (eg where subsidised or tendered bus services existed or for fixed-term arrangements for the provision of travel under the English National Concessionary Travel Scheme). As such, the maintenance of good relationships with LTAs was considered of paramount importance.

8.84 The importance of relationships between LTAs and bus operators was also emphasised by a number of LTAs and transport operators. At least one LTA stated that it would discuss major service or fare changes with operators before their introduction.[165] However, a number of LTAs stated that they had no direct influence, and limited influence in practice, over commercial bus operators.[166]

8.85 We have not found convincing evidence on whether and how Arriva's relationships with councils or PTEs in fact inhibit Arriva to flex its fares or services. In particular, [✂]. Moreover, in our review of internal documents [✂].

Summary of CMA assessment – commercial bus services

8.86 Commercial bus services are subject to relatively few regulatory constraints compared to rail services.

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162 QCS Board report on Proposal for a Quality Contracts Scheme in Tyne & Wear.
163 [✂]
164 The Parties told us that the importance of maintaining relationships with PTEs was a reason why their bus businesses were managed at a local level.
165 [✂]
166 [✂].

8.87 Fares on commercial bus services are unregulated but multi-operator tickets may constrain the level of individual operator bus fares. We consider this on a flow-by-flow basis.

8.88 The requirement to notify changes to the Traffic Commissioner could introduce a delay in the Parties implementing changes to services on overlapping flows, but is unlikely to constrain such behaviour. Passenger Service Vehicle licence requirements also appear unlikely to limit the Parties' ability to change their commercial behaviour on specific flows routes.

8.89 Operational performance targets may limit the range of actions that the Parties might undertake in response to commercial changes, although the Parties retain the ability to change their bus timetables on commercial services.

8.90 Partnership schemes may impose a stronger constraint on the Parties' commercial behaviour, although the constraint will depend on the nature of the schemes in place in different geographic areas. We have therefore examined the impact of partnership schemes, where relevant, at the flow level.

8.91 It is not yet clear which of the Parties' geographic regions or services will be affected by the Bus Services Bill and the extent to which this will constrain the Parties' commercial behaviour. LTAs told us that they needed both greater clarity over the exact legislation and to review the circumstances over time.[167]

8.92 Other than potentially in the context of partnership schemes, we have not in our assessment of overlapping bus and rail flows found any evidence to suggest that LTAs and PTEs may constrain Arriva's commercial behaviour.

Tendered bus services

8.93 There are two types of tendered bus services:

(a) **minimum cost** – the local authority receives the revenue and the contractor tenders for the whole cost of operating the contract (ie revenue risk is taken by the authority); and

(b) **minimum subsidy** – the operator retains the revenue and tenders for the cost of operating the service less the estimated revenue (ie revenue risk is taken by the operator).

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[167] [✄].

8.94 Both types of services operate in the regions associated with the Northern Franchise. For tendered services, the LTA will usually specify the timetable for the services, and sometimes the specifications of the fleet used as part of the tender. Fares may be either defined in the tender agreement and set by the LTA or, alternatively, the tender agreement may impose certain parameters on fares set by the operator. Tendered services will normally have a specified length (eg one or three years), although there may also be clauses to allow for early termination where circumstances have changed.

8.95 The reputation and relationship between operators and LTAs will often have weight when considering the award of tendered services. Given the relatively high level of importance of tendered routes in the industry, the risk of damaging this reputation may act to constrain an operator's behaviour. However, this may differ by area and operator, depending on the operator's specific strategy.

8.96 Where a proportion of bus services are tendered on overlapping bus and rail flows, we consider the extent to which the Parties' commercial behaviour is constrained by the tendered nature of the services in the flow-by-flow analysis in Section 11.

9. Filtering of overlapping bus and rail flows

The role of filters and prioritisation in the competitive assessment

9.1 In many previous transport inquiries, the CMA and its predecessor bodies have applied filters to the overlapping flows in order to focus analysis on the areas that are most likely to raise competition concerns. Where there are a limited number of overlapping flows, the CMA has not applied filters and has instead examined each overlapping flow.[168]

9.2 The Merger creates 167 overlaps between the Parties' rail services and 1,068 overlaps between the Parties' bus and rail services based on the geographic catchment areas that we adopt (see paragraphs 6.34 to 6.44). We therefore apply a series of filters for prioritisation purposes in order to focus our analysis on the flows most likely to raise competition concerns. Where other evidence, such as internal documents, suggests competition concerns may arise on a deprioritised flow, we examine the relevant flow in detail in our competitive assessment.

[168] CMA (2015), *Anticipated acquisition by Inter City Railways Limited of the ICEC Franchise - full text decision* (ME/6506/14), paragraph 63.

Overlaps between the Parties' rail services

9.3 We consider a number of filters in relation to the Parties' overlapping rail services based on the Parties' submissions, the approach taken by the CMA and its predecessor bodies and our own assessment.

Tyne and Wear services

9.4 We exclude flows between York and the Tyne and Wear as we consider that using a Northern Franchise rail service would not be a plausible alternative to the other (direct) Arriva TOCs and third party rail services. Using a Northern Franchise rail service would involve a significant diversion via the West Coast and Carlisle or involve using third party operators such as Virgin Trains East Coast (VTEC) for part of the journey. Ten overlapping flows are filtered out from further analysis on this basis.

De minimis filter

9.5 We exclude flows where either the Northern Franchise or other Arriva TOCs (ie ATW, CrossCountry or Grand Central) generated annual revenues of below £10,000 as we consider that the incentives to flex fares or service quality are likely to be diluted on such flows as they carry very few passengers and due to the potential impact that this could have on the rest of the route.[169]

9.6 The Parties told us that the threshold for the *de minimis* filter should be at least £5,000 as this amount of revenue accounted for only three passenger journeys on average per day and such flows were unlikely to be of sufficient importance that they would raise SLC concerns.[170]

9.7 We consider this threshold together with higher thresholds at £10,000 or £20,000 per annum. We examine the number of flows that would be excluded on each basis, the characteristics of the remaining flows and the number of passengers involved. A threshold of £10,000 would, based on an average fare on the overlapping flows of £5, only exclude flows that carry an average of six passengers per day or less and would exclude an additional nine flows from the analysis as compared to a £5,000 threshold. We also note that the CMA's predecessor bodies have adopted a £10,000 threshold in a number of cases.[171] We consider this threshold to be appropriate in assessing the competitive effects of the Merger as it only excludes flows with

[169] For example, in relation to consistency of fares across the route and in relation to service quality.
[170] [✂]
[171] See, for example, CC (2004), *National Express Group plc and Greater Anglia franchise*.

low passenger numbers and allows us to focus on the more material overlaps.

9.8 We note that increasing the threshold to £20,000 would exclude another 14 flows. We are cautious about applying a threshold of £20,000 in the assessment of the Merger as it may exclude routes on which there are a number of flows each with a revenue below £20,000 but where the total overlap revenue on the route, and potential harm to passenger interests, could be significant.

9.9 One further flow was excluded on the basis that incremental revenues were just above £10,000 per annum, with the Northern Franchise having a market share of less than [0-5]% on the flow.

9.10 Applying the *de minimis* filter with a threshold of £10,000 excludes 109 flows.[172]

Effective competitor filter

9.11 We initially exclude flows where third party operators have a significant share of passenger revenue, as the Parties' incentives to increase fares or worsen non-price factors are likely to be diluted if a significant proportion of passengers have alternative rail operators to which they may divert in the event of a fare increase or degradation of the Parties' rail services.

9.12 We apply a threshold of 50% to the filter, meaning that flows are initially excluded from further analysis where third party rail operators have a revenue share of at least 50%.[173] 19 flows are deprioritised on this basis. However, the threshold adopted may result in the Parties having a combined rail share of up to 50% on a flow.[174] In order to ensure that we do not exclude any flows on which there is a risk of competition concerns arising as a result of the Merger, we use the effective competitor filter as a prioritisation tool and consider whether any of these 19 flows should be examined in more

[172] This includes the [✂] flow where Northern Franchise revenues are just over £10,000 and the increment from the Merger is less than [0-5]%.
[173] We considered applying the effective competitor filter based on third party share of frequency in addition to third party share of revenue as this would only filter out one additional flow. We also note that a filter which is based on frequency shares may exclude flows where there is significant differentiation on other factors (such as journey times, fares and other service aspects) and potentially where the competitive constraints between the Northern Franchise and Arriva TOCs are stronger than suggested by a share of frequency filter.
[174] The Merger Assessment Guidelines indicate a combined market share threshold of 40% for homogeneous products, above which the CMA is more likely to have concerns regarding unilateral effects in merger assessments. See *Merger Assessment Guidelines*, paragraph 5.3.2. In differentiated markets, such as rail and bus services, whilst the CMA has typically interpreted market shares with caution as these may not accurately represent the strength of competitive constraint, there is a case for using a lower threshold. For example, in assessing the proposed merger between Anglo American PLC and Lafarge SA the CC used a 33% threshold. CC (2012), Anglo American PLC/Lafarge S.A. merger inquiry.

detail, for example by reviewing internal documents discussing these flows (see paragraph 10.9).

Inter-available and regulated fares

9.13 As set out in Section 8 above, fully inter-available fares allow passengers to use services operated by any TOC, including both franchised TOCs and OAOs while routed inter-available fares are valid on any TOC but only via a particular route. Inter-available fares are set by the lead operator and all TOCs are required to accept passengers using these tickets. Secondary operators may offer dedicated fares.

9.14 The Parties told us that where a high proportion of fares were inter-available, existing price competition between TOCs on a flow was either non-existent or extremely limited as there was little, if any use of dedicated fares.[175] The Parties also told us that whilst, in theory, the mere threat of a rival introducing a dedicated fare could constrain the price of the inter-available fares set by the lead operator, in this case the low average fare on flows that had a high proportion of inter-available fares may mean that dedicated fares did not act as a significant constraint (ie the cash savings were limited relative to the loss of flexibility). The Parties suggested that it would be appropriate to exclude flows where the proportion of inter-available revenue on a flow is greater than 95% and Arriva is not the lead operator on the flow.

9.15 The Parties also told us that flows should be excluded where the proportion of regulated fares is greater than 90%.[176]

9.16 We consider that it is appropriate to filter out flows from further analysis where a high proportion of fares are inter-available (whether fully or routed inter-available) and where a high proportion of fares are regulated as there is little scope on these flows for TOCs to compete on price.

9.17 We examine the appropriate threshold for filters in relation to inter-available fares and regulated fares. In relation to inter-available fares, we are mindful of the fare setting decisions of the lead operator and, in particular, where the Northern Franchise or another Arriva TOC is the lead operator. In circumstances where the Northern Franchise is the lead operator and the other Arriva TOCs are significant operators on the flow (for example, the second largest), the threat of introducing dedicated fares may have constrained the previous operator of the Northern Franchise in its setting of inter-available fares pre-Merger. Therefore, we consider that an

[175] Arriva response to issues statement, paragraph 4.2.
[176] Arriva response to issues statement, paragraph 4.2.

appropriately cautious threshold should be adopted.[177] We note that there remains scope for certain unregulated fares to be increased by the Northern Franchise (see paragraph 8.15).

9.18 We therefore exclude flows where inter-available fares account for 100% of revenues and regulated fares for more than 80% of revenues on a flow. However, where other evidence, such as internal documents, suggests that the Merger may significantly affect competition on flows excluded by this filter we consider those flows in greater detail in the assessment of competitive effects.[178] This filter excludes ten flows.

Revenue increment filter

9.19 The Parties told us that a filter which excluded flows where the revenue increment from the pre-Merger to the post-Merger situation is less than 5% should be applied as it would exclude flows where the Merger would not materially change the nature or structure of competition on the flows or route in question.[179]

9.20 We already consider the increments to revenue by applying the *de minimis* filter to both the Northern Franchise revenue and the revenue of the Parties' other rail services.[180] We therefore do not adopt a revenue increment filter.

Flows prioritised for detailed assessment

9.21 Table 3 and Figure 3 summarise the filters applied to rail overlaps.

Table 3: Filters applied to rail overlaps

Filter	*Flows excluded*	*Flows remaining*	*Revenues excluded (£m)*	*Revenues remaining (£m)*
York–Tyne & Wear	10	157	[✂]	[✂]
De minimis*	109	48	[✂]	[✂]
Effective competitor filter	19	29	[✂]	[✂]
Regulated and inter-available fares filter	10	19	[✂]	[✂]
Total	148	19	[✂]	[✂]

Source: The Parties/CMA analysis.

[177] A number of competing transport operators and PTEs stated that dedicated fares were an important way of increasing revenues including in competition with other TOCs. [✂].
[178] In considering which flows to examine in greater detail, we consider whether the Northern Franchise is the lead operator and other Arriva TOCs are the second largest operator, whether third parties indicate there is pre-Merger competition between the Parties and with third party TOCs in evidence from internal documents. We place more weight on the inter-available fare filter on flows where the second largest operator is not one of the Parties, where internal documents suggest that a third party is a significant secondary operator, where the Parties have no plans to introduce dedicated fares and where the Parties are the lead operator but did not take into account the threat of dedicated fares when setting inter-available fares.
[179] Arriva response to issues statement, paragraph 4.2.
[180] Given that only 19 flows remain for further analysis after applying our filters, there is little incremental benefit for prioritisation purposes in adopting a revenue increment filter.

* Includes [✂] where Northern Franchise revenues are just over £10,000 and the increment is [✂]%.

Figure 3: Summary of rail filters

Filter	Description – why flows are filtered out
	Number of flows excluded
York – Tyne & Wear	Northern services are not a plausible alternative to Arriva or third party services on 10 flows between York and the Tyne & Wear
	10 flows excluded leaving 157
De minimis	The incentive to flex fares or quality is low on flows with few passengers (annual revenue below £10, 000)
	109 flows excluded leaving 48
Effective competitor	Flows where third party rail operators had ≥50% of passenger revenue the incentive on the Parties to flex fares is diluted
	19 flows deprioritised leaving 29
Regulated & inter-available fares	Flows where inter-available fares account for 100% of revenues and regulated fares for more than 80% of revenues there is little scope for price competition
	10 flows excluded leaving 19 for analysis

9.22 Following the application of filters, 19 flows are prioritised for detailed competitive assessment. These are considered in the Section 10.

Overlaps between the Parties' bus and rail services

9.23 We also consider filters in relation to overlaps between the Parties' bus and rail services.

Significance of overlap filter

9.24 The Parties told us that it would be appropriate to apply a filter to exclude flows where the sum of bus revenue on the overlapping bus-rail flows accounts for less than 10% of total bus route revenue, consistent with the approach taken in previous cases by the CMA and its predecessors.[181,182]

9.25 Operators are likely to have greater incentives to increase fares and/or reduce service quality (for example, by reconfiguring routes) following the Merger if the overlap flows on the route account for a significant proportion of route revenue. Therefore, we consider that routes where overlap flows account for a small proportion of revenue could be filtered out of the detailed analysis as Arriva is unlikely to have an incentive to change fares or non-price aspects of its services on these flows. In particular, we note that changes to non-price aspects of services, such as changes to service frequency and quality, may affect the whole route and that the flow would therefore have to account for a significant proportion of route revenue for Arriva to have the incentive to change non-price aspects of its services.

9.26 We therefore exclude overlapping bus-rail flows where the combined revenue derived from the bus service on those flows accounts for less than 10% of the overall bus route revenue (or passengers on the route). This excludes 450 flows from further analysis.

De minimis plus filter

9.27 The *de minimis* filter excludes flows with low revenues on the basis that on flows which generate relatively small revenues, the incentives to increase fares or reduce service quality are likely to be diluted. In particular, if no SLC were to be found on flows with revenue above the minimum threshold, then it would not have been expected on flows below the threshold.

9.28 We consider the appropriate threshold for the *de minimis* filter. The Parties told us that the average yield per passenger on the flows that did not pass the significance of overlap filter was approximately £[0-5]. A £10,000 and £20,000 *de minimis* threshold would equate to approximately [10-20] and [20-30] passengers per day, respectively.

9.29 In deciding the threshold to adopt we are mindful of the need to protect the interests of passengers who regularly use local bus services and the fact

181 [✂]
182 See, for example, CC (2011), *Local bus services market investigation*, Appendix 11.2; OFT (2008), *Stagecoach/East Midlands rail franchise* (ME/3291/07), paragraph 28; and OFT (2014), *First Finglands* (ME/6229/13), paragraph 46.

that an element of judgement is required in the filtering approach. We consider a *de minimis* threshold of £10,000 to be appropriate as the Parties would have only limited incentives to increase fares or reduce service quality on flows of this size. We do not adopt a £20,000 threshold as a filter, which would exclude a further 32 flows, but consider the level of flow revenue as part of the competitive assessment of overlapping bus and rail flows.

9.30 There is a risk that the *de minimis* filter may exclude routes where there are a number of flows each with revenues below the *de minimis* threshold, but where the combined revenues of these flows and the potential for harm to passenger interests could be significant. We therefore supplement the *de minimis* filter to allow flows to pass the filter only if the cumulative revenue share is below 10%.[183] We describe this as the '*de minimis* plus' filter.

9.31 The Parties told us that this approach might be overly cautious as:[184]

(a) In some cases Arriva made decisions regarding its fares and fare structure [✂].

(b) In many areas, Arriva was part of a multi-operator ticket scheme, which limited Arriva's ability to increase fares on individual flows and routes as the multi-operator ticket price was effectively an upper limit on the fare which Arriva could charge for its own services for equivalent ticket types.

(c) There were a number of practical constraints on Arriva's ability to degrade its service offering including QPS schemes in Merseyside, Halton and Wirral and VPA schemes in the Tees Valley and Liverpool City Region.

9.32 We allow flows to pass the filter only if the cumulative revenue share is below 10% in order to avoid excluding routes where the combined revenues of flows below £10,000 of annual revenue is high and the potential for harm to passenger interests could be significant. This excludes 250 flows from further analysis. We instead examine the arguments made by the Parties in relation to the restrictions on Arriva's ability and incentive to increase its fares and reduce its service offering on flows as part of the competitive assessment in Section 11.

[183] The cumulative revenue share is the sum over all the revenues from the flows passing the *de minimis* filter relative to the total route revenue and is calculated based on all flows that pass the *de minimis* filter. The 10% cut-off for the cumulative share filter is consistent with that applied in the 'significance of overlap' filter.
[184] [✂]

Revenue increment filter

9.33 The Parties told us that flows on which the Northern Franchise revenue is less than 5% of the Arriva bus revenue or Arriva bus revenue is less than 5% of the Northern Franchise revenue should be excluded.[185] The Parties argued that if Arriva bus and Northern Franchise rail revenues on a flow were very different, this suggested that bus and rail were not good substitutes, taking into account different features of the journey which may differ between bus and rail.

9.34 On flows where the Merger does not materially change the Parties' share of bus and rail services on overlapping bus-rail flows, competition issues are less likely to arise as the Merger may not significantly affect the incentives to increase fares or reduce service quality.

9.35 We sensitivity check the threshold at which to apply the revenue increment filter by examining the number of flows that would be excluded at different levels. We exclude flows from further analysis where the increment to the Parties' revenue from the Merger is 5% or less (comparing revenues from the Northern Franchise rail flows to the Parties' pre-Merger bus and rail revenue). This excludes 130 flows.

Effective competitor filter

9.36 The Parties told us that we should apply an effective competitor filter in order to remove flows where there is significant competition from a third party bus operator.[186] As the Parties do not have access to competitors' revenue or passenger data, the Parties proposed that the filter should be based on the frequency of competing service, excluding flows where the largest competitor (in terms of frequency) has at least 50% as many services as Arriva on the flow.[187]

9.37 We use the effective competitor filter to prioritise flows for further analysis. We exclude flows where third party bus operators offer a similarly frequent service to the Parties, as the Parties' incentives to increase fares or reduce service quality are likely to be diluted if a significant proportion of passengers have alternative operators to which they can switch in the event of degradation of the Parties' offer post-Merger.[188]

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185 [✂]
186 Arriva response to issues statement, paragraph 4.2.
187 The Parties proposed comparing the number of Arriva bus services on a route in the weekday peak hours to the frequency of the competitor with the largest number of bus services in the weekday peak for each flow.
188 In our flow-by-flow assessment we also consider the potential for new entrants to become effective competitors.

9.38 We consider the appropriate threshold at which a competitor is 'effective'. The Parties told us that a 50% frequency threshold was appropriate, referring to previous cases.[189] We sensitivity test this frequency threshold and sensitivity check the effect of aggregating frequencies of all competitors and using non-peak frequencies instead of peak frequencies. This does not significantly affect the number of flows filtered out.[190]

9.39 We therefore adopt a 50% peak frequency threshold for identifying third party services as sufficiently similar in frequency to be effective competitors. This excludes 77 flows.

Tendered bus routes

9.40 The Parties told us that [✂].[191] We therefore do not apply a tendered bus route filter, although we consider whether competitive conditions differ for tendered or partially tendered bus routes in the competitive assessment in Section 11.

Rail de minimis

9.41 The Parties told us that in addition to the bus *de minimis* filter, flows on which the Northern Franchise revenue on a flow is below £10,000 should be excluded, as in the rail-rail analysis.[192] The Parties said that on overlapping bus-rail flows where the Northern Franchise revenue is below £10,000, the Northern rail service may not be a viable option for many passengers travelling between the origin and destination points.

9.42 Data submitted by the parties indicated that on 78% of such flows, there are one or fewer Northern Franchise rail services in the weekday peak and on 84% of flows there is less than one service in the weekday off-peak.

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[189] The CMA previously adopted an effective competitor filter in rail-coach overlaps based on the frequency of the most relevant competitor, ie the competitor offering the same mode of transport with the most number of weekday services on the overlapping flow. Where the relevant competitor had a frequency of less than 50% of the merging parties' frequency flows were considered more closely on the basis that the competitor would not be effective (see CMA (2015), *Anticipated acquisition by Inter City Railways Limited of the ICEC Franchise - full text decision* (ME/6506/14)).
[190] In calculating the frequency of competitors' services, the Parties considered bus operators within 400 metres of an Arriva bus stop. We examined the distances between the Arriva bus stops and competitor bus stops for the flows that are excluded on the basis of the effective competitor filter (and which are not excluded on the basis of any other filter). For the majority of flows, at least one of the origin or destination bus stops of the competitor was the same as the Arriva bus stop.
[191] [✂]
[192] [✂]

9.43 We consider that on such flows, the Parties will have limited incentives to increase fares or degrade service quality on bus services in order to divert passengers to the Northern Franchise.

9.44 We consider the appropriate threshold for the rail *de minimis* threshold. Consistent with the bus *de minimis* threshold, we use £10,000 revenue per annum (equivalent to [less than ten] passengers per day) as a starting point and sensitivity checked a threshold of £20,000. We find that the higher threshold excludes a number of flows and, in turn, routes with revenue above £3 million. We therefore retain the filter at £10,000. This excludes 72 flows.

Intra-urban flows

9.45 The Parties told us that it would be appropriate to define a smaller catchment area for intra-urban flows than the 1,200-metre catchment area adopted.[193]

9.46 As we note in our consideration of the relevant geographic market (see paragraph 6.43), we consider whether this would be appropriate on the basis that passengers may walk shorter distances to bus stops or railway stations for short intra-urban journeys. We consider possible definitions of intra-urban flows and whether data is available from NTS in relation to intra-urban flows.[194] However, the level of aggregation of NTS data available does not allow us to carry out the analysis for urban areas separately. In view of the number of overlaps remaining for detailed assessment, we therefore consider arguments in relation to local geographic factors, including whether overlapping flows are in urban areas, as part of the competitive assessment of bus-rail overlaps in Section 11.

Flows prioritised for detailed assessment

9.47 Following the application of filters (and before any further prioritisation based on analysis of GJC, see paragraph 6.10), 89 flows remain for further analysis based on a £10,000 *de minimis* threshold.

9.48 Table 4 and Figure 4 summarise the filters applied to rail and bus overlaps.

[193] See the discussion of the relevant geographic market in Section 6.
[194] For example, flows which begin or end in the same town and where the flow has a journey time of less than 15 minutes by rail might be defined as intra-urban.

Table 4: Filters applied to rail-bus overlaps

Filter	*Flows excluded*	*Flows remaining*	*Revenues excluded (£m)*	*Revenues remaining (£m)*
Significance of overlap filter	450	618	[✂]	[✂]
De minimis plus filter	250	368	[✂]	[✂]
Revenue increment filter	130	238	[✂]	[✂]
Effective competitor filter	77	161	[✂]	[✂]
Rail de minimis	72	89	[✂]	[✂]
Total	979	89	[✂]	[✂]

Source: The Parties/CMA analysis.

Figure 4: Summary of bus filters

Filter	Description – why flows are filtered out	Number of flows excluded
Overlap significance	Bus flows where the sum of bus revenue on the overlapping bus-rail flow accounts for <10% of the total bus route revenue is excluded as operators are unlikely to have the incentive to adjust fares or reconfigure routes	450 flows excluded leaving 618
De minimis plus	On flows which generate relatively small revenues, the incentives to flex fares or quality are likely to be diluted	250 flows excluded leaving 368
Revenue increment	Where the increment to the Parties' revenue from the Merger is 5% or less the Merger does not materially change the Parties share of services	130 flows deprioritised leaving 238
Effective competitor	Where a competitor offers a similar frequency to the Parties those flows are excluded as an effective competitor exists	77 flows deprioritised leaving 161
Rail de minimis	Where the Northern Franchise revenue on an overlap flow is below £10,000 the flow is excluded as the Parties have limited incentives to alter services	72 flows excluded leaving 89 for analysis

10. The effect of the Merger on overlapping rail services

10.1 In this section, we examine the competitive effects of the Merger on the overlapping rail services on rail flows where services operated by other Arriva TOCs, namely ATW, CrossCountry and Grand Central overlap with the Northern Franchise.

10.2 We examine whether the Merger may have horizontal unilateral effects and result in an increase in fares and/or a reduction in non-price aspects of the rail service offering (such as service quality, frequency and operational performance) on the overlapping rail flows.[195] These effects arise where, as a result of the common ownership of overlapping rail services, the Parties have the ability and incentive to increase fares and/or reduce non-price aspects of rail services post-Merger. These effects are most likely to arise where the overlapping rail services are seen as close competitors.

10.3 For example, if one TOC (eg CrossCountry) had increased fares on its rail service pre-Merger, then some passengers would have diverted to the overlapping rail service (eg the Northern Franchise). Such an increase in fares (or a reduction in non-price aspects of the service) may have been unprofitable pre-Merger as a result of the TOC losing customers to the competing TOC (eg from CrossCountry to the Northern Franchise) and, as such, not attempted by the TOC. However, following the Merger, a single operator runs both of the overlapping rail services and fare increases may become profitable post-Merger as a proportion of customers lost by the TOC as a result of a fare increase will be re-captured by the other TOC, which is now in common ownership.

10.4 As set out further in our review of regulatory constraints in Section 8 (see paragraphs 8.61 to 8.63), we conclude that the Parties do not have the ability to flex regulated fares under the current policy framework and that regulated fares may constrain the level of some unregulated fares.

10.5 In Section 8, we also conclude that franchised TOCs have limited ability to flex non-price factors, such as service levels (for example, in relation to timetabling, performance and rolling stock) as they are required to meet detailed committed obligations in their TSRs which were set at the time of the award of their franchises. This is confirmed by our review of internal documents and submissions from third parties.

[195] *Merger Assessment Guidelines*, paragraphs 5.4.6–5.4.12.

Theory of harm: The Parties' ability and incentive to increase fares as a result of the Merger

10.6 We focus our competitive assessment on the Parties' ability and incentive to increase unregulated fares as a result of the Merger.[196]

10.7 Based on our assessment of fare regulation (see paragraphs 8.61 to 8.63), review of internal documents and third party submissions on rail services, we observe three categories of unregulated fares that could be increased post-Merger:

(a) Unregulated fully inter-available fares set by the lead operator on its flows.

(b) Unregulated routed inter-available fares. Such fares are used to segment passenger journeys, for example offering cheaper journeys on services which run via a particular route as an alternative to the fully inter-available fare which offers access to the full range of services on the flow for a premium.

(c) Dedicated fares, many of which are advance purchase fares valid on specified services, with a limited number being available for purchase on each individual service.[197] Because the TOC setting the dedicated fare derives 100% of revenues on such fares, the TOC may use these fares to encourage greater use of its own services in competition with other TOCs on the flow. In contrast, revenue from inter-available fares is allocated between operators using the ORCATS system.

Initial assessment of overlapping flows

10.8 The filtering approach set out in Section 9 identified 19 overlapping rail flows for detailed assessment. As set out in paragraph 9.12, we consider as part of the competitive assessment whether it is necessary to examine any of the 19 flows deprioritised on the basis of the effective competitor filter, for example by reviewing internal documents.

10.9 Following a review of internal documents produced by the Parties we identified a further four flows for detailed assessment where these

[196] We conclude in Section 8 that the Parties have greater ability to change some non-price aspects of their open access services and therefore also consider the ability and incentive of the Parties to degrade non-price aspects of their open access services as part of the competitive assessment.
[197] As noted in paragraphs 8.24–8.27, both lead and secondary operators are permitted to offer advance purchase dedicated tickets valid on specific services. Only a secondary operator may offer a dedicated walk-up fare (these fares are only valid on a specific TOC but are not restricted to a particular service).

documents suggested a degree of pre-Merger competitive interaction between Arriva TOCs and Northern Rail.[198]

10.10 On the 23 flows identified for detailed assessment (ie the 19 flows from the filters and four from the review of internal documents) we, therefore, consider whether the Merger has resulted in or may be expected to result in an SLC as a result of the common ownership of overlapping rail services. As stated, we assess below if this would arise where this common ownership provides the Parties with the ability and incentive to increase fares following the award of the Northern Franchise.

Assessing the closeness of competition between overlapping rail services

10.11 We first consider the closeness of competition between overlapping rail services operated by the Parties on the 23 flows prioritised for further assessment. Rail services operated by different TOCs are more likely to be substitutes for passengers where they are similar in terms of destinations, access/egress times, fares, frequencies, journey times and other quality aspects of the offer (for example the level of comfort provided on the services).[199]

10.12 In order to test the similarity of overlapping rail services we use the rail industry standard 'MOIRA' model, which is used to estimate the effects of changes to services.[200]

10.13 We use MOIRA to identify flows on which the Northern Franchise and other Arriva TOCs are particularly close alternatives for passengers and prioritise these flows for detailed assessment.

MOIRA

10.14 MOIRA relies on timetable information, passenger preferences and estimates of generalised journey time (GJT).[201]

10.15 GJT is particularly relevant to our assessment as it combines the important service factors (journey time, frequency and interchanges) and allocates demand to specific services based on these factors.

[198] Northern Rail operated the Northern Franchise prior to ARN.
[199] Rail services may still be substitutes when there are differences in some of these factors, for example lower fares on one service may offset longer journey times on the other service.
[200] MOIRA is an industry accepted best practice model for assignment of rail demand to train services on the rail network in Great Britain. Further details are set out in Appendix E.
[201] In contrast to GJC (see paragraph 6.10), GJT (which is used in MOIRA) does not include the cost of fares, ie it only reflects the cost of time.

MOIRA approach to modelling diversion

10.16 In order to model the incentives to increase fares on individual flows, we simulate a number of scenarios on MOIRA. These scenarios simulate a timetable degradation of Northern Franchise services on the 23 flows.[202]

10.17 We then calculated a revenue retention (RR) ratio which indicates the revenue that would be retained by the Parties following a timetable degradation of Northern Franchise services as follows:

$$Revenue\ retention\ ratio = \frac{Total\ Revenue\ Gains\ to\ Arriva}{Total\ Revenue\ Gains}$$

10.18 The RR ratio calculation implicitly takes into account competition from other modes of transport, including private transport, and passengers who decide not to travel at all.

10.19 We consider that this RR ratio provides a useful indicator of the post-Merger incentives to increase fares (see further paragraph 10.23). In particular, flows where the RR ratio is high, the incentives to increase fares are likely to be strongest. This is because prior to the Merger, in the event of fare increases, a proportion of revenues would have diverted to other TOCs, including Arriva TOCs. Following the Merger, Arriva re-captures a proportion of revenues on its other TOCs, such that the fare increase is not as costly. On flows where the re-captured revenues (proxied by our RR ratio) are a significant proportion of diverting revenues, the incentives to increase fares following the Merger are likely to be stronger.

The views of the Parties regarding MOIRA

10.20 The Parties told us that the removal of a whole train service from a timetable or the removal of an origin or destination station was quite an extreme scenario to test within MOIRA because the focus of the CMA's analysis was price competition. The Parties said that MOIRA simulated timetable degradation and was unsuitable to identify price competition between the TOCs.[203]

[202] Timetable flexing may involve different scenarios, such as deleting whole train services on the route; deleting a sample of trains serving the particular flow(s); changing the stopping patterns of the train services, or other aspects of timetables. In most cases we modelled the removal of either the origin or destination station from the relevant Northern Franchise timetable. In detailed analysis of the SLC flows, additional MOIRA analysis was carried out using a 10% average time penalty on in-vehicle journey time on the flow, and RR ratios were very similar to the ones calculated from the method above (reported in Annex 1 of Appendix E).
[203] Arriva's response to provisional findings, p8.

10.21 Furthermore, the Parties said that the CMA applied MOIRA and the resultant RR ratio analysis as a hard benchmark, without giving appropriate account to the fact that it should, at most, be used as a cautious threshold.

CMA assessment regarding MOIRA

10.22 In the MOIRA analysis we assess where passengers divert if a Northern Franchise service is removed from the timetable. On a conservative approach, this diversion pattern suggests how close alternatives other TOCs are to the Northern Franchise.

10.23 Following provisional findings, in addition to modelling service removal using MOIRA, we assess substitution patterns in response to an approximate fare increase for the four flows on which we provisionally found an SLC. The substitution patterns from this analysis are broadly in line with the substitution patterns we observe from service removal conducted in MOIRA. The results are reported in Annex 1 of Appendix E.

10.24 The CMA does not use MOIRA as a hard benchmark, but as a tool for prioritising overlapping flows for further analysis.

10.25 We adopt an RR ratio threshold of 50% to prioritise flows for more detailed assessment. We note that at this threshold the Parties would still retain half of the revenue gains from a timetable degradation.

10.26 On 12 flows, the RR ratio is below 50%, indicating that third party TOCs are likely to be good alternatives to Northern Franchise services. We therefore focus our analysis on flows where the RR ratio is above 50% and consider the remaining 11 flows in greater detail.[204] These flows are set out in Table 5 below.

[204] We use the RR ratio as one piece of evidence in the competitive assessment of the 11 overlapping flows prioritised for detailed assessment.

Table 5: Overlapping rail flows prioritised for detailed analysis

Origin	*Destination*	*Lead operator*	*Flow total revenues (£'000)*	*Northern revenues (%)*	*ATW revenues (%)*	*CrossCountry revenues (%)*	*Grand Central revenues (%)*	*Competitor revenues (%)*	*RR ratio (%)*	*Regulated fares (%)*	*Inter-available fares (%)†*
Leeds	Sheffield	VTEC*	[✂]	[20-30]	[0-5]	[70-80]	[0-5]	[0-5]	[50-60]	[70-80]	[90-100]
Wakefield	Sheffield	Northern	[✂]	[20-30]	[0-5]	[70-80]	[0-5]	[0-5]	[50-60]	[70-80]	[90-100]
York	Wakefield	VTEC	[✂]	[0-5]	[0-5]	[80-90]	[0-5]	[10-20]	[50-60]	[40-50]	[90-100]
Bradford	Halifax	Northern	[✂]	[90-100]	[0-5]	[0-5]	[0-5]	[0-5]	[80-90]	[70-80]	[90-100]
Chester	Manchester Airport	Northern	[✂]	[30-40]	[50-60]	[0-5]	[0-5]	[5-10]	[80-90]	[60-70]	[90-100]
Chester	Stockport	ATW	[✂]	[50-60]	[10-20]	[0-5]	[0-5]	[20-30]	[50-60]	[30-40]	[90-100]
Chester	Manchester	Northern	[✂]	[10-20]	[80-90]	[0-5]	[0-5]	[0-5]	[60-70]	[70-80]	[90-100]
Earlestown	Manchester	Northern	[✂]	[30-40]	[60-70]	[0-5]	[0-5]	[0-5]	[80-90]	[80-90]	[90-100]
Newton-le-Willows	Manchester	Northern	[✂]	[50-60]	[40-50]	[0-5]	[0-5]	[0-5]	[90-100]	[80-90]	[90-100]
Manchester	Wilmslow	Northern	[✂]	[30-40]	[20-30]	[0-5]	[0-5]	[30-40]	[70-80]	[80-90]	[90-100]
Manchester	Stoke-on-Trent	WCML‡	[✂]	[0-5]	[0-5]	[20-30]	[0-5]	[60-70]	[50-60	[40-50]	[90-100]

Source: The Parties and CMA calculations using MOIRA model.
* Virgin Trains East Coast.
† The data for inter-available revenue share presented here includes 'routed' revenue.
‡ West Coast main line.

Framework for the detailed competitive assessment of the 11 overlapping rail flows

10.27 In this section, we set out the framework for the detailed assessment of the 11 overlapping rail flows.

10.28 We set out the views of the Parties and third parties on competition between overlapping rail services before setting out our approach to the detailed competitive assessment.

The views of the Parties and third parties

10.29 The Parties told us that on some flows where multiple TOCs operated services, there was scope for competition between TOCs. However, the Parties said that the scope for such competition was limited by the franchising model and played a subsidiary role to competition for the market (ie competition for the award of rail franchises). In the Parties' view, effective competition was not present on every flow where there was more than one operator and the flow-by-flow assessment should consider the following factors:[205]

- *(a)* Passengers had a preference for specific journey times and shorter journeys, meaning that choices were determined by timetable and route options (which could not be changed unilaterally by the franchised TOCs).
- *(b)* Flows where a significant proportion of revenues were derived from regulated fares were unlikely to see significant price competition.
- *(c)* The assessment should identify flows where competition actually existed and drove benefits for passengers above those secured by the franchise model.
- *(d)* Consideration of passenger preferences and the impact on TOCs' incentives were important to identifying any potential effects on competitive interactions.

10.30 Third party submissions on the potential for competition between rail flows were broadly consistent with the views of the Parties.[206]

[205] Arriva initial submission, paragraphs 1.10–1.12.
[206] See, for example, FirstGroup response to issues statement.

CMA assessment of evidence considered in relation to individual flows

10.31 In our flow-by-flow assessment we consider the following factors in the round in assessing whether the Merger has resulted or may be expected to result in an SLC on the overlapping rail flows:

(a) Share of services and revenue: we consider the impact of the Merger on the share of services and revenues on the flow. This is because an SLC is more likely on flows where the Merger leads to the Parties operating a large share of services on a flow or a significant increment in the Parties' share of services on a flow.

(b) Closeness of pre-Merger competition: we consider the similarity of Northern Franchise and other Arriva TOC services in terms of frequency, hours of operation, journey times (including interchange penalties) and fares. We use the RR ratio from MOIRA as one measure of the closeness of pre-Merger competition. We also consider, where relevant, the services provided by third party TOCs. An SLC is more likely on flows where the Northern Franchise and Arriva TOCs services are similar and (jointly) differentiated from third party TOCs.

(c) The Parties' ability to increase fares: whether the Parties set unregulated fully inter-available, unregulated routed inter-available or dedicated fares. We also assess the headroom for the Parties to increase unregulated fares post-Merger by examining the amount by which unregulated fares could be increased before they reach the level of the regulated fare. In this assessment we are mindful of drawing inferences from fare differentials alone, since fare types may be differentiated (eg in relation to the level of flexibility they offer).[207]

(d) The Parties' incentive to increase fares: in addition to the factors set out in (a) to (c), we also consider evidence of pre-Merger constraint from dedicated fares on inter-available fares and/or of competition on dedicated fares. Following provisional findings, we also assess the Parties' incentive to increase fares on the four rail flows on which we provisionally found an SLC by examining the revenue that the Parties would gain from increasing unregulated fares by or close to the maximum headroom available. This estimate provides an upper bound for the revenue that the Parties would gain by increasing fares as we acknowledge that the Parties may not be able to increase fares by the full headroom available between unregulated and regulated fares given

[207] For example, different dedicated fares may have different restrictions on the services on which they are valid and/or differing requirements in relation to how far in advance of travel the ticket must be purchased.

differences in the types of fare (eg between peak and off-peak fares and single and return fares).

(e) Other constraints: other constraints on the Parties' ability to flex fares post-Merger, such as competition from other modes of transport.

Entry and expansion in passenger rail services

10.32 We also consider the scope for entry or expansion to prevent an SLC. We consider whether such entry or expansion would be timely, likely and sufficient:[208]

(a) **Timely**: whether entry or expansion can be 'sufficiently timely and sustained to constrain the merger firm.' The Merger Assessment Guidelines note that: 'The Authorities may consider entry or expansion within less than two years as timely, but this is assessed on a case-by-case basis, depending on the characteristics and dynamics of the market, as well as on the specific capabilities of potential entrants.'[209]

(b) **Likely**: whether firms have the 'ability and incentive to enter this market'.[210]

(c) **Sufficient**: whether the scope or scale of entry or expansion would be sufficient to act as a competitive constraint.[211]

10.33 For an SLC to be prevented, all three of these criteria would have to be met; that is entry or expansion would have to be timely, likely and sufficient.

Franchised services

10.34 Franchised TOCs may, with consent from the DfT, apply to ORR for approval to enter into a track access agreement with Network Rail to operate additional services. In order to obtain approval, an applicant must demonstrate that sufficient capacity is available to operate the additional services, that the services would not create operational performance issues and the impact on the revenues of other TOCs. Other TOCs have the right to raise objections during the process. The application process may take at least a year.

[208] *Merger Assessment Guidelines*, paragraph 5.8.3.
[209] *Merger Assessment Guidelines*, paragraph 5.8.11.
[210] *Merger Assessment Guidelines*, paragraph 5.8.8.
[211] *Merger Assessment Guidelines*, paragraph 5.8.10.

10.35 To date, such applications have typically come from franchised TOCs seeking to extend their existing routes to serve additional destinations. Entry on specific flows in response to changes in competitive conditions is therefore only likely to be feasible if the flow is adjacent to the route of another TOC. Moreover, in designing franchises, the DfT allocates available network capacity for passenger services to franchised TOCs and very little spare capacity exists on many parts of the network.

Open access services

10.36 As discussed in the industry background section, an OAO may apply to ORR to operate open access services on a route. Applicants must demonstrate that there is sufficient capacity to operate the new services and that they satisfy the NPA test (ie that the new services are not primarily abstractive from franchised TOCs' revenues). A number of recent open access applications have taken over two years to determine.

10.37 Only two OAOs have successfully started operating services and these run with limited frequency, focusing on connecting northern towns to London where they lacked direct services.

The views of the Parties and third parties

10.38 Neither the Parties nor third parties argued that barriers to entry and expansion in passenger rail services were sufficiently low to act as a timely, likely and sufficient constraint on ARN's commercial behaviour.

Conclusion on entry and expansion

10.39 We therefore conclude that entry or expansion in passenger rail services is unlikely to be timely, likely, or sufficient to prevent an SLC.

Assessment of overlapping flows

10.40 In this section, we set out our assessment of the 11 overlapping rail flows prioritised for assessment.

10.41 Table 6 summarises the data on the four assessment criteria set out at 10.31(a) to (d).

Table 6: Summary statistics on 11 flows

		(a) Share of revenues			*(b) Closeness of services*			*(c) Fare competition*			*(d) Constraints on fares*	
Flow	*Total revenues (£'000s)*	*Northern % of flow revenues*	*Arriva % of flow revenues (ATW, XC, GC)*	*Other TOCs % of flow revenues*	*RR ratio*	*Northern weekly services*	*Arriva weekly services*	*Proportion inter-available fares*	*Proportion routed inter-available*	*Proportion dedicated*	*Proportion regulated*	*SLC/key clearance factor*
Leeds–Sheffield	[✂]	[20-30]	[70-80]	[0-5]	[50-60]	101	100	[5-10]%	[80-90]%	[5-10]%	[70-80]%	SLC
Wakefield–Sheffield	[✂]	[20-30]	[70-80]	[0-5]	[50-60]	104	99	[0-5]%	[80-90]%	[10-20]%	[70-80]%	SLC
York–Wakefield	[✂]	[0-5]	[80-90]	[10-20]	[50-60]	31	87	[10-20]%	[80-90]%	[0-5]%	[40-50]%	(a) Low increment
Bradford–Halifax	[✂]	[90-100]	[0-5]	[0-5]	[80-90]	340	24	[90-100]%	[0-5]%	[0-5]%	[70-80]%	(a) Low increment / (b) Northern frequency / (c) IA fares
Chester–Manchester	[✂]	[10-20]	[80-90]	[0-5]	[80-90]	71	178	[80-90]%	[10-20]%	[0-5]%	[70-80]%	SLC
Chester–Stockport	[✂]	[50-60]	[10-20]	[20-30]	[50-60]	84	71	[30-40]%	[50-60]%	[10-20]%	[30-40]%	Competition from VTWC and no incentive to increase fares
Chester–Manchester Airport	[✂]	[30-40]	[50-60]	[5-10]	[60-70]	11	8	[40-50]%	[50-60]%	[0-5]%	[60-70]%	(c) All fares set by ATW
Earlestown–Manchester	[✂]	[30-40]	[60-70]	[0-5]	[80-90]	112	105	[90-100]%	[0-5]%	[0-5]%	[80-90]%	(c) All fares set by Northern
Newton Le Willows–Manchester	[✂]	[50-60]	[40-50]	[0-5]	[90-100]	170	105	[90-100]%	[0-5]%	[0-5]%	[80-90]%	(c) All fares set by Northern
Manchester–Wilmslow	[✂]	[30-40]	[20-30]	[30-40]	[70-80]	190	101	[80-90]%	[0-5]%	[10-20]%	[80-90]%	(c) No fares set by ATW
Manchester–Stoke-on-Trent	[✂]	[0-5]	[20-30]	[60-70]	[50-60]	71	164	[40-50]%	[0-5]%	[50-60]%	[40-50]%	(c) Very few fares set by Northern (competition is between CrossCountry and VTWC)

Source: The Parties, CMA analysis using MOIRA and CMA assessment.

10.42 We set out below our detailed assessment of the following flows:

(a) Leeds to Sheffield;

(b) Wakefield to Sheffield; and

(c) Chester to Manchester.

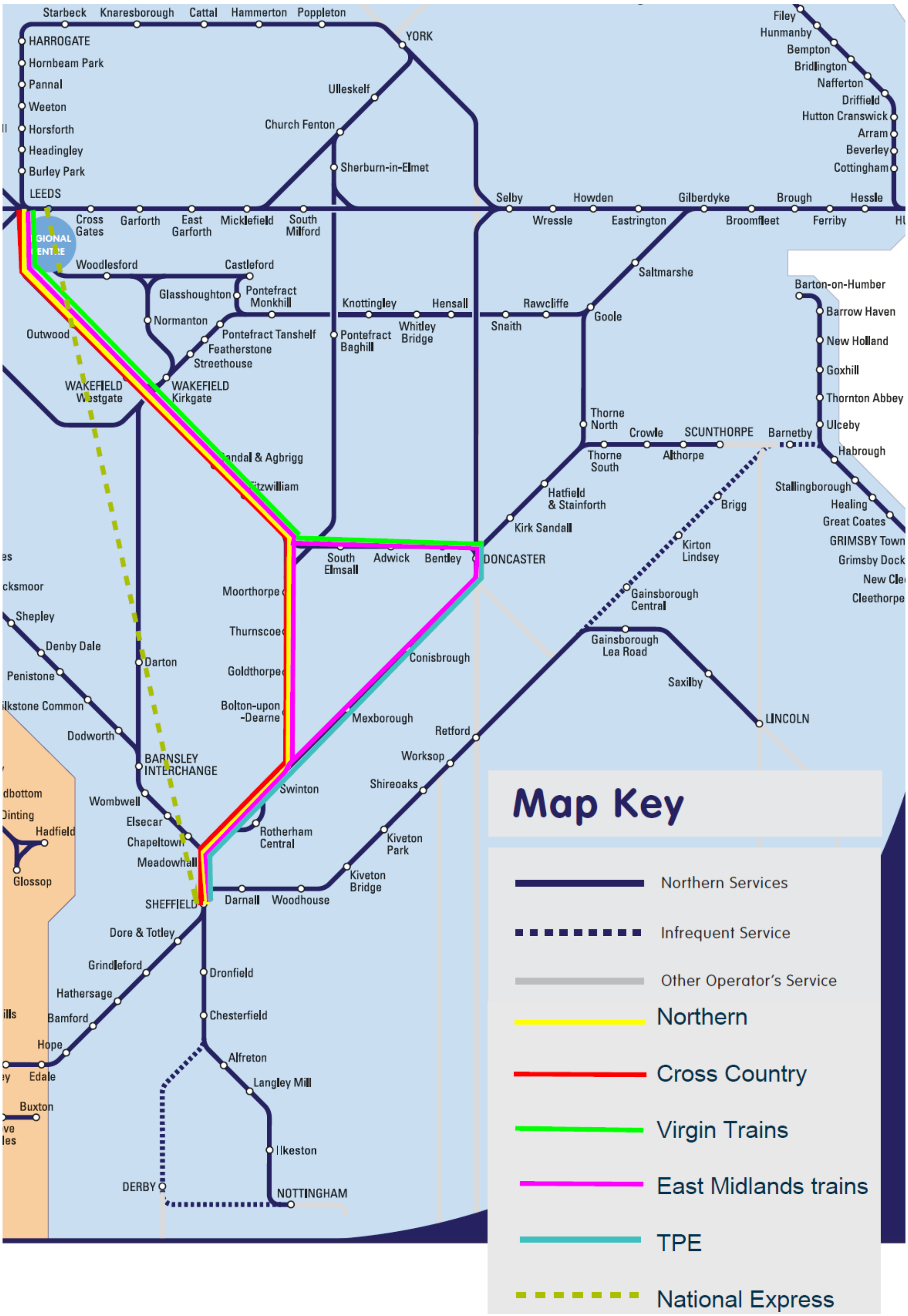
10.43 For these three overlapping flows we conclude that the Merger has resulted in or may be expected to result in an SLC. In our provisional findings, we concluded that one additional flow (Chester to Stockport) has resulted in or may be expected to result in an SLC. We explain below why the provisional conclusion has changed to a conclusion that the Merger has not resulted in or may not be expected to result in an SLC on the Chester to Stockport flow.

10.44 The detailed assessment of the remaining seven flows on which we conclude that the Merger has not resulted in or may not be expected to result in an SLC is set out in Appendix E.

Leeds to Sheffield

10.45 Figure 5 shows the overlap between CrossCountry and Northern Franchise rail services on the Leeds to Sheffield flow.

Figure 5: Map of Leeds to Sheffield flow



Source: The Parties.

10.46 This flow is predominantly served by the Northern Franchise and CrossCountry, which operate almost all of the direct services. Third party TOCs provide very limited (direct or indirect services), with East Midlands

Trains (EMT) offering the only third party direct rail service on the flow.[212] VTEC and some EMT trains operate via Doncaster, but using VTEC requires a change to another TOCs service (CrossCountry, TransPennine Express (TPE) or EMT) to complete the journey.

10.47 Table 7 sets out the number of weekly services on the Leeds to Sheffield flow.

Table 7: Number of weekly services on the Leeds to Sheffield flow

	Direct				*Indirect*			
	Weekday Peak	*Weekday Off Peak*	*Saturday*	*Sunday*	*Weekday Peak*	*Weekday Off Peak*	*Saturday*	*Sunday*
Northern	13	26	34	22	0	0	1	5
CrossCountry	14	21	35	30	0	0	0	0
ATW	0	0	0	0	0	0	0	0
Arriva/Northern + Other					8	14	3	5
Other TOCs	1	4	4	6	1	1	0	2

Source: The Parties.

10.48 Table 8 sets out details of the key data on the Leeds to Sheffield flow.

Table 8: Leeds–Sheffield summary data and analysis

Flow characteristics	*Northern*	*Arriva (Other)*	*Third party*
Minimum in-vehicle journey time (minutes)	55	39	41‡
Third-party competitors	VTEC, EMT, TPE		
Lead operator (fare-setter on the Any Permitted fares): VTEC			
Inter-available fare (£)*			15.30§
Routed inter-available fare (£)*	10.80		
Dedicated fare price (£)†	4.83	8.51	7.22
Share of total flow journeys (%)	[20-30]%	[70-80]%	[0-5]%
Share of flow revenue (%)	[20-30]%	[70-80]%	[0-5]%
TOC overlap flows revenue as % of route revenue (includes filtered out flows)	[30-40]%	[10-20]%	
TOC flow revenue as % of route revenue	[20-30]%	[0-5]%	
Total flow revenue (all operators)	£[✂]		
Regulated revenue on flow (%)	[70-80]%		
Fully inter-available fares (%)	[5-10]%		
MOIRA analysis at flow level	**All TOCs (£'000)**	**RR ratio (%)**	
Total gains	[✂]	[60-70]	

Source: The Parties and CMA calculations using MOIRA.
* This is the minimum-priced relevant fare on the flow.
† Dedicated fare price here is a journey-weighted average (ie ratio of total revenue from advanced purchases and total journeys undertaken using these fares).
‡ Estimated by Arriva. EMT.
§ The inter-available fare is set by VTEC as the lead operator on the flow. The 'not via Doncaster' fares are set by the Northern Franchise.

The views of the Parties

10.49 The Parties told us that the CrossCountry services offered a significantly faster journey time when compared to Northern Franchise and that

[212] VTEC and some EMT trains operate via Doncaster, but VTEC services require a change to another TOCs service (CrossCountry, TPE or EMT) to complete the journey.

CrossCountry revenues on this flow were nearly [✂] those of the Northern Franchise.[213] The Parties said that there was little competition pre-Merger as [90-100]% of revenue was derived from inter-available fares.[214] The Parties also said that VTEC is the lead operator and sets the inter-available fares for all TOCs on the flow and that there will be no change to these fares as a result of the Merger.

10.50 The Parties told us that the RR ratio of [50-60]% on the flow was close to the 50% threshold used by the CMA to prioritise flows and gave a conservative view of the closeness of competition given that it essentially modelled a 'forced frequency diversion' rather than a price increase.[215]

10.51 The Parties said that a significant proportion of fares ([70-80]%) were regulated and that Arriva would not be able to increase these fares by more than that permitted by regulation post-Merger. The Parties said that the proportion of inter-available fares and the proportion of regulated fares on this flow meant that the flow was close to being filtered out on the basis of the thresholds for the inter-available and regulated fares filter adopted by the CMA.

10.52 In relation to dedicated fares, the Parties told us that only [5-10]% of revenue on the flow was from dedicated fares and that [✂] of this revenue was derived from Northern Franchise and CrossCountry ticket sales. The Parties also told us that the differences in dedicated fares between TOCs indicated that there was limited competition on the flow and EMT dedicated fares acted as a constraint on Northern Franchise dedicated fares.[216]

10.53 In particular, the Parties stated that CrossCountry's fare was nearly twice the price of the Northern Franchise dedicated fare and there was headroom for the previous operator of the Northern Franchise to increase its dedicated fares pre-Merger, but it did not do so.[217] The Parties also said that CrossCountry [✂].

10.54 In relation to Arriva's incentives to change unregulated and dedicated fares, the Parties told us that revenue from these fares [✂] as a proportion of total

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213 [✂]
214 This figure includes inter-available fares and Northern Franchise set routed 'not via Doncaster' inter-available fares.
215 A 'forced frequency diversion' indicates what passengers would do if a service were no longer available rather than, for example, in response to a price increase.
216 In relation to the EMT dedicated fare, the Parties argued that for people who wanted to travel at the lowest price (and were therefore willing to book advance purchase tickets on specific trains), EMT would be a valid alternative if the Northern Franchise were to increase or withdraw its dedicated fares, even if sales of EMT dedicated tickets were not currently high. The Parties argued that this constrained the ability of the Northern Franchise to increase or withdraw dedicated fares on this flow.
217 Arriva response to provisional findings, p11.

route revenue. The Parties said that unregulated fares on this flow accounted for less than [✂]% of total route revenue for the Northern Franchise and [✂]% of total route revenue for CrossCountry. The Parties also said that dedicated fares on this flow accounted for less than [✂]% of total route revenue for the Northern Franchise and significantly less than [✂]% of total route revenue for CrossCountry. The Parties said that there would be significant administrative work and risk of unintended consequences of making changes to individual fares.[218]

10.55 The Parties said that National Express coach services offered 16 services per weekday on the flow (six at peak times) with lower fares (£4.00 to £6.10) than the rail services but comparable journey times to Northern Franchise services (with a minimum journey time of 50 minutes). The Parties also said that passengers could make the journey between Leeds and Sheffield by car in around 70 minutes, which was comparable to the rail journey time if travel to/from the rail stations was included.

CMA assessment

- *Share of services and revenues*

10.56 The Northern Franchise and CrossCountry account for approximately [90-100]% of revenues on the flow, with the Merger resulting in a [20-30]% increment from the Northern Franchise services in addition to CrossCountry's [70-80]% share. The third party TOCs serving the flow have a combined revenue share of only [0-5]%.

- *Closeness of pre-Merger competition*

10.57 We consider how closely the Parties' rail services competed pre-Merger. We note that journey times are shorter on the CrossCountry and EMT services at 39 and 41 minutes, respectively, as compared to 55 minutes on the Northern Franchise (although the Northern Franchise offers a cheaper dedicated fare than CrossCountry). The RR ratio from the MOIRA analysis on this flow is [50-60]%, which indicates that the Northern Franchise and CrossCountry services are close alternatives for passengers (in terms of their non-price offer). Although the Parties argued that the RR ratio was close to the 50% threshold adopted by the CMA, we note that the 50% threshold is itself only used as a prioritisation tool given that the Parties

[218] Arriva response to provisional findings, p13.

would retain half the revenue gains from a service degradation at this threshold.

10.58 Leeds to Sheffield is one of the flows on which the previous Northern Rail franchise and CrossCountry both monitored each other's fares. The Parties told us that [✂]. Moreover, [✂].[219]

10.59 We therefore find that, pre-Merger, there was competition between the previous Northern Rail franchise and CrossCountry on this flow, notwithstanding differences in journey times.

- *The Parties' ability to increase unregulated fares*

10.60 We consider the Parties' ability to increase unregulated rail fares on the Leeds to Sheffield flow.

10.61 VTEC is the lead operator on this flow, setting the fully inter-available fare which allows travel on all services including the Northern Franchise and CrossCountry services.[220]

10.62 The Northern Franchise does, however, set the routed inter-available fare which allows travel on all services except via Doncaster on the VTEC services. This fare is generally priced below the fully inter-available fare set by VTEC and valid on 'any permitted' route. These 'not via Doncaster' routed inter-available fares account for the majority of revenue on this flow and are valid for travel on the Northern Franchise, CrossCountry and at most two daily EMT services. Therefore, the Northern Franchise has the ability to increase the 'not via Doncaster' routed inter-available fares on this flow.

10.63 The Northern Franchise also offers a dedicated advance fare which is significantly cheaper than both the routed and fully inter-available fares. The Northern Franchise's dedicated advance fares account for a [✂] share ([✂]%) of the Northern Franchise's revenue on the flow.[221] Moreover, the recent LENNON fare data downloads provided by the Parties and analysed by the CMA also indicate that the [✂].

10.64 Having found that the Parties have the ability to change the unregulated routed inter-available and dedicated fares on the flow, we consider whether

[219] [✂]
[220] We understand this is because of historical reasons to ensure fare consistency on VTEC's longer distance flows. While the Northern Franchise does not currently have the ability to change this fully inter-available fare, it is possible for the Northern Franchise to become the lead operator and hence acquire the ability to set the fully inter-available fares. [✂]. However, we have seen no evidence that any Arriva owned TOC plans to become the lead operator on this flow and [✂]
[221] The Northern Franchise dedicated fares correspond to [✂]% of total flow revenues across all TOCs (for CrossCountry, dedicated fare revenue accounts for [✂]% of total flow revenues).

the level of regulated fares on the flow will restrict the scope for the Parties to increase these unregulated fares post-Merger.

10.65 Table 9 examines the difference between unregulated fares and regulated fares on the Leeds to Sheffield flow. The inter-available off-peak return and the routed inter-available peak day returns are regulated on this flow.

Table 9: Leeds to Sheffield constraint from fare regulation

	Ticket type						
Leeds–Sheffield	*Open return*	*Peak day return*	*Peak single*	*Off-peak return*	*Off-peak day return*	*Off-peak single (Savers)*	*Off-Peak single (CDS)*
Inter-available fare (£)	28.50	17.20	15.30	23.00*	NA	NA	NA
Inter-available fare – flex	*–24%*	*33%*	*50%*	*0%**	*NA*	*NA*	*NA*
Routed inter-available fare (£)	13.90	13.40*	10.80	NA	11.50	NA	NA
Routed inter-available fare – flex	*–4%*	*0%**	*24%*	*NA*	*17%*	*NA*	*NA*

Source: CMA workings of Arriva data.
* Regulated fares.
Note: Flex indicates the percentage difference between the regulated fare and the unregulated fare. A negative percentage indicates that the unregulated fare is above the regulated fare.

10.66 We find that there is headroom for the Parties to increase the level of unregulated fares, in particular as regards the following:

(a) The routed inter-available peak single fare could be increased by up to 24% as the regulated peak day return is set at £13.40 and the unregulated peak single at £10.80.[222] The off-peak day return routed inter-available fare of £11.50 could be increased by up to 17% to the level of the regulated peak day return fare.[223,224]

(b) Dedicated advance fares (as set out in Table 8) are, on average, priced significantly below the walk-up fully and routed inter-available fares in Table 9. For example, the average Northern Franchise dedicated fare is £4.83, which is less than half the routed inter-available peak single fare, providing significant headroom for the Northern Franchise to increase its dedicated fares.[225]

[222] Peak single rail fares are typically priced at least 10 pence below the peak return fare. On this basis, the Parties could still increase the unregulated peak single by 23%.
[223] The Parties may not be able to use the full headroom given that the unregulated fare is an off-peak fare.
[224] If the Northern Franchise were to become the lead operator on the flow and the fare setter for these tickets, the fully inter-available peak day return fare could be increased by up to 33% and the peak single by up to 50%.
[225] In contrast to the walk-up fares these dedicated fares must be booked in advance and are restricted to specific trains. However, the Parties may still have the ability to increase dedicated fares if there is an incentive to do so given the significant headroom available. The average CrossCountry dedicated fare on the flow is £8.51 while the average Northern Franchise dedicated fare on the flow is £4.83.

- *The Parties' incentive to increase fares post-Merger*

10.67 We consider the Parties' incentive to increase unregulated rail fares on the Leeds to Sheffield flow as a result of the Merger.

10.68 In relation to unregulated routed inter-available fares which are set by the Northern Franchise, we note that these fares were constrained pre-Merger by the CrossCountry dedicated fare. If the operator of the Northern Franchise had increased the routed inter-available fare, it would have lost a proportion of revenue to CrossCountry, which was the only significant competing TOC on the flow (accounting for [70-80]% of revenue on the flow). Following the Merger, the Parties will recapture revenue lost to CrossCountry and therefore have an incentive to increase the routed inter-available fares as a result of the Merger.

10.69 In relation to dedicated fares, we note that these fares were constrained pre-Merger by competition from CrossCountry. If the Northern Franchise were to increase or withdraw its dedicated fares, passengers would have been likely to divert to the CrossCountry dedicated fares. Pre-Merger, this would have resulted in a loss of revenue from the Northern Franchise to CrossCountry. Post-Merger, the loss of revenue is re-captured by the Parties, leading to a weakening of the incentive to offer low dedicated fares.

10.70 A [✂] amount of the Northern Franchise's revenue ([✂]%) is generated by fares that are in direct competition with CrossCountry's dedicated fares on this flow. There is therefore scope for the Northern Franchise to increase these dedicated fares as a result of the Merger or to reduce the number of dedicated fares made available to passengers.

10.71 CrossCountry also offers dedicated fares on the flow and, post-Merger, revenue lost from increasing this fare will be re-captured by the Parties, providing CrossCountry with an incentive to increase its dedicated fares as a result of the Merger or to reduce the number of dedicated fares made available to passengers.

10.72 We do not consider EMT as a viable competitor on the flow because it only operates at most two services per day.[226]

10.73 The Parties told us that unregulated and dedicated fares accounted for [✂] of total route revenue. However, we note that these fares are set at the flow level rather than the route level and that evidence from internal documents

[226] Therefore, we do not consider that Northern Franchise or CrossCountry fares are constrained by EMT's fares.

indicates that the Parties consider competition at the flow level in setting rail fares (see paragraph 10.58).

10.74 Following the publication of our provisional findings, we consider further evidence in relation to the Parties' incentive to increase unregulated fares on the Leeds to Sheffield flow.

10.75 We consider the additional annual revenue that the Parties would earn if they raised unregulated rail fares on the overlapping flow by (or by an amount related to) to the maximum headroom available (ie to or close to the level of regulated fares) without any diversion to competitors or other transport modes. The results indicate that if the Parties were to increase their rail fares by, in some cases, the maximum headroom available, the additional revenue generated would be £[✂] per annum.

10.76 In practice, this is an overestimate as if the Parties were to increase rail fares on this flow to the headroom above, they would be likely to lose a proportion of revenue to other transport modes and to people who decide not to travel. Moreover, the Parties are unlikely to increase fares by the maximum headroom available in order to maintain differentials between different fare types. We note, however, that the Parties set rail fares at the flow level and that the cost of adjusting rail fares is unlikely to be significant. We also note that the Parties are not constrained by any third party competitors on this flow. Although we cannot be certain as to the precise size of any potential fare increase post-Merger, there is significant scope for the Parties to earn additional revenue from increasing fares and we therefore consider that the Parties have an incentive to increase rail fares on the Leeds to Sheffield flow post-Merger.

- *Countervailing factors*

10.77 We consider whether there are any countervailing factors which may reduce the Parties' incentive to increase unregulated fares on the flow.

10.78 We do not consider that the alternative transport mode options on this flow are sufficient to constrain the Parties' incentive to increase fares on the Leeds to Sheffield flow.

10.79 In relation to coach services operated by National Express, we note that journey times are longer than on Northern Franchise services, while fares are in line with dedicated fares on the Northern Franchise services. Frequency on the rail services of the Northern Franchise and CrossCountry is significantly higher than the coach services (which offer less than half of the weekday frequency of the rail services). This suggests that Northern

Franchise rail services are likely to be a stronger alternative to the CrossCountry services, than the coach services of National Express.[227] The difference in journey times is more significant when set against the CrossCountry services (and we note that CrossCountry's fares are higher than those on National Express coaches).

10.80 The Parties estimated the journey time by private car between Leeds and Sheffield but did not provide any evidence that the private car would in fact prevent the Parties from increasing rail fares on the Leeds to Sheffield flow.

10.81 We finally note that the MOIRA analysis carried out implicitly takes into account competition from other modes of transport, including private transport, yet the RR ratio still indicates that the Northern Franchise and CrossCountry services are close alternatives on this flow.

- *Summary and conclusion*

10.82 In summary, we note that the Northern Franchise and CrossCountry are the main TOCs on the Leeds to Sheffield flow with a combined revenue share of [90-100]%, while the very limited services 'via Doncaster' appear to be a weak alternative for passengers.

10.83 We find that the Parties have the ability and incentive to increase unregulated fares on the flow given the evidence on the closeness of competition between the Northern Franchise and CrossCountry, the combined share of services and revenue on this flow, the fare setting arrangements, the absence of other viable constraints and the fact that entry barriers would not act as a countervailing factor on this flow.

10.84 We therefore conclude that the Merger has resulted in or may be expected to result in an SLC on the Leeds to Sheffield flow in terms of higher routed 'not via Doncaster' inter-available fares (which are set by the Northern Franchise) and higher Northern Franchise and CrossCountry dedicated fares and/or the volume limitation or withdrawal of dedicated fares on this flow.[228]

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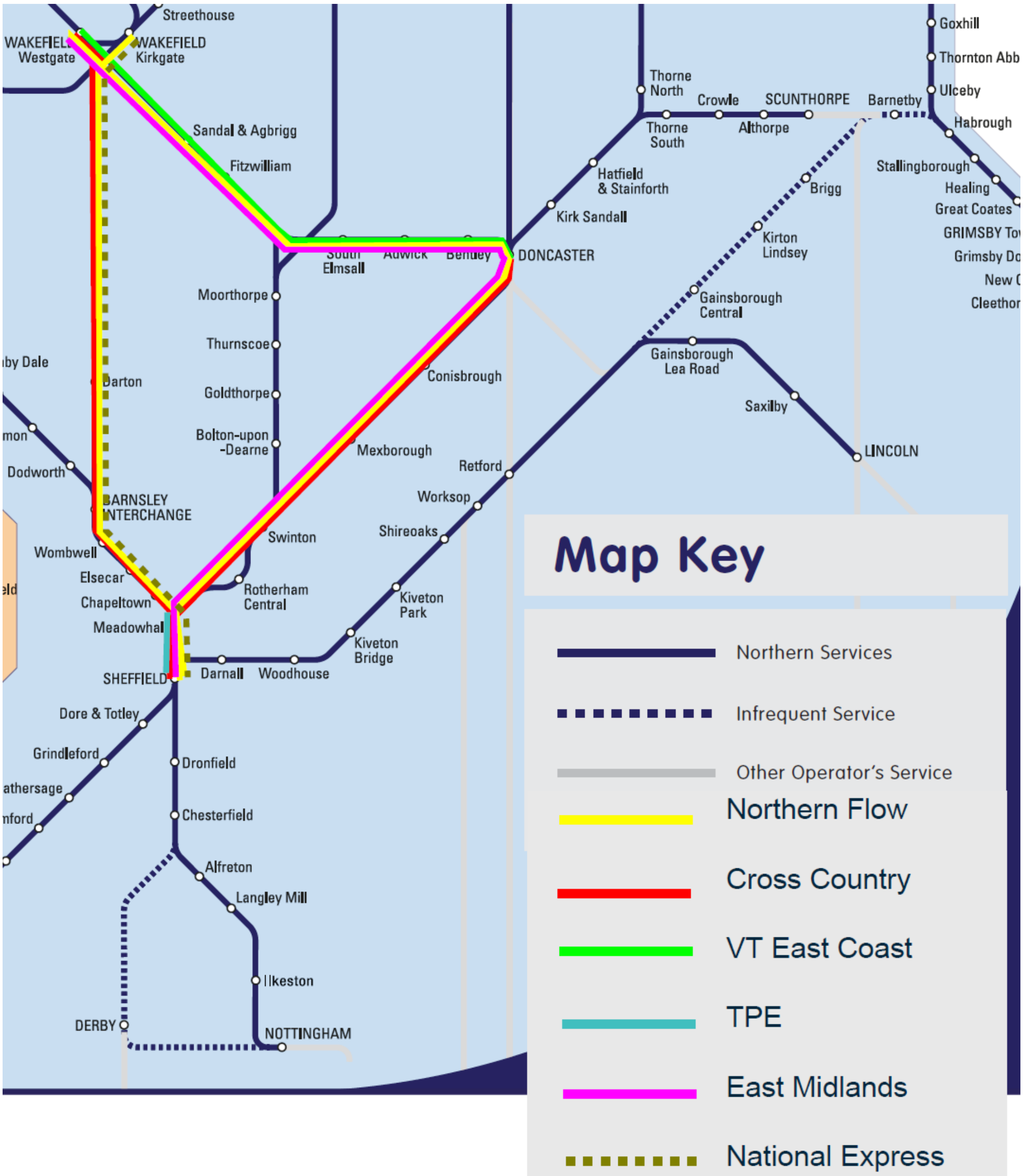
[227] The GJC of the rail services is likely to be more similar than that between the rail and coach services.
[228] We note that should an Arriva TOC become the lead operator of this flow and therefore become the fare setter for fully-inter-available tickets, competition concerns may arise given that Arriva TOCs currently have a combined revenue share of [90-100]% on the flow. We therefore recommend that the DfT considers this concern if an Arriva TOC applies to become the lead operator on the Leeds to Sheffield flow.

Wakefield to Sheffield

10.85 Figure 6 shows the overlap between CrossCountry and the Northern Franchise on the Wakefield to Sheffield flow. There is a significant similarity between this flow and the Leeds to Sheffield flow that we consider above.

Figure 6: Map of Wakefield to Sheffield flow



Source: The Parties.

10.86 Table 10 sets out the number of weekly services on the Wakefield to Sheffield flow. The Northern Franchise and CrossCountry are the main providers of services on this flow, with some indirect services provided by other operators.

Table 10: Number of weekly services on the Wakefield to Sheffield flow

	Direct				*Indirect*			
	Weekday peak	*Weekday off-peak*	*Saturday*	*Sunday*	*Weekday peak*	*Weekday off-peak*	*Saturday*	*Sunday*
Northern	15	28	33	28	0	0	0	0
Grand Central	0	0	0	0	0	0	0	0
CrossCountry	15	20	35	29	0	0	0	0
ATW	0	0	0	0	0	0	0	0
Arriva/Northern + Other					4	8	0	4
Other TOCs	1	4	4	6	0	0	0	0

Source: The Parties.

10.87 Table 11 sets out details of the key data on the Wakefield to Sheffield flow.

Table 11: Wakefield to Sheffield summary data and analysis

Flow characteristics	*Northern*	*Arriva (Other)*	*Third party*
Minimum in-vehicle journey time (minutes)	36	23	24
Third party competitors			TPE, VTEC
Lead operator (fare-setter) on the Any Permitted fares: Northern Franchise			
Inter-available fare (£)*	10.20		
Routed inter-available fare*	9.70		
Dedicated fare (£)†	4.82	4.69	6.67
Share of total flow journeys (%)	[20-30]%	[70-80]%	[0-5]%
Share of flow revenue (%)	[20-30]%	[70-80]%	[0-5]%
TOC overlap flows revenue as % of route revenue (includes filtered out flows)	[30-40]%	[10-20]%	
TOC flow revenue as % if route revenue	[0-5]%	[0-5]%	
Total flow revenue (all operators)			£[✂]
Regulated revenue on flow (%)	[70-80]%		
Fully inter-available fares (%)	[5-10]%		
MOIRA analysis	**All TOCs (£'000)**		**Arriva TOCs' share (%)**
Total gains	[✂]		[60-70]

Source: The Parties and CMA calculations using MOIRA.
* This is the minimum-priced relevant fare on the flow.
† Dedicated fare indicated here is a journey-weighted average (ie ratio of total revenue from advance purchases and total journeys undertaken on these fares).

The views of the Parties

10.88 The Parties told us that the Northern Franchise was already the lead operator on the flow and set inter-available fares for all TOCs on the flow. The Parties said that there was no price competition in respect of these fares between Northern and CrossCountry and that this would not change post-Merger. The Parties also said that Northern was already the flow operator for the 'not via Doncaster' routed inter-available fare on the flow and set routed inter-available fares for the Northern Franchise, CrossCountry and certain

EMT services. The Parties told us that there was no competition in respect of these fares pre-Merger.[229]

10.89 The Parties told us that the Northern Franchise and CrossCountry did not compete closely on this flow given that the Northern Franchise journey times were often significantly longer and the significant disparity on the share of revenues when set against the share of frequencies (ie the Northern Franchise and CrossCountry had comparable frequency, but the Northern Franchise had significantly lower share of revenues on the flow).[230] In this regard, the Parties told us that the RR ratio of [50-60]% on the flow was close to the 50% threshold used by the CMA to prioritise flows and that this gave a conservative view of the closeness of competition given that it essentially modelled a forced frequency diversion rather than a price increase.

10.90 The Parties said that for both the Northern Franchise and CrossCountry, the flow accounted for a small share of route revenue ([✂]), suggesting that Arriva was unlikely to alter fares on the flow.

10.91 The Parties told us that their GJC analysis indicated that the Northern Franchise and CrossCountry services did not compete closely. For example, the Parties said that the Northern Franchise peak time GJC was [✂]% than the CrossCountry GJC.

10.92 The Parties also said that Arriva was restricted in increasing fares post-Merger (with [90-100]% of fares on the flow being inter-available and [70-80]% regulated).[231] The Parties told us that unregulated fares on this flow accounted for only [✂]% of total route revenue for the Northern Franchise and less than [✂]% for CrossCountry.

10.93 The Parties said that the dedicated fares accounted for [✂] of total route revenue for both the Northern Franchise and CrossCountry and would be constrained by the price of regulated fares. The Parties also said that CrossCountry's dedicated fare was nearly twice the price of the Northern Franchise dedicated fare and that there was already headroom for pre-Merger fare increases by the operator of the Northern Franchise. The Parties further stated that EMT's dedicated fares would act as a constraint on the price of their own dedicated fares.[232] The Parties said that there

[229] Arriva response to provisional findings, p14.
[230] [✂]
[231] The inter-available fares quoted by the Parties include both fully and routed inter-available fares.
[232] In relation to the EMT dedicated fare, the Parties argued that for people who wanted to travel at the lowest price (and were therefore willing to book advance purchase tickets on specific trains), EMT would be a valid alternative if the Northern Franchise were to increase or withdraw its dedicated fares, even if sales of EMT

would be significant administrative work and risk of unintended consequences of making changes to individual fares.

10.94 The Parties submitted that there was competition on this flow from National Express (which operates a direct coach service taking 70 minutes and costing £6.60). The Parties said that the car journey took between 40 and 55 minutes.

CMA assessment

- *Share of services and revenues*

10.95 The Northern Franchise and CrossCountry account for around [90-100]% of revenues on the flow, a [20-30]% increment from the Northern Franchise services to CrossCountry's [70-80]% share. The third party TOCs serving the flow have a combined revenue share of only [0-5]%.

- *Closeness of pre-Merger competition*

10.96 We consider how closely the Parties' rail services competed pre-Merger. We note that the CrossCountry journey time is 23 minutes and the Northern Franchise journey time is 36 minutes as the latter calls at more intermediate stations. As set out in Table 11, the average dedicated fares are similar on both CrossCountry and the Northern Franchise. However, the RR ratio of [60-70]% from the MOIRA analysis on this flow indicates that the Northern Franchise and CrossCountry services are close alternatives for passengers (in terms of their non-price offer). Although the Parties argued that the RR ratio was close to the 50% threshold adopted by the CMA, we note that the 50% threshold is itself only used as a prioritisation tool given that the Parties would retain half the revenue gains from a service degradation at this threshold.

- *The Parties' ability to increase unregulated fares*

10.97 We consider the Parties' ability to increase unregulated rail fares on the Wakefield to Sheffield flow.

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dedicated tickets were not currently high. The Parties argued that this constrained the ability of the Northern Franchise to increase or withdraw dedicated fares on this flow.

10.98 The Northern Franchise is the lead operator on this flow, setting the fully inter-available fare. The Northern Franchise also sets the routed inter-available fare which is valid on services that run 'not via Doncaster'.[233]

10.99 The Northern Franchise, CrossCountry and EMT all offer and set dedicated advance purchase fares at a significant discount to the inter-available (all 'any permitted' and 'not via Doncaster') fares set by the Northern Franchise.

10.100 Having found that the Parties have the ability to change the fully inter-available fare, the routed inter-available fare and dedicated fares on the flow, we consider whether the level of regulated fares on the flow will restrict the scope for the Parties to increase these unregulated fares post-Merger.

10.101 Table 12 examines the difference between unregulated fares and regulated fares on the Wakefield to Sheffield flow. The inter-available peak day return and the routed inter-available peak day return are regulated on this flow.

Table 12: Wakefield to Sheffield constraint from fare regulation

	Ticket type						
Wakefield–Sheffield	*Open return*	*Peak day return*	*Peak single*	*Off-peak return*	*Off-peak day return*	*Off-peak single (Savers)*	*Off-peak single (CDS)*
Inter-available fare (£)	16.80	12.10*	10.20	NA	NA	NA	NA
Inter-available fare – flex	*–39%*	*0%**	*19%*	*NA*	*NA*	*NA*	*NA*
Routed inter-available fare (£)	12.20	11.70*	10.20	NA	9.70	NA	NA
Routed inter-available fare – flex	*–4%*	*0%**	*15%*	*NA*	*21%*	*NA*	*NA*

Source: CMA workings of Arriva data.
* Regulated fares
Note: Flex indicates the percentage difference between the regulated fare and the unregulated fare. A negative percentage indicates that the unregulated fare is above the regulated fare.

10.102 We find that there is headroom for the Parties to increase the level of unregulated fares, in particular as regards the following:

(a) The fully inter-available peak single could be increased by up to 19% as the regulated peak day return is set at £12.10 and the unregulated peak single at £10.20.[234]

(b) The routed inter-available off-peak day return could be increased by up to 21% as the regulated peak day return is set at £11.70 and the off-

[233] The proportion of fully inter-available fares is [5-10]%, which is significantly lower than that quoted by the Parties ([90-100]%). The difference between these two figures predominantly arises from routed inter-available fares ([80-90]%), which are set by the Northern Franchise and allow travel on the Northern Franchise, CrossCountry and EMT 'not via Doncaster' and excluding other third party TOC services on the flow which run via Doncaster.
[234] Peak single rail fares are typically priced at least 10 pence below the peak return fare. On this basis, the Parties could still increase the unregulated peak single by 18%.

peak day return at £.9.70.[235] The peak single set at £10.20 could also be increased by up to 15%.[236]

(c) Dedicated advance fares (set out in Table 11) are, on average, priced significantly below the walk-up fully and routed inter-available fares in Table 12. For example, the average Northern Franchise dedicated fare on the flow is £4.82 and the average CrossCountry dedicated fare is £4.69.[237] The Parties therefore have significant headroom to increase their dedicated fares.

- *The Parties' incentive to increase fares post-Merger*

10.103 We consider the Parties' incentive to increase unregulated rail fares on the Wakefield to Sheffield flow as a result of the Merger.

10.104 In relation to the unregulated fully inter-available and routed inter-available fares set by the Northern Franchise, we note that these fares were constrained pre-Merger by CrossCountry's dedicated fares. If the Northern Franchise were to increase the inter-available fares that it sets, passengers might switch to CrossCountry's dedicated fare. These inter-available fares are a significant source of revenue for the Northern Franchise on this flow. Post-Merger, the Parties will re-capture Northern Franchise revenue lost to CrossCountry and will therefore have an incentive to increase the fully and routed inter-available fares post-Merger.

10.105 In relation to dedicated fares, which account for [✂]% of the Northern Franchise's revenue on the flow, the incentive for the Northern Franchise to increase fares was constrained pre-Merger by competition from CrossCountry. If the Northern Franchise were to increase or withdraw its dedicated fare, passengers would have been likely to divert to the CrossCountry dedicated fare. Pre-Merger, this would have resulted in a loss of revenue from the Northern Franchise to CrossCountry. Post-Merger, the loss of revenue is re-captured by the Parties, leading to a weakening of the incentive to offer low dedicated fares.

10.106 We therefore conclude that there is scope for the Northern Franchise to increase these dedicated fares as a result of the Merger or to reduce the number of dedicated fares made available to passengers.

[235] The Parties may not be able to use the full headroom given that the unregulated fare is an off-peak fare.
[236] Peak single rail fares are typically priced at least 10 pence below the peak return fare. On this basis, the Parties could still increase the unregulated peak single by 14%.
[237] The third party dedicated fare is, on average, £6.67. In contrast to the walk-up fares these dedicated fares must be booked in advance and are restricted to specific trains. However, the Parties may still have the ability to increase dedicated fares if there is an incentive to do so given the significant headroom available.

10.107 CrossCountry also offers dedicated fares on the flow which account for [✂]% of its revenue on the flow. Post-Merger, revenue that would have been lost to the Northern Franchise from increasing this fare will be re-captured by the Parties, providing CrossCountry with an incentive to increase its dedicated fares as a result of the Merger or to reduce the number of dedicated fares made available to passengers.

10.108 We do not consider EMT as a viable competitor on the flow because it only operates at most two services per day.[238]

10.109 The Parties told us that unregulated and dedicated fares accounted for a very low percentage of total route revenue. However, we note that these fares are set at the flow level rather than the route level and that evidence from internal documents indicates that the Parties consider competition at the flow level in setting rail fares (see paragraph 10.58). Following the publication of our provisional findings, we consider further evidence in relation to the Parties' incentive to increase unregulated fares on the Wakefield to Sheffield flow.

10.110 We consider the additional annual revenue that the Parties would earn if they raised unregulated rail fares on the overlapping flow by (or by an amount related to) the maximum headroom available (ie to or close to the level of regulated fares) without any diversion to competitors or other transport modes. The results indicate that if the Parties were to increase their rail fares by, in some cases, the maximum headroom available, the additional revenue generated would be £[✂] per annum.

10.111 In practice, this is an overestimate as if the Parties were to increase rail fares on this flow to the headroom above, they would be likely to lose a proportion of revenue to other transport modes and to people who decide not to travel. Moreover, the Parties are unlikely to increase fares by the maximum headroom available in order to maintain differentials between different fare types. We note, however, that the Parties set rail fares at the flow level and that the cost of adjusting rail fares is unlikely to be significant. We also note that the Parties are not constrained by any third party competitors on this flow. Although we cannot be certain as to the precise size of any potential fare increase post-Merger, and although the revenue generated on this flow is lower than on others, there is nevertheless significant scope for the Parties to earn additional revenue from increasing

[238] Therefore, we do not consider that Northern Franchise or CrossCountry fares are constrained by EMT's fares.

fares and we therefore consider that the Parties have an incentive to increase rail fares on the Wakefield to Sheffield flow post-Merger.

- *Countervailing factors*

10.112 We consider whether there are any countervailing factors which may reduce the Parties' incentive to increase unregulated fares on the flow.

10.113 We do not consider that the alternative transport mode options on this flow are sufficient to constrain the Parties' incentive to increase fares on the Wakefield to Sheffield flow.

10.114 In relation to coach services operated by National Express, we consider that the coach is unlikely to act as a significant constraint on the Parties' rail services on the Wakefield to Sheffield flow. The coach service has a much longer journey time than the rail service and the coach services have significantly lower frequency than the rail service, offering just one service per day. We also note that the coach service does not offer lower fares in comparison to the dedicated rail fares. Therefore, the coach is not likely to act as a significant constraint on the Parties' rail services on this flow.

10.115 The Parties estimated the journey time by private car between Wakefield and Sheffield but did not provide any evidence that the private car would prevent Arriva from increasing its rail fares on the Wakefield to Sheffield flow.

10.116 We finally note that the MOIRA analysis carried out implicitly takes into account competition from other modes of transport, including private transport, yet the RR ratio still indicates that the Northern Franchise and CrossCountry are close alternatives on this flow.

- *Summary and conclusion*

10.117 In summary, the Northern Franchise and CrossCountry are the main operators on this flow with a combined revenue share of [90-100]%, while the 'via Doncaster' services appear to be a weak alternative for passengers.

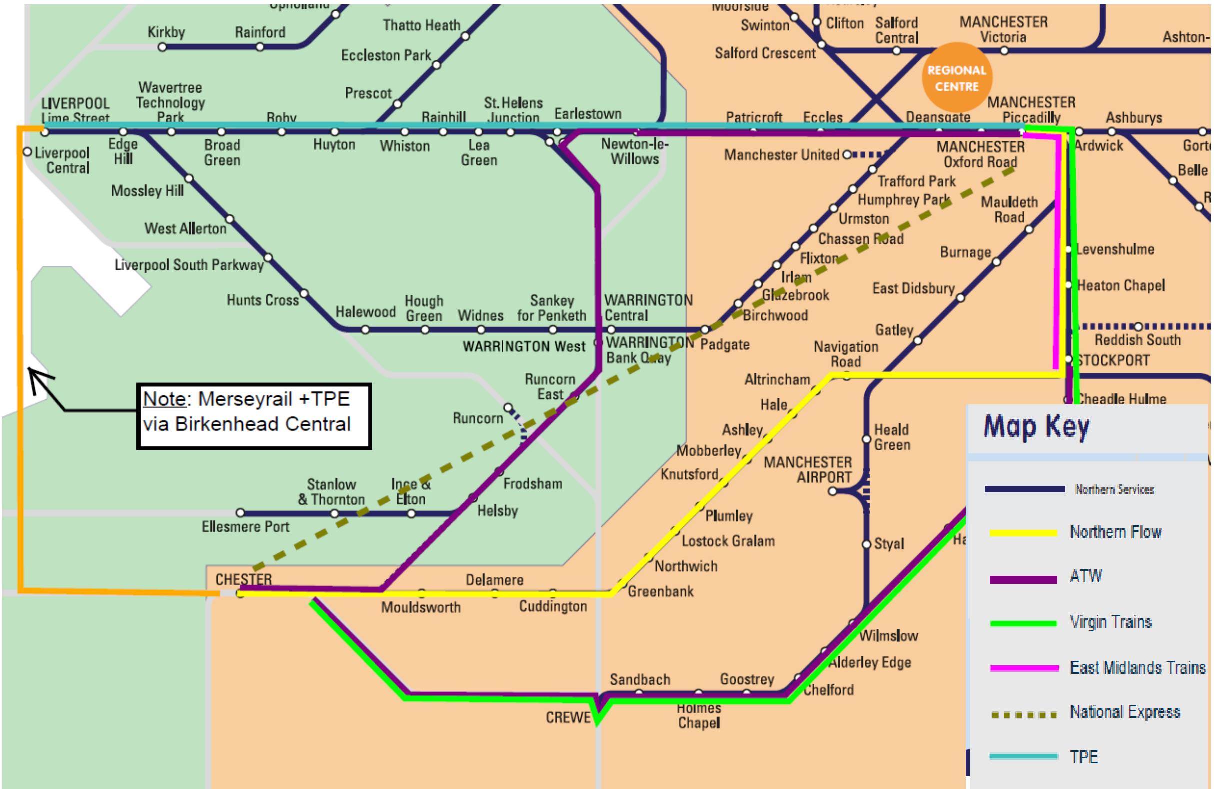
10.118 We find that the Parties have the ability and incentive to increase unregulated fares on the flow given the evidence on the closeness of competition between the Northern Franchise and CrossCountry, the combined share of services and revenue on this flow, the fare setting arrangements, the absence of other viable constraints on this flow and the fact that entry barriers would not act as a countervailing factor on this flow.

10.119 We therefore conclude that the Merger has resulted in or may be expected to result in an SLC on the Wakefield to Sheffield flow in terms of higher dedicated fares and/or the volume limitation or withdrawal of dedicated fares on this flow and higher fully inter-available and routed inter-available fares (which are set by the Northern Franchise).

Chester to Manchester

10.120 Figure 7 shows the overlap between the Northern Franchise and ATW rail services on the Chester to Manchester flow.

Figure 7: Map of Chester to Manchester overlaps



Source: The Parties.

10.121 Table 13 shows the number of weekly services on the Chester to Manchester flow. This flow is predominantly served by ATW which offers both direct and indirect services. There are significant direct services provided by the Northern Franchise and other indirect services combining Virgin Trains West Coast (VTWC) and EMT.

Table 13: Number of weekly services on the Chester to Manchester flow

	Direct				*Indirect*			
Number of weekly services	*Weekday peak*	*Weekday off-peak*	*Saturday*	*Sunday*	*Weekday peak*	*Weekday off-peak*	*Saturday*	*Sunday*
Northern	8	20	29	14	0	0	0	0
GC	0	0	0	0	0	0	0	0
XC	0	0	0	0	0	0	0	0
ATW	14	26	36	31	11	20	27	13
Arriva/Northern only					3	0	0	2
Arriva/Northern + Other					3	10	17	0
Other indirect					9	22	33	1

Source: The Parties.

10.122 The Northern Franchise and ATW are the only two operators offering direct services on this flow (the Northern Franchise via Stockport and ATW via Earlestown). EMT, VTWC, Merseyrail Electrics and TPE provide indirect services on parts of the flow, with VTWC being the only other TOC to offer indirect through services between Chester and Manchester (via Stockport).

10.123 Table 14 sets out details of the key data on the Chester to Manchester flow.

Table 14: Chester to Manchester summary data and analysis

Flow characteristics	*Northern*	*Arriva (Other)*	*Third party*
Minimum in-vehicle journey time (minutes)	95	69	85
Third-party competitors			VT, EMT, TPE
Lead operator (fare-setter) of the Any Permitted fare: ATW			
Inter-available fare (£)*		16.70	
Routed inter-available fare*	12.60		
Dedicated fare (£)†			10.80
Share of total flow journeys (%)	[10-20]%	[80-90]%	[5-10]%
Share of flow revenue (%)	[10-20]%	[80-90]%	[0-5]%
Total overlapping flows revenues (combined) as % of route revenue	[10-20]%	[50-60]%	
TOC flow revenue as % of route revenue	[0-5]%	[0-5]%	
Total flow revenue (all operators)			£[✂]
Regulated revenue on flow (%)			[70-80]%
Fully inter-available fares (%)			[80-90]%
MOIRA analysis at flow level	**All TOCs (£'000)**		**Arriva TOCs' share (%)**
Total gains	[✂]		[80-90]

Source: The Parties and CMA calculations using MOIRA.
* Northern Franchise-set routed inter-available fares are 'via Altrincham' peak day return = £14.90 and off-peak day return =£12.70. All via Altrincham services are operated by the Northern Franchise.
† VTWC dedicated off-peak day return.

The views of the Parties

10.124 The Parties told us that there was very little change to the pre-Merger situation as ATW was and remained the lead operator on the flow and therefore set the inter-available fare.[239] The Parties said that it was open to ATW as the lead operator to increase those fares pre-Merger. The Parties

239 [✂]

also said that the Northern Franchise remained the fares setter for the 'via Altrincham' routed inter-available fare.[240]

10.125 The Parties said that ATW had a share of [80-90]% of the revenue on the flow and the increment from Northern Franchise was [10-20]%. The Parties also said that there were differences in the services offered by ATW and the Northern Franchise, including large journey time differences (69 minutes on ATW compared to 95 minutes on the Northern Franchise).

10.126 The Parties told us that whilst the MOIRA analysis showed an RR ratio of [80-90]%, MOIRA would significantly overstate the position given that it modelled forced diversion through the removal of an origin or destination Northern Franchise station and that adjusting for this suggested that the Northern Franchise and ATW services were not particularly close alternatives.[241]

10.127 The Parties said that all fares were inter-available (including routed inter-available fares) and that a significant proportion of fares on this flow were regulated ([70-80]%), for which prices could not be increased by more than was permitted by regulation. In this regard, the Parties noted that the Chester to Manchester flow was close to being filtered out on the basis of the inter-available fares and regulated fares filter adopted by the CMA. The Parties said that unregulated fares would continue to be effectively constrained by the price of the regulated fare.

10.128 The Parties told us that the Northern Franchise had offered dedicated fares on this flow since September 2016 and that there was no pre-Merger competition between Northern and ATW in respect of dedicated fares. To the extent that the CMA were to conclude that the Northern Franchise and ATW were competing pre-Merger, the Parties said that there would be a greater degree of competition post-Merger.

10.129 In relation to the Parties' incentives to increase fares on the flow, the Parties told us that, in addition to the limited increment to revenue as a result of the Merger, the flow represented only a small proportion of Northern Franchise route revenue ([5-10]%) and that the proportion of Northern Franchise route revenue comprised of overlapping flows was small ([10-20]%).[242]

10.130 The Parties also told us that there was competition from third parties on the flow, including from coach (National Express, 85 to 115 minutes priced at

240 Arriva response to provisional findings, p17.
241 Arriva response to provisional findings, p17.
242 Arriva response to provisional findings, p18.

£7.60 compared to higher inter-available prices on rail), and from private car (which took around 60 to 90 minutes).[243]

CMA assessment

- *Share of services and revenues*

10.131 The Northern Franchise and ATW have a [90-100]% share of revenues on the flow with the Merger resulting in an increment of around [10-20]% from the addition of Northern Franchise services. The third party TOCs serving the flow have a combined revenue share of [0-5]%.

- *Closeness of pre-Merger competition*

10.132 We consider how closely the Parties' rail services competed pre-Merger. ATW operates a frequent service on this flow with a journey time of 69 minutes. The Northern Franchise has a slightly lower frequency and a journey time of 95 minutes. The VTWC services have an average journey time of 85 minutes.

10.133 MOIRA analysis conducted on this flow indicates that ATW is a significant constraint on the Northern Franchise services, with an RR ratio of [80-90]% indicating that the majority of the total gains to other operators are likely to accrue to ATW. This is a strong indication that the Northern Franchise and ATW services are close alternatives for passengers on this flow (in terms of their non-price offer).

- *The Parties' ability to increase unregulated fares*

10.134 We consider the Parties' ability to increase unregulated rail fares on the Chester to Manchester flow.

10.135 ATW is the lead operator and sets the fully inter-available fares on the flow. The Northern Franchise sets the price of routed inter-available fares which are only valid for travel 'via Altrincham'.

10.136 The proportion of fully inter-available fares ([80-90]%) is lower than that quoted by the Parties ([90-100]%). The difference between these two figures arises as the Northern Franchise sets routed (via Altrincham) inter-available

[243] The Parties said that at off-peak times it was likely that the journey time by car would be towards the lower end of the range.

fares, which only allow travel on Northern Franchise services and, in this respect, are effectively Northern Franchise dedicated fares.[244]

10.137 Having found that the Parties have the ability to change the fully inter-available fare and the routed inter-available fare on the flow, we consider whether the level of regulated fares on the flow will restrict the scope for the Parties to increase these unregulated fares post-Merger.[245]

10.138 Table 15 examines the difference between unregulated fares and regulated fares. The inter-available off-peak day return and the routed peak day return are regulated on this flow.

Table 15: Chester to Manchester constraint from fare regulation

	Ticket type						
Chester–Manchester	*Open return*	*Peak day return*	*Peak single*	*Off-peak return*	*Off-peak day return*	*Off-peak single (Savers)*	*Off-peak single (CDS)*
Inter-available fare (£)	NA	17.60	16.70	17.70*	NA		NA
Inter-available fare – flex	*NA*	*1%*	*6%*	*0%**	*NA*	*NA*	*NA*
Routed inter-available fare (£)	15.70	14.90*	13.40	NA	12.70	NA	12.60
Routed inter-available fare – flex	*–5%*	*0%**	*11%*	*NA*	*17%*	*NA*	*18%*

Source: CMA workings of Arriva data.
* Regulated fare.
Note: Flex indicates the percentage difference between the regulated fare and the unregulated fare. A negative percentage indicates that the unregulated fare is above the regulated fare.

10.139 We find that there is headroom for the Parties to increase the level of unregulated fares, in particular as regards the following:

(a) The fully inter-available peak single could be increased by a maximum of 6% as the regulated off-peak return is set at £17.70 and the unregulated peak single at £16.70.[246]

(b) The routed inter-available peak single could be increased by up to 11% as the regulated peak day return is set at £14.90 and the peak single at £13.40.[247] The off-peak routed inter-available day return priced at £12.70 and the off-peak single priced at £12.60 could also be increased by up to 17% and 18%, respectively.[248]

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[244] The Parties told us that there was nothing in the construct of this fare that would prevent another operator from serving the route and the routed inter-available fare being available to that operator as well. The Parties said that this routed inter-available fare permitted travel on other services (including third party operators such as VTWC and EMT) on the Stockport to Manchester part of the flow.
[245] We note that the Parties' dedicated fares on this flow were introduced by the Northern Franchise post-Merger. ATW does not offer dedicated fares on this flow.
[246] The Parties may not be able to use the full headroom given that the unregulated fare is a single fare and the regulated fares a return fare.
[247] Peak single rail fares are typically priced at least 10 pence below the peak return fare. On this basis, the Parties could still increase the unregulated peak single by 10%.
[248] The Parties may not be able to use the full headroom given that the unregulated fare is an off-peak fare.

10.140 We also note that an [✂], indicating that fare regulation was a limited constraint on their fare-setting.[249]

- *The Parties' incentive to increase fares post-Merger*

10.141 We consider the Parties' incentive to increase unregulated rail fares on the Chester to Manchester flow as a result of the Merger.

10.142 Pre-Merger, if the operator of the Northern Franchise were to increase its routed inter-available fares, some passengers would have diverted to the fully inter-available fare set by ATW. Pre-Merger, this would have resulted in a loss of revenue from the operator of the Northern Franchise to ATW. Post-Merger, the loss of revenue is re-captured by the Parties. Furthermore, we note that the Northern Franchise derives a [✂] share of revenue from routed inter-available fares (about [✂]%). The Northern Franchise will therefore have an incentive to increase its unregulated routed inter-available fares post-Merger.

10.143 Moreover, post-Merger the Parties will re-capture revenue lost for an increase in the ATW fully inter-available fare providing ATW with an inventive to increase its fully inter-available fares post-Merger.

10.144 We note that VTWC also serves this flow, but accounts for only [0-5]% of revenue on the flow. The VTWC services are indirect, as are almost half of ATW's daily services, but offer a faster journey time than the Northern Franchise (85 minutes as compared to 95 minutes on the Northern Franchise). VTWC offers dedicated walk-up fares which are priced at £14.00 for a peak day return, £13.20 for a peak single, £10.80 for an off-peak day return and £11.00 for an off-peak single.

10.145 Given VTWC's limited share on the flow, we conclude that competition from VTWC is unlikely to reduce the Parties' incentives to increase fares on this flow.

10.146 Following the publication of our provisional findings, we consider further evidence in relation to the Parties' incentive to increase unregulated fares on the Chester to Manchester flow.

10.147 We consider the additional annual revenue that the Parties would earn if they raised unregulated rail fares on the overlapping flow by (or by an amount related to) the maximum headroom available (ie to or close to the level of regulated fares) without any diversion to competitors or other

[249] [✂]

transport modes. The results indicate that if the Parties were to increase their rail fares by, in some cases, the maximum headroom available, the additional revenue generated would be £[✂] per annum.

10.148 In practice, this is an overestimate as if the Parties were to increase rail fares on this flow to the headroom above, they would be likely to lose a proportion of revenue to other transport modes and to people who decide not to travel. Moreover, the Parties are unlikely to raise fares by the maximum headroom available in order to maintain differentials between different fare types. We note, however, that the Parties set rail fares at the flow level and that the cost of adjusting rail fares is unlikely to be significant. We also note that the Parties are not constrained by any third party competitors on this flow. Although we cannot be certain as to the precise size of any potential fare increase post-Merger, there is significant scope for the Parties to earn additional revenue from increasing fares and we therefore consider that the Parties have an incentive to increase rail fares on the Chester to Manchester flow post-Merger.

- *Countervailing factors*

10.149 We consider whether there are any countervailing factors which may reduce the Parties' incentive to increase unregulated fares on the flow.

10.150 We do not consider that the alternative transport mode options on this flow are sufficient to constrain the Parties' incentive to increase fares on the Chester to Manchester flow.

10.151 We consider that the coach is unlikely to act as a significant constraint on rail fares, given the significant variation in journey times. The National Express services offer significantly lower frequency (three per day) than the overlapping rail services. Furthermore, the apparent preference for shorter journeys on this flow (evidenced by ATW having a larger share of revenues and shorter journey times than the Northern Franchise) would suggest that the car is likely to be a weaker alternative to the rail options on this flow.[250,251]

10.152 The Parties estimated the journey time by private car between Chester and Manchester but did not provide any evidence that the private car would

[250] We note that while ATW is faster compared to the Northern Franchise, it is also more expensive. Therefore passengers face a trade-off between time and fares.
[251] We also note that (all else being equal) competition between transport options is likely to be stronger within mode than across modes and passengers are likely to have a preference for the rail services over the car or coach, as they are not prone to road congestion. We have not received detailed evidence that the car is a viable constraint on the Parties' rail fares on this flow.

prevent Arriva from increasing its rail fares on the Chester to Manchester flow.

10.153 We finally note that the MOIRA analysis carried out implicitly takes into account competition from other modes of transport, including private transport, yet the RR ratio still indicates that the Northern Franchise and ATW services are close alternatives on this flow.

- *Summary and conclusion*

10.154 In summary, the Northern Franchise and ATW provide the majority of services on this flow and together account for [90-100]% of flow revenue. The Northern Franchise sets the routed 'via Altrincham' inter-available fare which is currently only valid on its services and which may attract passengers from the direct and indirect ATW services via Crewe, while ATW sets the fully inter-available fare.

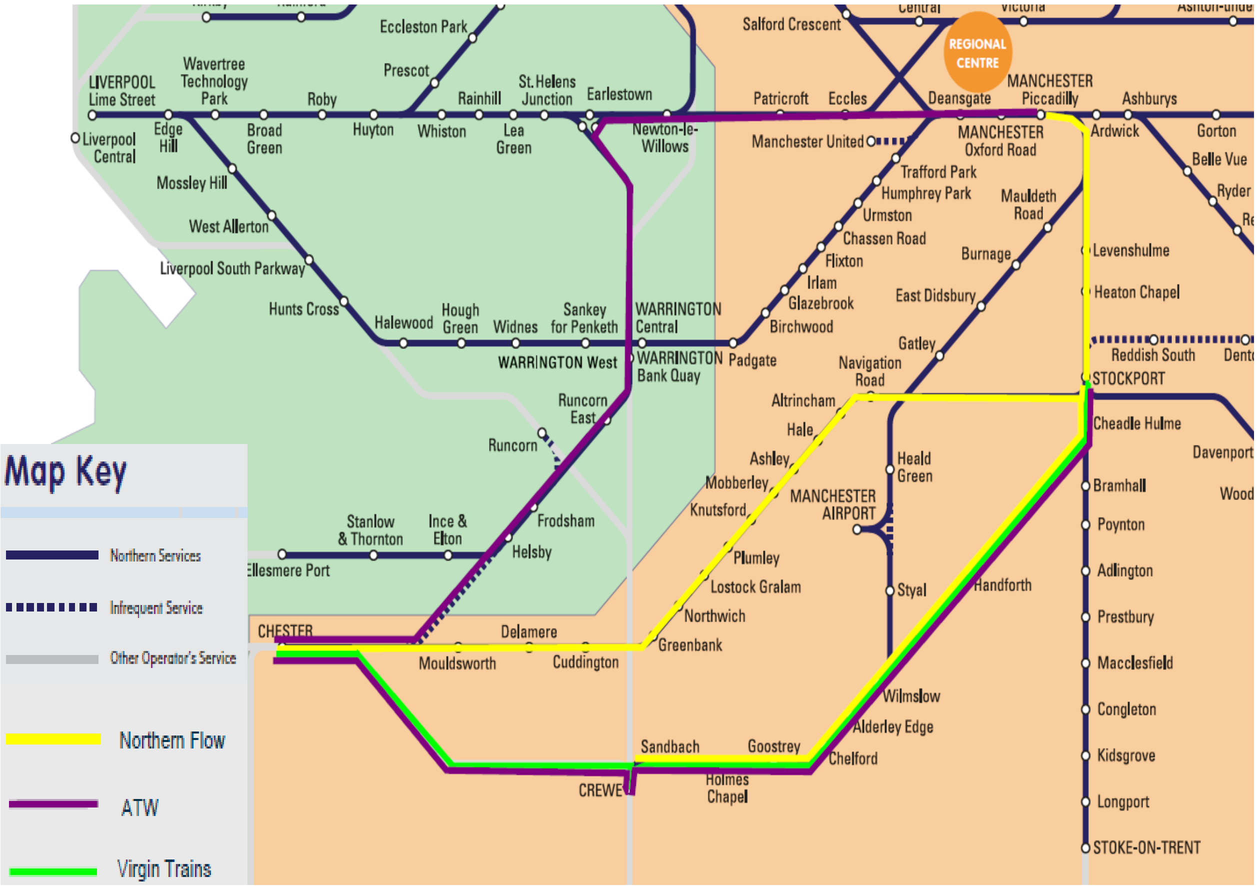
10.155 VTWC offers indirect services which have a faster journey time than the Northern Franchise services and offers a range of dedicated walk-up fares. However, given that VTWC's services account for only [0-5]% of revenue on the flow we conclude that competition from VTWC is insufficient to constrain the Parties' incentive to increase fares post-Merger.

10.156 We therefore conclude that the Merger has resulted in or may be expected to result in an SLC on the Chester to Manchester flow in terms of higher routed inter-available fares set by the Northern Franchise and fully inter-available fares set by ATW.

Chester to Stockport

10.157 Figure 8 illustrates the nature of the overlap between Chester and Stockport. The Northern Franchise is the only TOC offering direct services on the Chester to Stockport flow, via Altrincham. Indirect services between Chester and Stockport via Crewe are operated by ATW and VTWC.

Figure 8: Map of Chester to Stockport overlaps



Source: The Parties.

10.158 Table 16 sets out the number of weekly services on the Chester to Stockport flow. The Northern Franchise provides all the direct services on this flow. Indirect services are provided by ATW and other operators especially on Saturdays.

Table 16: Number of weekly services on the Chester to Stockport flow

	Direct				*Indirect*			
Number of weekly services	*Weekday peak*	*Weekday off-peak*	*Saturday*	*Sunday*	*Weekday peak*	*Weekday off-peak*	*Saturday*	*Sunday*
Northern	15	23	32	14	0	0	0	0
GC	0	0	0	0	0	0	0	0
XC	0	0	0	0	0	0	0	0
ATW	0	0	0	0	11	21	28	11
Arriva/Northern only					4	3	4	12
Arriva/Northern + Other					0	4	3	23
Other indirect					9	16	22	11

Source: The Parties.

10.159 The Northern Franchise operates 38 weekday direct services on this flow (15 in peak hours) but with a longer in-vehicle time given its stopping patterns (taking 74 minutes compared to 61 minutes on ATW). ATW operates indirect services both in the peak and off peak (32 in total for weekdays). VTWC, EMT and TPE also offer indirect services on this flow, although EMT and TPE services require a change of TOC during the journey.

10.160 Table 17 sets out details of the key data on the Chester to Stockport flow.

Table 17: Chester to Stockport summary data and analysis

Flow characteristics	*Northern*	*Arriva (Other)*	*Third party*
Minimum in-vehicle journey time (minutes)	74	61	61
Third-party competitors			VT, EMT, TPE
Lead operator (fare-setter) on the Any Permitted fares: ATW			
Inter-available fare (£)*		16.50	
Routed inter-available fare†	12.00		
Dedicated fare (£)‡			11.30
Share of total flow journeys (%)	[50-60]%	[20-30]%	[10-20]%
Share of flow revenue (%)	[50-60]%	[10-20]%	[20-30]%
Total overlapping flows revenues (combined) as % of route revenue	[10-20]%	([5-10]% XC and [0-5]% ATW)	
TOC flow revenue as % of route revenue	[0-5]%	[0-5]%	
Total flow revenue (all operators)			£[✂]
Regulated revenue on flow (%)			[30-40]%
Fully inter-available fares (%)			[30-40]%
MOIRA analysis	**All TOCs (£'000)**		**Arriva TOCs' share (%)**
Total gains	[✂]		[50-60]

Source: The Parties and CMA calculations using MOIRA.
* Peak single set by ATW. Peak return £17.70.
† Off-peak single. Regulated peak day return £14.10, set by Northern and 'via Altrincham'.
‡ VTWC set dedicated walk-up peak day return.

The views of the Parties

10.161 The Parties told us that ATW remained the lead operator on this flow post-Merger and set the inter-available fares. The Parties also told us that the Northern Franchise remained the fare-setter on the 'via Altrincham' routed inter-available fare. The Parties said that it was open to either operator to have increased its fares pre-Merger.[252]

10.162 The Parties told us that Northern Franchise and ATW services operated on different tracks, with both ATW and VTWC operated services running via the interchange at Crewe and Northern Franchise services operating directly via Altrincham.[253] The Parties said that ATW and the Northern Franchise were not close competitors given the journey time difference between them (around 13 minutes) and the fact that there was an interchange involved on the ATW services. The Parties also said that passengers may overall have a preference for a direct journey on the Northern Franchise, even though it involved a longer journey time.

252 Arriva response to provisional findings, p21.
253 [✂]

10.163 The Parties told us that their analysis of GJC indicated that VTWC was an effective competitor to the Northern Franchise and ATW. For example, the Parties said that the VTWC GJC was only [0-5]% higher than the direct Northern Franchise services and [0-5]% lower than ATW. The Parties also said that VTWC accounted for [20-30]% of revenue on the flow compared to ATW's [10-20]% and had a journey time (61 minutes) which was the same as on ATW.

10.164 The Parties said that if the Northern Franchise were to increase fares on this flow, a significant proportion of passengers may therefore divert to the VTWC services rather than ATW.

10.165 The Parties also argued that the flow accounted for a very small proportion of route revenues, for example accounting for considerably less than [✂]% of ATW route revenues and all overlap flows on the route accounting for approximately [0-5]% of ATW route revenues.

10.166 The Parties told us that the RR ratio ([50-60]%) was close to the threshold of 50% which the CMA used to prioritise flows and therefore indicated that ATW and the Northern Franchise were not particularly close competitors. The Parties said that the RR ratio significantly overstated the position given that it essentially modelled a forced frequency diversion rather than a price increase and that adjusting for this suggested that the Northern Franchise and ATW were not particularly close competitors.[254]

10.167 The Parties also said that there was competition from private transport (with the car journey time ranging from 50 to 80 minutes).[255]

CMA assessment

- *Share of servissces and revenues*

10.168 The Northern Franchise accounts for [50-60]% of revenue on the flow and ATW for [10-20]%. Post-Merger, the Parties therefore account for [70-80]% of revenue on the flow with an increment of [10-20]% as a result of the addition of the ATW services. Third party TOCs serving the flow account for a combined revenue share of [20-30]%.

[254] Arriva response to provisional findings, p21.
[255] The Parties said that at off-peak times, it was likely that the journey time by car would be towards the lower end of the range.

- *Closeness of pre-Merger competition*

10.169 We consider how closely the Parties' rail services competed pre-Merger. The Northern Franchise direct journey time is 74 minutes and the ATW indirect journey time is 61 minutes. VTEC also offers a journey time of 61 minutes through its indirect services. The RR ratio of [50-60]% from the MOIRA analysis is a strong indication that the Northern Franchise and ATW services are close alternatives for passengers on this flow (in terms of their non-price offer). Although the Parties argued that the RR ratio was close to the 50% threshold adopted by the CMA, we note that the 50% threshold is itself only used as a prioritisation tool given that the Parties would retain half the revenue gains from a service degradation at this threshold.

- *The Parties' ability to increase unregulated fares*

10.170 We consider the Parties' ability to increase unregulated rail fares on the Chester to Stockport flow.

10.171 ATW is the lead operator and sets the fully inter-available fares on the flow. The Northern Franchise sets the price of routed inter-available fares which are only valid for travel 'via Altrincham'.

10.172 Having found that the Parties have the ability to change the fully inter-available fare and the routed inter-available fare on the flow, we consider whether the level of regulated fares on the flow will restrict the scope for the Parties to increase these unregulated fares post-Merger.

10.173 Table 18 examines the difference between unregulated fares and regulated fares. The inter-available off-peak day return and the routed peak day return are regulated on this flow.

Table 18: Chester to Stockport constraint from fare regulation

	Ticket type						
Chester–Stockport	*Open return*	*Peak day return*	*Peak single*	*Off-peak return*	*Off-peak day return*	*Off-peak single (Savers)*	*Off-peak single (CDS)*
Inter-available fare (£)	NA	NA	16.50	17.70*	NA	NA	NA
Inter-available fare – flex	*NA*	*NA*	*7%*	*0%**	*NA*	*NA*	*NA*
Routed inter-available fare (£)	15.30	14.10*	12.90	NA	12.10	NA	12.00
Routed inter-available fare – flex	*–9%*	*0%**	*9%*	*NA*	*17%*	*NA*	*18%*

Source: CMA workings of Arriva data. The dedicated fare is offered by VTWC.
* Regulated fares.
Note: Flex indicates the percentage difference between the regulated fare and the unregulated fare. A negative percentage indicates that the unregulated fare is above the regulated fare.

10.174 We find that there is headroom for the Parties to increase the level of unregulated fares, in particular as regards the following:

(a) The fully inter-available peak single could be increased by a maximum of 7% as the regulated off-peak return is set at £17.70 and the unregulated peak single at £16.50.[256]

(b) The routed inter-available peak single could be increased by up to 9% as the regulated peak day return is set at £14.10 and the peak single at £12.90.[257] The off-peak day return priced at £12.10 and the off-peak single priced at £12.00 could also be increased by up to 17% and 18%, respectively.[258]

- *The Parties' incentive to increase fares post-Merger*

10.175 We consider the Parties' incentive to increase fares on the Chester to Stockport flow as a result of the Merger.

10.176 Pre-Merger, if the Northern Franchise were to increase its routed inter-available fare, some passengers would have diverted to the fully inter-available fare set by ATW. Pre-Merger this would have resulted in a loss of revenue from Northern Franchise to ATW. Post-Merger, the loss of revenue is re-captured by the Parties. Furthermore, we note that the Northern Franchise derives a [✂] share of revenue from routed inter-available fares (about [✂]%). The Northern Franchise will therefore have an incentive to increase its unregulated routed inter-available fares post-Merger.

10.177 Moreover, post-Merger the Parties will re-capture revenue lost for an increase in the ATW fully inter-available fare providing ATW with an inventive to increase its fully inter-available fares post-Merger.

10.178 We note, however, that VTWC is a competitor on this flow, accounting for [20-30]% of revenue on the flow. The VTWC services are indirect, as are ATW's services, but offer a faster journey time than the Northern Franchise (61 minutes as compared to 74 minutes on the Northern Franchise) and the same journey time as ATW's services.

10.179 VTWC also competes on this flow by offering dedicated walk-up fares which are lower than the corresponding ATW and Northern Franchise fares set out in Table 18 above. For example, the VTWC off-peak day single is priced at

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[256] Peak single rail fares are typically priced at least 10 pence below the peak return fare. On this basis, the Parties could still increase the unregulated peak single by 7%. We also note that the off-peak fare could not be used by passengers travelling at peak times.
[257] Peak single rail fares are typically priced at least 10 pence below the peak return fare. On this basis, the Parties could still increase the unregulated peak single by 9%.
[258] The Parties may not be able to use the full headroom given that the unregulated fare is an off-peak fare.

£9.50 on this flow. In contrast, neither the Northern Franchise nor ATW offer dedicated fares on this flow.

10.180 We conclude that competition from VTWC may reduce the Parties' incentive to increase fares on this flow.

10.181 Following the publication of our provisional findings, we consider further evidence in relation to the Parties' incentive to increase unregulated fares on the Chester to Stockport flow.

10.182 We consider the additional annual revenue that the Parties would earn if they raised unregulated rail fares on the overlapping flow by (or by an amount related to) the maximum headroom available (ie to or close to the level of regulated fares) without any diversion to competitors or other transport modes. The results indicate that even if the Parties were to increase their rail fares by, in some cases, the maximum headroom available, the additional revenue generated would be only £[✂] per annum.

10.183 In practice, if the Parties were to increase rail fares on this flow, they would be likely to lose a proportion of revenue to VTWC, other transport modes and to people who decide not to travel. Moreover, the Parties are unlikely to increase rail fares by the maximum headroom available in order to maintain differentials between different fare types.

10.184 We find that the Parties do not have significant scope to earn additional revenue from increasing rail fares on the Chester to Stockport flow and the Parties are therefore unlikely to pursue a strategy to increase unregulated fares on this flow.

- *Summary and conclusion*

10.185 In summary, the Northern Franchise sets the routed 'via Altrincham' inter-available fare which is only valid on its services and which may attract passengers from the indirect ATW and VTWC services.

10.186 VTWC offers indirect services which have a faster journey time than the Northern Franchise services and the same journey time as the ATW services. Moreover, VTWC offers a range of dedicated walk-up fares in competition with the Parties. VTWC's services account for [20-30]% of revenue on the flow and we conclude that VTWC will constrain the Parties' incentive to increase fares post-Merger.

10.187 Moreover, following provisional findings, we undertook further assessment of the Parties' incentive to increase unregulated rail fares and find that the

Parties do not have sufficient incentive to increase unregulated fares on this flow post-Merger.

10.188 We therefore conclude that the Merger has not resulted or may not be expected to result in an SLC on the Chester to Stockport flow.

Conclusion

10.189 We conclude that the Merger has resulted in or may be expected to result in an SLC on the following flows:

(a) Leeds to Sheffield;

(b) Wakefield to Sheffield; and

(c) Chester to Manchester.

10.190 We conclude that the Merger has not resulted in or may not be expected to result in an SLC on the remaining eight flows identified for detailed assessment.

11. The effect of the Merger on overlapping bus and rail services

11.1 In this section we set out the competitive effects of the Merger on the overlapping bus and rail services.

11.2 We examine whether the Merger may have horizontal unilateral effects on flows on which Arriva's bus services overlap with the Northern Franchise (the 'overlapping bus and rail services') such that the joint operator of overlapping bus and rail services has the ability and incentive to increase fares and/or reduce service quality post-Merger.

11.3 Pre-Merger, the overlapping bus and rail services may have been substitutes for passengers and, if the operator of the bus service had increased fares or reduced service quality, then a proportion of bus passengers may have switched to the overlapping Northern Franchise service. If this potential diversion was significant, bus fare increases or reductions in bus service quality would have been unprofitable and, as such, would not have been attempted by Arriva.

11.4 Post-Merger, the bus services and the overlapping Northern Franchise rail service are owned by the Parties and bus fare increases or reductions in bus service quality may become profitable as a proportion of the passengers lost from buses will now be re-captured by the Parties' rail services. This is most likely to be the case where the overlapping bus and rail services are similar in terms of destinations, access/egress times, fares, frequencies, journey times and other quality aspects of the offer (for example the level of comfort provided on the services).[259]

Theory of harm: The Parties' ability to increase bus fares or degrade non-price aspects of bus services post-Merger

11.5 We examine whether the Merger may result in an increase in fares and/or a degradation of non-price aspects (including journey time, frequency of service and service quality) of the Parties' bus and rail services on the overlapping bus and rail services as, post-Merger, lost customers from the Northern Franchise could be re-captured by Arriva's local bus services.

11.6 As set out in the assessment of regulatory constraints in Section 8, we conclude that the Parties have limited ability to change non-price aspects of the Northern Franchise rail services (see paragraph 8.64). We also conclude that the Parties' ability to increase certain fares is limited by fare regulation (see paragraphs 8.61 to 8.63). No such regulation applies to commercial bus services. In addition, passengers switching from bus to rail may lead to cost savings in bus operations (eg if it allows the number of bus services to be reduced). In contrast, cost savings in rail operations are unlikely if passengers switch from rail to bus.[260] Taking account of all these factors, we consider that, in respect of the overlapping bus and rail flows, the Parties are more likely to have an incentive to increase bus fares rather than rail fares as a result of the Merger.

11.7 We therefore focus our competitive assessment on whether the Parties have the ability and incentive to increase fares or degrade non-price aspects of their bus services as a result of the Merger given that customers lost from Arriva's local bus services may be captured by the Northern Franchise.

11.8 We focus our assessment of the competitive effects of the Merger on the 89 flows failing the filters set out in Section 9.

Framework for the competitive assessment

11.9 In this section we set out our approach to assessing the Parties' ability and incentive to increase bus fares or degrade non-price aspects of bus services as a result of the Merger.

[259] Rail and bus services may still be substitutes when there are differences in some of these factors, for example lower fares on buses may offset longer journey times.
[260] In particular, we note that franchised TOCs have franchise obligations which govern their timetables.

11.10 We first consider the Parties' ability to increase bus fares or degrade non-price aspects of bus services post-Merger, including the role of graduated fare structures, network and zonal tickets and relationships with local authorities.

11.11 We then consider the factors relevant to the Parties' incentive to increase bus fares or degrade non-price aspects of bus services post-Merger, including the proportion of route revenue accounted for by an overlapping flow, the role of the Northern Franchise profit sharing arrangements, the duration of the Northern Franchise, the closeness of competition between bus and rail services pre-Merger, competition from other operators and the level of additional profit that the Parties might earn from increasing bus fares as a result of the Merger.

The Parties' ability to increase bus fares or degrade non-price aspects of bus services post-Merger

11.12 There are a number of ways in which Arriva could attempt to increase the profitability of its bus services post-Merger. For example:

(a) by selectively increasing fares on flows where there is scope to do so;

(b) by reducing frequencies and/or the hours of operation of bus services; and/or

(c) by diverting buses to bus stops outside the catchment area of the railway station in order to divert passengers onto rail services from bus services.

Graduated fare structure – ability to increase fares

- *The views of the Parties*

11.13 The Parties told us that Arriva had little ability to flex fares on individual flows because fares must be priced consistently across fare stages.[261] The Parties said that in bus operations across the Northern Franchise area, the graduated fare structure meant that the ability to increase the fare on a particular sub-segment of a route, without broader consequential changes to the fare structure, was constrained by the next price point in the graduated structure.[262]

[261] Arriva initial submission, paragraph 10.19.
[262] [✂]

- *CMA assessment*

11.14 Fares on individual flows may be constrained by graduated fare structures. However, this may not mean that Arriva has no ability or incentive to increase fares within a range determined by existing fare stages. The fare stage matrices on routes on which Arriva provided fare stage data suggest that, for a given fare stage, different fares are charged. Therefore, we find that Arriva has the ability to increase the fare on a flow post-Merger if the pre-Merger fare is below the highest fare at this stage. In particular, Arriva would be able to do so without adjusting the overall structure of the fares on non-overlapping flows on the route.

The impact of network tickets and zonal (area) tickets – ability to increase fares

- *The views of the Parties*

11.15 In relation to certain flows, the Parties told us that Arriva's ability to increase fares was limited as Arriva's area tickets (such as the 'All Yorkshire Zone' Arriva network ticketing scheme), which have zonal pricing, act as an upper limit to Arriva's fares on individual flows and routes.[263]

11.16 The Parties also told us that Arriva's ability to flex fares was constrained on some routes by the availability of multi-operator tickets.[264]

- *CMA assessment*

11.17 We consider that the availability of multi-operator tickets may be a constraint on Arriva's scope to increase fares because passengers have the ability to switch to multi-operator tickets if those tickets are cheaper.[265]

11.18 We conclude that the existence of zonal tickets and multi-operator tickets may only constrain Arriva's ability to increase fares for its bus services in certain circumstances, as a multi-operator ticket may only act as a constraint if it creates a fare ceiling that is likely to be binding, ie if Arriva's fares are the same as, or just below, the multi-operator fare.

[263] [✂]
[264] Arriva initial submission, paragraph 10.21.
[265] Arriva does not have the ability to increase multi-operator fares and needs the consent of all parties involved in providing these tickets.

11.19 We consider fare stages, Arriva's zonal tickets and multi-operator tickets, where relevant, in the assessment of overlapping bus and rail flows.[266]

Relationship with local authorities

- *The views of the Parties*

11.20 The Parties also told us that Arriva might not be able to adjust service quality on buses because of existing regulatory constraints. For example, the Parties said that the existence of VPAs or QPSs reduced Arriva's ability to flex a service at the flow level.[267]

11.21 In relation to fares, the Parties told us that whilst local authorities did not generally control Arriva's bus fares directly, they did exercise an indirect constraint. For example, the Parties told us that Arriva North East provided prior notice of fare changes to local authorities before implementing the changes and that fares were among a number of bus service parameters which local authorities monitored. The Parties said that if Arriva were to notify an unjustifiable increase in fares to the relevant PTEs and councils, Arriva would expect these authorities to make their concerns about those proposed fare increases known to Arriva and to discuss those concerns with it.[268] The Parties also argued that almost every service and fare change was subject to scrutiny and comment by the West Yorkshire Combined Authority.

- *CMA assessment*

11.22 As set out in paragraph 8.84, the importance of relationships between LTAs and bus operators was also emphasised by a number of LTAs and transport operators. However, a number of LTAs stated that they had no direct influence, and limited influence in practice, over commercial bus operators.

11.23 We have not found convincing evidence on whether and how Arriva's relationships with councils or PTEs in fact inhibit Arriva to flex its fares or services. In particular, we have not seen examples of Arriva being restricted in increasing a bus fare as a result of intervention by a PTE or council. Moreover, in our review of internal documents [✂].

[266] We focus our assessment of the impact of network and zonal tickets on the flows on which we provisionally found an SLC. We note the presence of a flat fare structure in Merseyside in relation to our assessment of overlapping flows in that area.
[267] Arriva response to issues statement, paragraph 5.2.
[268] Arriva response to provisional findings, p25.

The Parties' incentives to increase bus fares or degrade non-price aspects of bus services post-Merger

11.24 The Parties told us that in setting fares, Arriva needed its fares to remain competitive or become more competitive with rival bus operators and that fares needed to remain competitive or become more competitive with other modes of transport in certain instances.[269] The Parties also told us that a number of other factors, including regulation, potential competition and entry restricted Arriva's incentives to increase fares. We consider these factors below.

Flow revenue as a proportion of route revenue

- *The views of the Parties*

11.25 The Parties told us that due to the costs involved in changing the fare structure and/or degrading service quality, Arriva had a very low incentive to adjust fares if the revenue share of a flow in the overall route is very small.[270]

11.26 The Parties also told us that as each flow was part of a route, which itself was part of a wider bus network, a reduced service or higher price on one flow was likely to have consequences for other flows on the route. The Parties said that, on the supply side, any cost savings from reducing bus frequencies or increasing fares were uncertain and case specific and that bus companies optimised their networks by interworking buses between different routes during the day.

- *CMA assessment*

11.27 We note that adjusting the fare stage on a flow may have relatively low costs (subject to not adversely affecting the coherence of fares on the wider route) and that the Parties may therefore have an incentive to increase fares at the flow level if competition is reduced as a result of the Merger.

11.28 However, adjusting non-price aspects of a flow, such as frequency or other aspects of the service, including the quality of buses, could affect the whole route and therefore the incentive to adjust non-price aspects may depend on the importance of the flow to the route as a whole.

11.29 We consider that the Parties are less likely to have an incentive to adjust factors such as frequency and service quality that affect the whole route

[269] Arriva initial submission, paragraph 10.24.
[270] Arriva initial submission, paragraph 10.24.

unless the flow(s) on which competition concerns arise account for a significant part of the route. We therefore focus our assessment on the Parties' ability and incentive to increase bus fares as a result of the Merger.

11.30 As set out in Section 9, we filter out flows on which flow revenue accounts for less than 10% of route revenue (see paragraph 9.25). We also consider the proportion of route revenue accounted for by a flow in the flow-by-flow competitive assessment as a measure of the Parties' incentive to increase bus fares in response to changes in the competitive conditions on a flow as a result of the Merger.

Northern Franchise profit sharing

- *The views of the Parties*

11.31 The Parties also told us that they had no incentive to move passengers from Arriva bus services to the Northern Franchise due to the requirement to share a proportion of Northern Franchise profits with the DfT above a certain threshold.

- *CMA assessment*

11.32 We examine the profit sharing thresholds in relation to rail services in Section 8 (see paragraph 8.34). Although profit sharing does not restrict the Parties' behaviour directly, it may affect Arriva's incentives to increase the patronage of the Northern Franchise over and above its projected levels.

11.33 Given the relatively small number of flows that are under consideration, we do not consider that this can be expected to have a direct impact on Arriva's incentives in respect of the relevant flows, although we recognise that if Arriva's performance is strong across the Northern Franchise there could be a scenario where the incentives are affected by the profit sharing arrangements.

The duration of the Northern Franchise

- *The views of the Parties*

11.34 The Parties said that Arriva had been in the bus sector for approximately 30 years and, in contrast, the Northern Franchise was transitory, lasting for nine to ten years. The Parties said that this acted as a considerable commercial disincentive to Arriva to make modifications to its bus services with a view to potentially recouping associated losses via Northern Franchise rail services and that after franchise expiry Arriva may risk losing the revenue generated on rail by shifting passengers from bus to rail.

11.35 The Parties also said that given the churn of bus passengers and the overall decline of bus patronage, there would be a significant risk that Arriva could not win back lost passengers – especially after a period of nine years by which time it would have done irreparable harm to a long-standing core part of its business.[271]

- *CMA assessment*

11.36 We conclude that the limited time of the Northern Franchise award does not reduce Arriva's incentive to optimise its profits across its rail and bus business.

(a) While transitory in nature, nine to ten years is a sufficient amount of time to implement changes to take into account additional profit opportunities for Arriva and significantly exceeds the two-year horizon over which the CMA would typically assess the competitive effects of a merger. In particular, as the Parties have argued, if there is a relatively low cost to entry or expansion, the transitory nature of the Northern Franchise does not constitute an effective barrier to implement otherwise profitable changes.

(b) In addition, after the expiry of the Northern Franchise, Arriva bus and Northern rail franchise services will be able to compete for passengers on the overlapping routes and flows. In particular, with the expiry of the Northern Franchise contract, Arriva could respond to the increase in competition by decreasing fares and potentially attracting customers from Northern Franchise services.

Closeness of competition between bus and rail services pre-Merger

- *The views of the Parties*

11.37 The Parties told us that it was critical to assess whether the bus and rail services in question competed in any meaningful way pre-Merger.

11.38 The Parties told us that they supported the use of a GJC approach, along with other evidence of customer preference and switching behaviour, as a

[271] Arriva response to provisional findings, p27.

measure of the closeness of competition between bus and rail.[272] The Parties said that a 10% difference between GJC on overlapping bus and rail services was an appropriately cautious benchmark by which to assess whether or not overlapping bus and rail flows were likely to be close substitutes as a 5 to 10% threshold is used in the 'SSNIP' test commonly used to examine whether two goods or services are in the same market.

11.39 The Parties further argued that a small GJC differential did not automatically indicate that the services in question were close substitutes.[273]

- *CMA assessment*

11.40 We assess the closeness of competition between bus and rail services on overlapping flows by considering the similarity of services in terms of fares, frequency, journey times, whether services are direct and any other relevant flow-specific considerations. Where the necessary data is available, we calculate the GJC of services. The GJC is a measure of the overall cost of a journey and is made up of a number of component costs including fares, journey time and frequency.

11.41 We consider that a threshold of 10% is too low to be used as a filter to exclude overlapping flows from detailed assessment given that GJC calculations do not capture all elements of passenger preferences. Adopting a threshold of 10% would therefore risk excluding flows on which there may be competition concerns.

11.42 We adopt a more cautious threshold of 25%, above which we consider that bus and rail services are less likely to be close competitors and that, as such, Arriva's incentive to increase bus fares, or decrease non-price aspects of its service offering is likely to be lower on these flows post-Merger. We therefore prioritise our detailed assessment of overlapping flows where the GJC differential is below 25%. In the competitive assessment we consider the level of GJC in the assessment of each flow 'in the round' alongside other evidence regarding the closeness of competition between bus and rail services.

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[272] We use a different methodology to the Parties to calculate GJC. In particular, we use the approach suggested in the Passenger Demand Forecasting Handbook (PDFH), while the Parties use the approach specified in WebTAG. We note that one difference is the approach to accounting for frequency of service. While PDFH uses a frequency penalty approach, WebTAG uses wait time approach.
[273] Arriva response to provisional findings, p27.

Competition from other operators

11.43 We initially exclude flows from detailed assessment where third party operators are likely to be an effective competitor, as the incentives to flex fares or service quality are likely to be diluted if a significant proportion of passengers have alternative operators to which they may divert in the event of degradation of the Parties' rail services (see paragraph 9.11).

11.44 In examining the remaining flows, we consider the number of competitors and the frequency of their services.

Profit incentive

- *The views of the Parties*

11.45 The Parties told us that, on the flows failing the filters, the profitability of increasing bus fares or degrading service quality was very low.[274] As a result, the Parties said that Arriva would not have a material incentive to flex fares or service quality on those flows.

11.46 The Parties used the diversion ratios from their survey to calculate the diversion of passengers to the Northern Franchise (ie revenue retained) and to other competitors or modes (ie revenue lost) in response to a 10% increase in bus fares, reduction in service frequency and cancellation of service. The Parties told us that their analysis suggested that, on average, in each of the scenarios the increase in profitability from such a strategy was low.

- *CMA assessment*

11.47 We have a number of methodological concerns regarding the Parties' analysis:

(a) As we set out in paragraphs 11.54 to 11.63, we have concerns about the reliability of the Parties' survey and the resulting estimates of the diversion ratios at a flow level and conclude that whilst we can place some evidential weight on the average results, the flow level results may be unreliable.

(b) For flows that were not surveyed, the Parties used an average diversion ratio. However, this might misrepresent the actual diversion ratio on a flow. As the survey results indicate, there is variation in the diversion

[274] [✄]

ratios between flows. The profit incentive on individual flows might therefore be over or underestimated. On these flows, we note that the diversion ratios do not account for flow-specific characteristics.

(c) We have some concerns regarding the methodology used to calculate the profit incentive based on diversion ratios. In particular, as set out in the discussion of the Parties' survey of certain overlapping bus and rail flows (see paragraphs 11.54 to 11.63), we have concerns regarding the accuracy of the diversion ratios at flow level and, consequently, regarding their use in the profitability calculations.

11.48 Following provisional findings and in light of further submissions from the Parties on their ability and incentive to increase fares on the overlapping bus and rail flows on which we provisionally found an SLC, we analyse the Parties' incentive to increase fares on these flows.

11.49 We adopt a similar approach to the profit incentive analysis submitted by the Parties.[275] For the purposes of our analysis, we apply the average diversion ratios estimated from the Parties' survey of bus-rail overlapping flows. While we do have some methodological concerns (outlined in paragraph 11.47 (b) and (c) above) regarding the application of average diversion ratios to flow level bus and rail data, we take account of these by testing the sensitivity of the results with respect to the diversion ratios used.

11.50 Our sensitivity testing analyses diversion ratios higher and lower than the aggregated survey diversion ratios, as well as removing diversion in its entirety. The results of this sensitivity testing suggest that, even in the absence of any diversion away from bus following a fare increase, the substantive results of the profitability analysis remain unchanged.

11.51 We estimate the total revenue impact resulting from a fare rise by modelling the revenue gain from bus passengers continuing to travel by bus and from passengers diverting to rail. We also account for the revenue loss from passengers diverting away from bus. We set out the profit incentive analysis in the discussion of the overlapping bus and rail flows on which we provisionally found an SLC in paragraphs 11.108 to 11.219 below.

Other factors

11.52 In our assessment of the overlapping bus and rail flows we consider whether any other factors are relevant to the assessment. For example, we consider:

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275 [✂]

(a) local geographic factors or market conditions that might affect competition between bus and rail services on individual flows; and

(b) evidence of substitution between bus, rail and private transport at an aggregate level (ie across all flows surveyed) from the Parties' survey (see paragraphs 11.54 to 11.63).

11.53 Before turning to the detailed competitive assessment of the 89 flows, we set out our assessment of three further areas of evidence submitted by the Parties:

(a) The Parties' survey of overlapping bus and rail flows.

(b) Barriers to entry and expansion.

(c) Separation between Arriva UK Trains and Arriva UK Bus.

The Parties' survey of overlapping bus and rail flows

11.54 The Parties commissioned a survey of bus passengers on 18 of the 65 flows remaining after application by the Parties of a set of filters on overlapping flows. A detailed description of the survey design, assessment of the survey quality and the results of this survey is set out in Appendix F.

11.55 We monitored the survey fieldwork and identified a number of concerns:

(a) A lack of care in ensuring that respondents' bus journeys corresponded to an overlapping flow.

(b) Variations in the extent to which individual interviewers chose to conduct full interviews at the bus stop or collect passenger contact details for follow-up internet or telephone interviews.

(c) Variation in the extent to which interviewers read questions out as written in the survey script.

(d) The survey questionnaire included diversion questions to cover diversion behaviours in the three hypothetical scenarios of (i) a 10% increase in bus fares, (ii) a reduction in the frequency of the bus service, and (iii) the bus service not being available at all (so-called 'forced diversion'). We observed that the wording of the second scenario, namely the 'reduction in frequency' question was long. In addition, during the interviews that we monitored, most interviewers paraphrased it in different ways.

(e) Any biases arising from the impact of the aforementioned variations in the way that interviewers conducted the survey will have been

accentuated, at the flow level, by the small number of interviewers working on each surveyed flow.

(f) The number of passenger respondents was less than 100 on all but seven of the surveyed flows which gives rise to a lack of precision of estimates based on such small samples.

(g) The Parties did not provide survey response rates and neither we nor the Parties conducted any analysis of potential non-response bias.

(h) As in all merger surveys, the diversion questions are hypothetical and are therefore subject to the usual caveat, that is, responses may not reflect the actual behaviour that the respondent would take if the circumstances of the question were to be realised.

11.56 We therefore take a cautious approach in using and interpreting results for individual surveyed flows. This is as a result of the aforementioned concerns regarding the survey results and its methodology, differences in the way in which individual interviewers conducted the survey, interviewer variability, the absence of a systematic assessment of interviewer quality on every flow and low sample sizes.

11.57 Accordingly, we only use the survey results for individual flows by plotting estimated diversion ratios for individual surveyed flows against other, non-survey derived competition metrics such as relative GJC. This was done to test whether any of the competition metrics were good predictors of diversion ratios, at a flow level, as estimated from the surveys. It was clear from a visual inspection of the scatter plots that no strong relationships existed with any of the competition metrics tested.[276]

11.58 The survey results, when aggregated across all the routes that were surveyed, may be used to give an indicative measure of the closeness of competition between bus and rail services.

11.59 However, diversion estimates, even when used at this aggregate level, are uncertain. Moreover, given that some interviewed passengers' journeys may not have travelled on overlapping flows, and would, therefore, have less

[276] The following competition metrics were tested in this way: relative fares (ie Arriva bus over Northern Franchise), relative service frequencies, relative journey times, relative generalised journey costs, relative passenger numbers, relative passenger numbers without outliers, relative revenues, relative revenues without outliers, number of bus competitors, Northern Franchise fares, Northern Franchise service frequencies, Northern Franchise journey times, Northern Franchise GJC, Northern Franchise passenger numbers, and Northern Franchise flow revenues.

viable rail alternatives, the full extent of diversion from bus to rail may not have been captured.[277]

11.60 We find that the survey results show higher diversion to rail than to car. When aggregating results across 16 surveyed flows,[278] 17% of survey respondents said that they would not have taken the bus journey in response to a 10% price rise.[279] Of those 17%, 46% of respondents would have travelled by rail instead while 7% would have diverted to the private car, van or motorbike.

11.61 The equivalent estimates from the forced diversion question are 33% diverting to rail and 16% to car, van and motorbike. Two-thirds of respondents said they did not have access to private transport, either as driver or passenger, making most of them dependent upon public transport for the journey.

11.62 These results appear to contradict other evidence from the Parties and third parties, suggesting that the private car exerts a much stronger competitive constraint on buses than rail travel. However, our understanding is that this evidence refers to the generality of bus routes and flows across the country, whereas the survey results refer specifically to a selection of flows in which rail travel is a viable alternative to the bus. The survey results suggest that rail travel is the stronger constraint on these types of routes.

11.63 We estimated diversion ratios to Northern Franchise rail services. Aggregating as before across 16 surveyed flows and using the price diversion questions, we estimate diversion ratios of 36% to Northern Franchise rail services when including diversion to other Arriva-owned bus and rail alternatives in the denominator of the calculation and 37% when it is excluded. The equivalent ratios for the forced diversion question are 27% and 29%, respectively.

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[277] We have particular concerns in this regard about interviews on the Liverpool to Halewood flow and have removed these from our analysis. We have also decided not to look at results for the frequency diversion questions. We were only able to monitor a small fraction of interviews and did not visit every surveyed flow.
[278] The 18 surveyed flows minus the two services from Liverpool to Halewood.
[279] Only paying passengers were asked the question.

Entry and expansion in bus services

The views of the Parties

11.64 The Parties told us that the bus industry was characterised by extremely low barriers to entry and expansion, with the only requirements for entry being:[280]

(a) access to vehicles;

(b) access to an appropriate depot or other form of operating base; and

(c) obtaining relevant licences.

11.65 The Parties said that the regulatory barriers to operate a bus service were minimal, that there were limited economies of scale and scope and that incumbency advantages were very low.[281]

11.66 In relation to access to bus depots, the Parties told us that depot access was not necessary to enter new areas as more basic parking facilities, such as outstations, could be used, with maintenance being carried out at more distant depots or subcontracted.[282] In this regard, Arriva said that it was in the course of putting in a bid for a contract in [✂] even though it does not have a depot in the area as it considers that finding a depot or suitable place from which to operate would not be a significant obstacle.

11.67 The Parties also provided evidence regarding the distance of existing bus operators' depots from the overlapping bus and rail flows which we prioritised for assessment following the application of filters. The Parties said that there was at least one competitor depot within 30 minutes' drive time of each flow and that the vast majority were within 15 minutes.

11.68 In relation to access to bus stations, the Parties told us that there were [✂] bus stations within the area of the Northern Franchise which were owned by Arriva and, in most cases, bus stations used by Arriva in this area were owned and run by the PTE.[283] The Parties said that charges for access to bus stations were generally set at a fair, reasonable and non-discriminatory level.

[280] Arriva initial submission, paragraph 12.2.
[281] Arriva initial submission, paragraphs 12.5–12.10.
[282] The Parties noted that this point was made by several bus operators' submissions to the CC market investigation.
[283] [✂]

11.69 In relation to the cost of entry or expansion, the Parties told us that the sunk costs of entry or expansion were low and that the costs would depend on the scale involved. The Parties said that small scale entry (eg one to six buses) could take place within three months and with minimal upfront costs. Entry on a mid-scale (eg 10 to 40 buses) by an existing operator, including locating a depot, could take around three to six months and cost in the range of £100,000 to £200,000.[284]

11.70 The Parties also said that the presence of third party operators competing on bus routes operated by Arriva within the geographic areas overlapping with the Northern Franchise showed that the threat of retaliation or aggressive responses from an incumbent operator were not sufficiently material to deter entrants.[285] The Parties told us that achieving sustainable returns on services was a consideration for a potential entrant and [✂].[286] However, the Parties said that this had not stopped Arriva from entering or expanding its bus operations in competition with other bus providers where it considered its proposal to be viable or from competing strongly head to head with other operators.[287]

11.71 The Parties further stated that entry barriers were sufficiently low such that the threat of potential entry or expansion acted as a constraint on commercial behaviour, even absent the entry actually occurring.[288] In this regard, the Parties said [✂]. Arriva provided examples of a number of instances in its internal documents which show it was mindful of the threat of potential competition.[289]

The views of third parties

11.72 Third parties had mixed views as to the extent of barriers to entry and expansion. Other large bus operators told us that barriers to entry and expansion were low, particularly for established players (where depots were available).[290,291]

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[284] [✂]
[285] Arriva initial submission, paragraph 12.11.
[286] [✂]
[287] The Parties provided a number of examples of instances where Arriva had expanded its services in competition with incumbent operators, including in circumstances where it considered the possibility of retaliation, The Parties also indicated a number of third party operators had entered, expanded or enhanced their competitiveness on routes where Arriva already operated. [✂]
[288] Arriva initial submission, paragraph 12.1.1.
[289] [✂]
[290] [✂]
[291] [✂]

11.73 However, one smaller operator told us that it would have to be 'aware of the potential for retaliatory competition' in deciding whether to enter.[292] This concern was reflected by a number of LTAs which told us that there had been little threat of entry by other bus operators,[293] and that incumbents would be likely to be very aggressive in any response to ensure a new entrant could not effectively compete.[294]

11.74 We consider the views of third parties in undertaking the flow-by-flow assessment of bus and rail overlaps. We also spoke to potential entrants to certain individual flows (see, for example, paragraphs 11.135 and 11.136).

CMA assessment

11.75 We consider evidence from the Parties and third parties. We also consider the extent to which the likelihood of entry and expansion has changed since the CC's market investigation into local bus services in 2011, with a particular focus on the competitive conditions in the Northern Franchise area.

11.76 In considering barriers to entry and expansion, we note that it is important to distinguish between the barriers that would be faced by a *de novo* entrant and the barriers to the expansion of existing operators into new areas. For example, if a bus operator is already licensed in an area and has access to a local depot and vehicles, barriers to expansion may be lower even if barriers to *de novo* entry are higher. Moreover, where operators already run a number of routes they may benefit from the density of their local operations and may also have greater access to finance in order to deter (or survive) an aggressive local reaction by incumbent operators if they enter new routes.

Evidence from the local bus services market investigation

11.77 In December 2011, the CC's review of local bus services found in relation to barriers to entry and expansion that:

(a) there are some sunk costs associated with introducing a new service due to the relatively long period required to achieve profitability (which may take 12 to 18 months), as well as the costs of establishing a base for operations and setting up a fleet;[295]

[292] [✂]
[293] [✂]
[294] [✂]
[295] CC local bus services market investigation, paragraphs 9.16, 9.25–9.32.

(b) examples of aggressive local reactions by incumbent operators, particularly where the incumbent had better access to finance to enable it to withstand these conditions for a protracted period;[296]

(c) examples of strategic retaliation as a response, where an incumbent reacts by targeting the entrant, but on its existing routes; and[297]

(d) network scale, frequency of services, and 'lock-in' (ie selling multiple tickets in advance) can act as barriers to entry protecting incumbents with regard to network tickets.[298]

11.78 The CC identified other potential entry barriers including access to bus stations and depots.[299]

11.79 The CC also found that regulation and local knowledge were not significant barriers to entry. It did not conclude on the importance of achieving economies of scale although it was noted that operators of small depots may be disadvantaged to some extent.[300]

Evidence of barriers to entry and expansion in the Northern Franchise area

11.80 We consider the extent to which the potential barriers to entry identified by the CC in 2011 are relevant to the assessment of the competitive effects of the Merger in the geographic region of the Northern Franchise in 2016.

11.81 The Parties told us that there had been significant changes within Arriva since the CC report, including new management being put in place. The Parties also said that the remedies that resulted from the market investigation had led Arriva to formalise its approach to access to depots. The Parties also noted the growth of the role and influence of PTEs, the increase of tailored partnership agreements and how these conditioned the conduct of bus operators.[301]

11.82 The Parties told us that a key factor in determining entry or expansion was whether there was unmet passenger demand that the new or existing operator could tap into. The Parties provided evidence of entry and

[296] CC local bus services market investigation, paragraphs 9.41–9.57.
[297] CC local bus services market investigation, paragraphs 9.58–9.65.
[298] CC local bus services market investigation, paragraph 9.104.
[299] However, the report noted that there are some examples of times where these barriers were not realised in practice, stating that 'what is relevant as a barrier is that a potential entrant will not be able to predict in advance whether or not these costs will arise and their extent. Moreover, if it takes a long time for a route to build custom and achieve profitability, and if entry leads to intense competition, the size of these costs might be high. Therefore the risk of incurring these costs is likely to be perceived as significant, and it is these uncertain but potentially significant costs that act as the barrier'. CC local bus services market investigation, paragraph 9.208.
[300] CC local bus services market investigation, paragraphs 9.174–9.202.
[301] [✂]

expansion on a number of overlapping routes since 2012 for certain Arriva divisional areas:[302]

(a) North East: two examples of small operators introducing services on six routes, and a number of examples of entry and expansion on particular routes by Go North East and Stagecoach;

(b) Yorkshire Tiger: only a single example of entry by TLC in relation to a tendered service;

(c) Yorkshire: 15 examples of entry or expansion including by FirstGroup, Stagecoach, Arriva and small operators such as M-Travel, SGI, Utopia and Globe Holidays, with seven being through tendered services; and

(d) North West: 12 examples of entry or expansion with four being by Stagecoach and one by Arriva and with examples of smaller operators such as Routemaster, Avon Buses, Link Network and Rotala Diamond Bus.

11.83 These examples indicate that whilst entry and expansion are feasible, when set against the number of bus routes operated by Arriva in the relevant regions, entry appears to have been limited. Moreover, the Parties told us that they were not currently aware of any expected sizeable (ie across multiple flow) market entries or exits in the bus sector in the Northern Franchise area within the next three years.[303]

11.84 In response to our provisional findings, the Parties told us that where an existing operator/operators were meeting demand fully and providing services that met customers' expectations, potential new entrants might see little scope for profitable entry and that it was unrepresentative to conclude that entry had been limited based on the absolute number of examples provided by Arriva.[304] However, we note that we would still expect to see examples of entry where there is unmet demand and/or where a bus operator increases fares or reduces its service frequency or quality.

11.85 We note that a number of the barriers to entry and expansion identified by the CC may persist and note the following factors in particular:

(a) High levels of local concentration: For example, two-thirds of local authority areas in England (excluding London) have a single operator with a greater than 50% share of bus trips and 10% of areas have a

[302] [✂]
[303] Arriva initial submission, paragraph 12.13.
[304] Arriva response to provisional findings, p30.

single operator with a greater than 90% share.[305] This level of local concentration may allow incumbents to benefit from economies of scale and to credibly threaten to retaliate against operators seeking to enter their 'core territories'.

(b) Arriva's EBIT margins: Arriva's EBIT margins for its bus operations in the regions overlapping with the Northern Franchise (as stated in its management accounts) are [✄], and [✄] from [✄]% in 2011 to [✄]% in 2015.[306]

(c) Availability of depots: The Parties told us that access to depots was straightforward and that access to depots was not necessary to enter new areas (see paragraph 11.66). Arriva provided a number of examples of operators gaining access to depots.[307] Arriva also told us that it withdrew 34 Yorkshire Tiger services, prompted by a notice from the landlord of its Kirkstall Road depot to vacate the premises within six months. Arriva said that it was unable to find suitable alternative premises within this timescale,[308] although it subsequently stated that it was able to use a smaller site based out of Bradford to continue providing some of the services and that there were very particular circumstances in this case, including the fact that the depot was let on a short-term basis.[309]

11.86 Arriva's internal documents provided only limited evidence that it has implemented aggressive and/or strategic responses to competitive entry or expansion. For example, when a new entrant ([✄]) was targeting tender work with low cost bids, an Arriva internal document noted that Arriva intended to '[✄]'.[310]

Operator scale

11.87 We consider whether entry or expansion would be more likely to come from smaller or larger operators. In this regard, the Parties told us that different competitors had different characteristics. For example, the Parties said that

[305] DfT, table bus1001b.
[306] Based on management accounts for Arriva North East, North West, and Yorkshire. Arriva also provided a reconciliation between management accounts and statutory accounts for 2011 to 2014, which shows a [✄] EBIT margin, but also shows [✄] in 2011 to [✄]% in 2014. The Parties noted that the margins were [✄] the published margins of the Go-Ahead regional bus business in 2011 and the Stagecoach regional bus business in 2015.
[307] For example, the Parties told us that Arriva had reached an agreement with Garnetts to park a number of its buses at its depot near Bishop Auckland and in Alnwick, Arriva negotiated an agreement with a local coach operator to share its depot. The Parties also told us that Yorkshire Tiger had moved to a new depot in Bradford within 12 weeks and that bidders for the [✄] tender would be offered a building to use as a depot by York City Council. [✄]
[308] [✄]
[309] [✄]
[310] [✄]

smaller operators tended to have lower operational costs and legacy issues (such as pension commitments), whilst larger operators had greater access to investment and higher quality vehicles.[311]

11.88 Some evidence suggests that larger operators (such as FirstGroup, Stagecoach, and Go-Ahead) may be more likely to sustain successful entry than smaller operators. Data provided by the Parties regarding entry, expansion and exit on Arriva's overlapping routes with the Northern Franchise indicate that a number of smaller operators have entered the area but then exited within a few years, although a small number of new operators have sustained their services.[312]

11.89 A number of bus merger investigations undertaken by the CMA and its predecessor bodies found similar evidence.[313,314,315]

11.90 In response to our provisional findings, the Parties told us that previous exits had no bearing on the likelihood of entry or degree of competitive constraint that new operators would impose.[316] We consider the exit of new operators as indicative of commercial difficulties in operating a new bus service and we note that unsuccessful entry on a route, particularly by a large operator, may discourage other operators from entering the route.

Tendered and commercial services

11.91 We also consider whether LTAs could use tendered services as a method to encourage other companies to enter or expand into their local geography. For example, one LTA told us that 'there is little scope for widespread

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311 [✂]
312 Examples of operators exiting the sector include Star Travel, SGI, Tates Travel and Phoenix Taxis [✂] M Travel, Ladies Only Travel, Spirit Buses and TLC are examples of smaller new operators in the Yorkshire or Northumberland areas which continue to operate [✂]
313 McGill's Bus Services/Arriva Scotland West (2012, Phase 2); CC McGill's Bus Services Limited/Arriva Scotland West Limited merger inquiry, paragraph 15, '[…] in our view, issues of route profitability and possible incumbents' reaction to entry would provide disincentives for smaller operators in particular to enter on new flows. We thought it unlikely that small-scale entry would act as a sufficient constraint.'
314 Diamond Bus Company/FirstGroup (2013, Phase 1); OFT Completed acquisition by the Diamond Bus Company Limited of the bus business of FirstGroup plc in Redditch and Kidderminster, paragraph 106, 'However, taking account of all of the evidence available to it, the OFT does not consider that actual entry would be timely, likely or sufficient in scope to prevent a substantial lessening of competition from arising as a result of the merger. The OFT also recognises that in this case the prevalence of dynamic supply-side responses and bus operators may create a perceived constraint through the threat of entry or expansion, but does not consider that the evidence points to this perceived potential competitive threat being sufficient to allay its concerns in this case.'
315 Arriva/Centrebus (2014, Phase 1); CMA Completed acquisition by Arriva Passenger Services Limited of the remainder of the entire share capital of Centrebus Holdings Limited, paragraph 105, 'However, the CMA found that barriers to entry may be significant, particularly for new entrants. One third party submitted that obtaining planning permission to build a new depot is difficult. Further, the CC found that the expectation of reprisals from the incumbent operator may reduce the incentives to enter into new areas and as such create a barrier to entry. The CMA notes that Arriva internal documents suggest that aggressive scheduling may take place in response to new entry.'
316 Arriva response to provisional findings, p30.

competition and this influences new entrants to the bus market. The council is however able to encourage new entrants using tendered contracts as a starting point.'[317] However, it is not clear how widespread this practice is, nor how easily an LTA is able to identify specific flows on which any measures to increase entry or expansion should be targeted.

11.92 The Parties told us that tender opportunities, although declining in numbers overall, remained exceptionally competitive and continued to assist operators in entering a new route or area.[318] The Parties said that PTEs exercised close oversight of local bus operators and were kept informed of changes to services and routes, allowing PTEs to gain an insight into routes with little competition or where service levels were reducing or fares rising.

11.93 We note that any future changes in policy or regulation that increase the number of tendered services available may act to reduce barriers to entry. However, it is not clear that this would be sufficient to negate all the barriers highlighted above (eg this would not prevent strategic retaliation from incumbent operators), and the necessary time between tender processes implies that the entry or expansion is unlikely to be timely on specific flows where there is no tender forthcoming.[319]

Multi-operator tickets

11.94 The Parties told us that multi-operator tickets made it easier for small scale operators to enter or expand to compete sustainably with larger incumbents.[320] The Parties said that the relevant schemes were open to entry from smaller operators and often encouraged smaller operators to join.[321] The Parties also added that the investment required to join such schemes was now reduced as many buses had smart card readers, most operators had the necessary ticketing systems in place as they were often required for tenders and the managing organisation was often willing to allow smaller operators to use its back office data platforms.

11.95 The potential for multi-operator tickets to facilitate entry may, however, be limited by a number of additional factors, including:

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317 [✂]
318 The Parties told us that [✂]. The Parties also said that CT Plus had commenced local bus operations by winning the Dewsbury Free Town Bus contract. [✂]
319 For example, Northumberland County Council's recent tender for services between Morpeth and Thornton (part of Arriva NE's X14 service) was for five years.
320 Arriva initial submission, paragraph 12.9.
321 The Parties provided a copy of minutes relating to the [✂] scheme in [✂] which included a decision to contact smaller operators to ask them to participate [✂].

(a) a multi-operator ticketing scheme may lower some of the barriers to entry and expansion (eg the time before a service becomes profitable), but would not affect others (eg strategic retaliation);

(b) any effect can only be seen in locations where a multi-operator scheme is active; and

(c) the multi-operator scheme is likely to involve a degree of investment (eg in compatible ticketing systems) for certain operators, particularly *de novo* entrants.

11.96 We therefore conclude that multi-operator tickets are unlikely to sufficiently mitigate other barriers to entry or expansion.

Flow-level assessment of barriers to entry and expansion

11.97 We examine the competitive effects of the Merger at the route and flow level as competitive conditions may vary by route and flow. We note that the level of barriers to entry and expansion may also differ between flows and routes depending on the presence and scale of potential competitors and the local commercial conditions. We therefore examine barriers to entry and expansion at the route and flow level.

11.98 In this regard, the Parties assessed the constraint from potential competitors on the bus-rail overlaps which were prioritised for further assessment following the application of filters.[322] The analysis assessed how many of the flows had a competitor depot within 30 minutes' drive-time of either the start or end of the flow. As a sensitivity check, the analysis was also undertaken based on whether competitor bus depots are located within 20 and 15 minutes' drive-time of the rail stations at either end of the flow.

11.99 We consider this analysis as part of our competitive assessment. Where potential competition concerns are identified on flows we place particular weight on examining whether entry or expansion would be timely, likely and sufficient to remedy any SLC.

11.100 In examining whether entry or expansion would constrain the Parties on specific flows, we note that an entrant would need to be able to profitably

[322] [✂]

operate not only on a particular flow, but on a sufficient proportion of the longer routes of which they are part.[323]

Conclusion on entry and expansion

11.101 Although structural barriers to entry or expansion are relatively low, uncertainty regarding both the profitability of a route and the response of incumbents may act as barriers to entry. This is reflected in the limited number of examples of entry or expansion on any significant scale in the area of the Northern Franchise, as well as concentration levels and profitability in the bus sector.

11.102 We conclude that whilst *de novo* entry by new operators is unlikely to be timely, likely and sufficient to constrain the Parties' commercial behaviour, expansion by existing operators may act as a competitive constraint in certain areas, particularly where existing operators have a sizeable presence in the local area.

11.103 We note that the likelihood of entry or expansion by existing operators into new areas may vary according to the presence and scale of nearby bus operators and local competitive conditions. We therefore consider the level of barriers to entry and expansion on a flow-by-flow basis.

Separation between Arriva UK Bus and Arriva UK Trains

The views of the Parties

11.104 The Parties told us that they saw no potential advantage to coordinating strategy between the bus and rail divisions and noted that Arriva's existing structure is evidence of this.[324] The Parties also told us that [✂] which preclude any realistic ability or incentive for coordination across Arriva's bus and rail network tickets.

CMA assessment

11.105 We consider the extent to which Arriva's current organisational structure may restrict the commercial incentives of Arriva UK Bus to respond to the Merger (ie whether the incentives of Arriva UK Bus division will change as a

[323] For example, there is likely to be a minimum efficient scale in order to ensure that bus and driver utilisation is sufficiently high, and so there is likely to be a need for an entrant to provide multiple routes within a geographic area.
[324] Arriva initial submission, paragraph 1.14.1.

result of the Northern Franchise rail services being operated by ARN, which is also part of Arriva).

11.106 Arriva is currently divided into three divisions – Arriva UK Trains, Arriva UK Bus and Mainland Europe.[325] Arriva UK Trains operates a number of TOCs and Arriva UK Bus is split into regional management areas, including Arriva North West and Wales and Arriva Yorkshire and North East.[326]

11.107 We note, however, that Arriva is a commercial organisation and therefore has incentives to ensure that it profit maximises post-Merger, which may include facilitating a degree of coordination between its bus and rail services in certain geographic areas, where the incentive is sufficient to justify the change.

Assessment of overlapping bus and rail flows

11.108 We focus our assessment of the competitive effects of the Merger on the 89 flows failing the filters set out in Section 9. If the individual flows raise competition concerns, we examine the route in its entirety, including the overlapping flows which pass the filters and prioritisation.

11.109 We also examine additional overlapping flows on the relevant bus routes surveyed by the Parties even where these were filtered out by the CMA on the basis that the Parties surveyed flows which failed their own initial filters. We therefore examine the overlapping flows on the following additional bus routes:

(a) route 110;

(b) routes X14, X15 and X18; and

(c) route 415.

11.110 Table 19 sets out the overlapping flows on the relevant bus routes following the application of filters by Arriva depot.

[325] See paragraph 3.4.
[326] See paragraph 3.9.

Table 19: Overlapping bus and rail flows on the relevant routes

Depot	*Routes*	*Number of flows*
Redcar	X3/X3A, 3, X4, 63, 64, 81/81A	20
Castleford	188, 189	12
Wakefield	110, 145, 147/157, 148, 149, 496	9
Darlington	5, 12, X66	6
Green Lane	6, 7, 15, 536	6
Dewsbury	202, 203	5
Elland	X58	5
Speke	76, 79, 80/80A	5
Leeds	737, 747	4
St Helens	352, 33	4
Stockton	28/28B, 29/29A	4
Waterloo	83/84	3
Durham	X12	2
Bolton	541	1
Honley	315	1
Jesmond	685	1
Wythenshawe	130	1
Elland	X58	3

Source: The Parties.

11.111 We summarise the framework that we describe above to assess the competitive effects of the Merger on the overlapping bus and rail flows:

(a) Closeness of competition: We assess whether bus and rail services are likely to be close substitutes for passengers. We compare the GJC for bus and rail journeys as an indicator of whether passengers are likely to see bus and rail services as close substitutes. In addition, we use the individual components of the GJC to understand what drives the closeness of substitution, including:

(i) differences in fares (if bus and rail fares are similar we consider bus and rail more likely to be close substitutes);

(ii) differences in journey time (if bus and rail journey times are similar we consider bus and rail more likely to be close substitutes); and

(iii) differences in service frequency (if bus and rail service frequencies are similar we consider bus and rail more likely to be close substitutes). In our assessment, we consider whether a high frequency on one mode may compensate for a higher journey time on this mode.[327]

(b) Ability to increase fares: We assess whether Arriva is likely to have the ability to increase fares post-Merger. We consider, where there is

[327] For example, if the bus journey takes longer, but has a very high frequency it is likely to be a substitute to a relatively faster rail journey.

relevant evidence, the scope for multi-operator ticketing schemes to restrict the Parties' ability to increase fares.

(c) Incentive to increase fares: We assess whether Arriva is likely to have the incentive to increase fares post-Merger, having regard to evidence including the following:

(i) Share of route revenue: We examine the share of route revenue which is accounted for by the overlapping flows remaining after filtering. If the flow revenue share is small, Arriva may not have a strong incentive to increase fares post-Merger.[328]

(ii) 'Spillover effects' on the route: If a flow has revenue close to the *de minimis* threshold of £10,000 we consider whether there may be any 'spillover effects' as a result of the Merger on the overall route (ie whether the change in competitive conditions on the flow as a result of the Merger affects competitive conditions on the wider route).

(iii) Alternative competition: We consider competition from other bus and rail operators and, where relevant, other modes of transport.

(iv) Other factors: We consider other evidence relevant to individual flows on the relevant routes such as whether some bus services are tendered, whether VPAs are in place and evidence from the Parties' internal documents.

(v) The profit incentive to increase fares: On the overlapping bus and rail flows on which we provisionally found an SLC, we consider the incentive of the Parties to increase fares by examining the profitability of such a fare increase.

(d) Barriers to entry: We assess whether entry and/or expansion is likely on an overlapping flow of the relevant routes. In particular we take into account the following factors:

(i) We consider whether a bus operator is providing services in close proximity to, or on part of, the overlapping flow of the relevant route under consideration. Where we identify such a bus operator, we assess whether it is likely to enter, or expand, on the overlapping flow of the relevant route in response to a fare increase or a

[328] As we note in paragraphs 11.27–11.29, it is likely to be less costly for the Parties to change fares on a flow relative to degrading the non-price aspects of its service offering (as the latter could affect the whole route). We therefore consider that the share of route revenue threshold for the Parties to have the incentive to degrade non-price aspects of the service offering on a flow is higher than the threshold needed for the Parties to have the incentive to increase fares on a flow.

degradation of service quality by Arriva, and therefore provide a competitive constraint on Arriva. We take into account the size of the bus operator in this assessment.

(ii) We consider whether a bus operator is running a route on part of the overlapping flow of the relevant route. We then assess whether it is likely that the transport operator expands its operation on the route or flow under consideration.

11.112 Table 20 below summarises by route and depot our conclusions in relation to the 89 overlapping bus and rail flows that failed the filters set out in Section 9:

Table 20: Assessment of overlapping bus and rail flows by route and depot

Depot	*Route*	*Origin*	*Destination*	*SLC or no SLC on flows*
Redcar	3	Redcar	Lingdale	No SLC
Redcar	X3/X3A	Middlesbrough	Lingdale	No SLC
Redcar	X4	Middlesbrough	North Skelton	No SLC
Redcar	63	Middlesbrough	Redcar	No SLC
Redcar	64	Middlesbrough	Ings Farm	No SLC
Redcar	81/81A	Marske	Stokesley	No SLC
Darlington	5	Darlington	Bishop Aukland	No SLC
Darlington	12	Hurworth	Middleton St George	No SLC
Darlington	X66	Darlington	Middlesbrough	No SLC
Ashington	X14/X15/X18	Newcastle	Thropton/Berwick upon Tweed	No SLC
Waterloo	83	Huddersfield	Denby Dale	No SLC
Waterloo	84	Huddersfield	Denby Dale	No SLC
Bolton	541	Toppings Estate	Bolton	No SLC
Castleford	167/168	Leeds	Castleford	No SLC
Castleford	188	Wakefield	Knottingley	No SLC
Castleford	189	Wakefield	Leeds	No SLC
Castleford	404	Micklefield	Cross Gates	No SLC
Dewsbury	202/203	Huddersfield	Leeds	No SLC
Dewsbury	262	Dewsbury	Huddersfield	No SLC
Durham	X12	Middlesbrough	Newcastle	No SLC
Elland	X58	Halifax	Rochdale	No SLC
Elland	536	Halifax	Huddersfield	No SLC
Green Lane	6	Warrington	Liverpool	No SLC
Green Lane	7	Warrington	Liverpool	No SLC
Green Lane	15	Huyton	Liverpool	No SLC
Honley	315	Honley	Huddersfield	No SLC
Jesmond	685	Newcastle	Hexam	No SLC
Leeds	737	Bradford	Leeds-Bradford Airport	No SLC
Leeds	747	Bradford	Harrogate	No SLC
Selby	415	Selby	York	No SLC
Speke	76	Halewood	Liverpool	No SLC
Speke	79	Halewood	Liverpool	No SLC
Speke	80A	Liverpool Airport	Liverpool	No SLC
St Helens	33	Sutton Manor	Sutton Heath	No SLC
St Helens	352	St Helens	Wigan	No SLC
Stockton	28/28B	Middlesbrough	Lingdale/Stockesley	No SLC
Stockton	29/29A	Middlesbrough	Nunthorpe	No SLC
Wakefield	103	Stanley	Wakefield	No SLC
Wakefield	110	Leeds	Hall Green	No SLC
Wakefield	145/148/149	Knottingley	Wakefield	No SLC
Wakefield	147/157	Wakefield	Pontefract	No SLC
Wakefield	186/187	Wakefield	Pontefract	No SLC
Wakefield	496	Wakefield	Doncaster	No SLC
Wythenshawe	130	Manchester	Macclesfield	No SLC

Source: The Parties and CMA assessment.

11.113 In our provisional findings report, we concluded that the Merger has resulted in or may be expected to result in an SLC on the following flows:

(a) two flows on route 3, seven flows on routes X3/X3A and eight flows on route X4 (all in the Redcar area);

(b) one flow on route 83 and one flow on route 84 (both in the Huddersfield area);

(c) one flow on route X14, one flow on route X15 and two flows on route X18 (all in the Ashington area); and

(d) one flow on route 12 (in the Darlington area).

11.114 In the following paragraphs we set out our assessment of these overlapping flows.

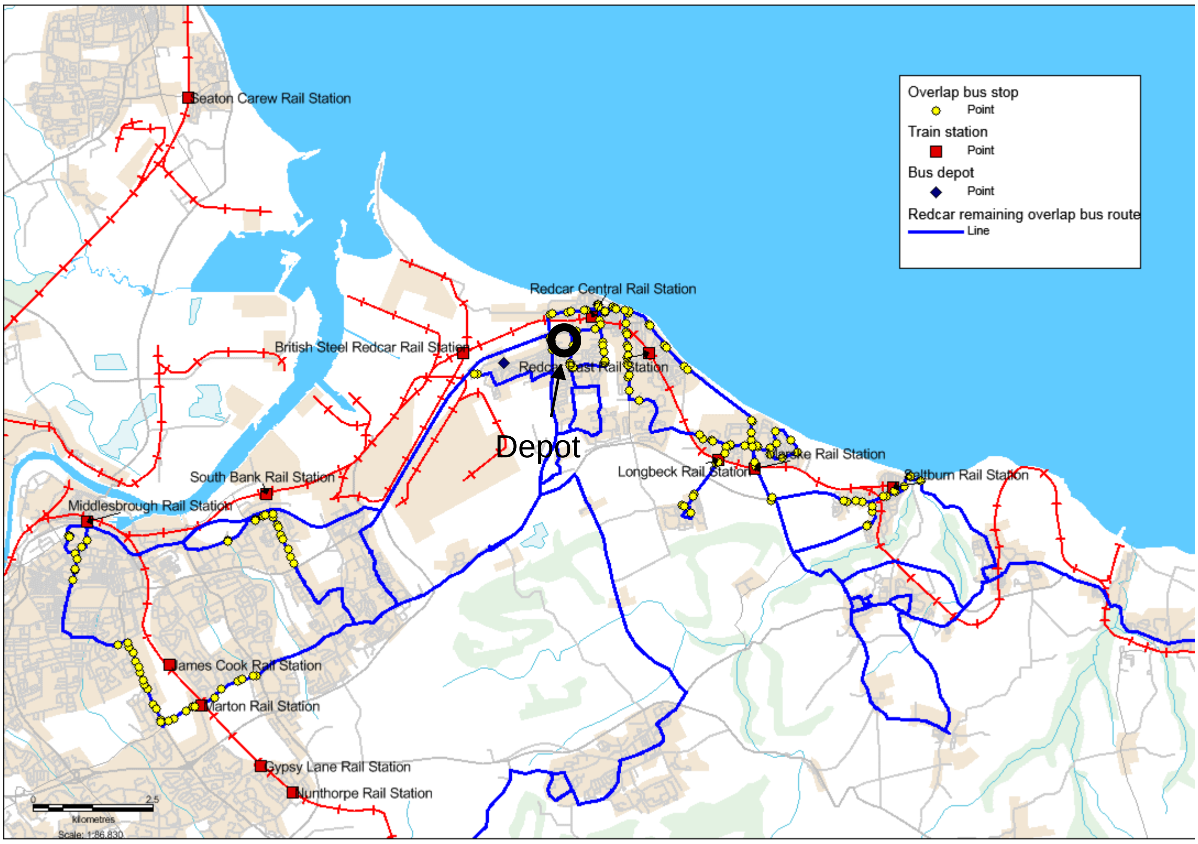
11.115 Following our provisional findings, we consider further evidence submitted by the Parties regarding their ability and incentive to increase bus fares in relation to each of these flows. In light of this additional evidence we undertake further analysis, including profit incentive analysis (see paragraphs 11.48 to 11.51). In the following paragraphs we explain why our provisional conclusions have changed as a result of this further analysis in relation to each of these flows.

11.116 We set out our detailed assessment of the other 65 overlapping flows which failed our filters and on which we provisionally concluded that the Merger has not resulted in or may not be expected to result in an SLC in Appendix G. We conclude that the Merger has not resulted in or may not be expected to result in an SLC on these flows.

Redcar

11.117 The map in Figure 9 shows the Parties' overlapping bus and rail flows in the Redcar area.

Figure 9: Map of Redcar area



Source: Basemap data/CMA calculations.

11.118 Arriva's Redcar bus depot serves ten bus routes that overlap with the Northern Franchise's rail services across Middlesbrough to Whitby (Table 21). After filtering, six of these routes remain for in-depth analysis.

Table 21: Number of overlapping flows on the routes

Route	*Number of flows post-filtering*	*Number of flows pre-filtering*
X4	8	16
X3/X3A	6	13
63	2	5
3	2	8
81/81A	1	4
64	1	13
64A	-	1
22	-	8
95	-	2
X93	-	1

Source: The Parties and CMA assessment.

11.119 Arriva is the sole provider of bus services between Middlesbrough to Whitby.[329] Northern Franchise rail services are the only competing public

[329] We have identified a local council service that provides very limited bus services. We do not consider those services as effectively competing with Arriva's bus services. We provide further detail in the detailed assessment below.

transport alternative on these flows. Stagecoach operates an extensive bus network within Middlesbrough, but none of their services run on Middlesbrough to Whitby.

11.120 In the following paragraphs we set out a more detailed assessment of the overlapping flows on the routes. Table 22 sets out the overlapping flows in the Redcar area. We examine the overlapping flows across routes 3, X3/X3A and X4 together as the majority of flows are served by all three routes.

Table 22: Routes X3/X3A/3 and X4 overlapping flow journey metrics with GJC

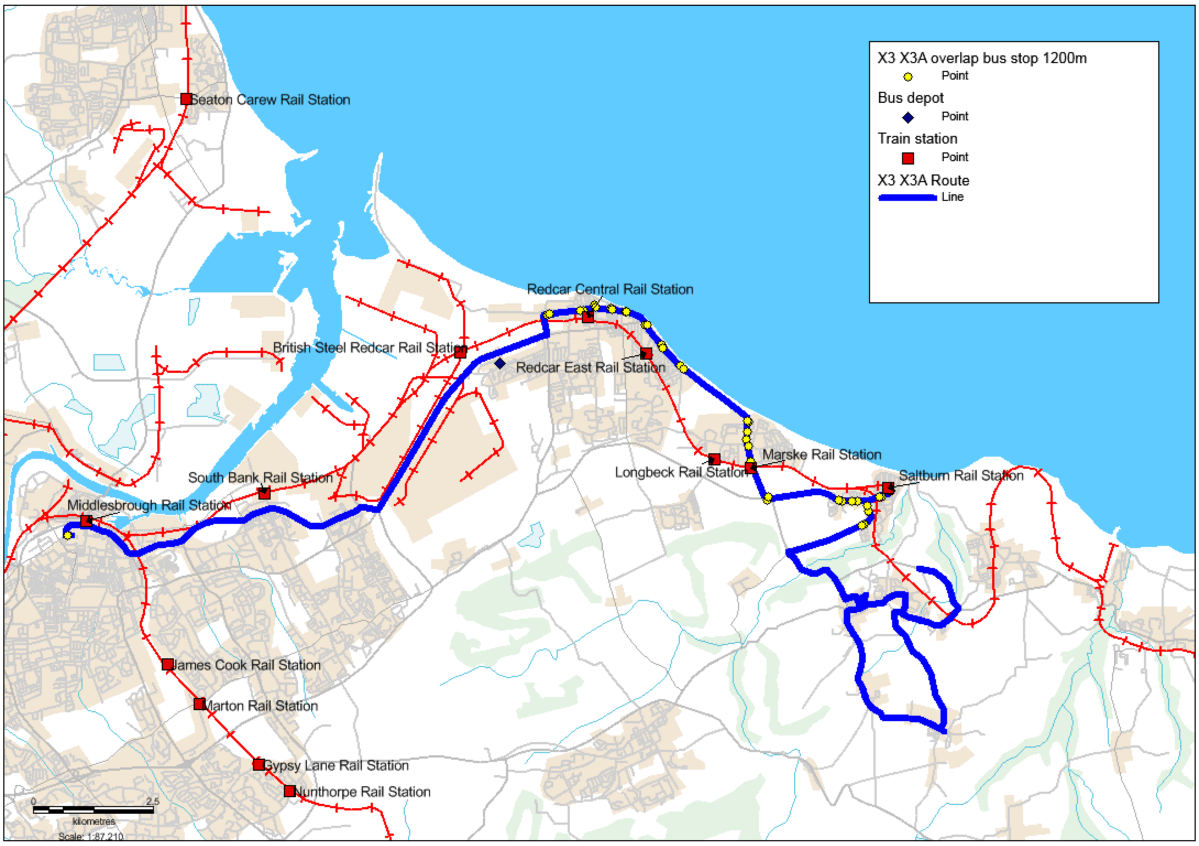
			Journey time		*Fare*		*Frequency (per hour)**		
Origin	*Destination*	*Route*	*Bus*	*Rail*	*Bus*	*Rail*	*Bus*	*Rail*	*GJC†*
Redcar East	Saltburn	3	21	14	2.5	2.8	0‡	1.5	-
Marske	Redcar Central	3	12	8	2.3	2.3	0	1.5	-
Middlesbrough	Saltburn	X4	47	28	3.8	4.6	4	1.5	[0-5]%
Middlesbrough	Whitby	X4	111	91	6.1	6.8	2	0.5	[10-20]%
Redcar East	Saltburn	X4	14	14	2.5	2.8	4	1.5	[30-40]%
Middlesbrough	Marske	X4	40	19	3.8	4.2	4	1.5	-[0-5]%
Marske	Redcar Central	X4	16	8	2.3	2.3	4	1.5	[10-20]%
Middlesbrough	Redcar East	X4	34	14	3.8	3.8	5	1.5	[0-5]%
Redcar Central	Saltburn	X4	23	16	2.5	2.8	4	1.5	[10-20]%
Middlesbrough	Redcar Central	X4	24	10	3.8	3.8	4	1.5	[0-5]%
Middlesbrough	Saltburn	X3/X3A	47	28	3.8	4.6	2	1.5	-[5-10]%
Redcar East	Saltburn	X3/X3A	14	14	2.5	2.8	2	1.5	[10-20]%
Marske	Redcar Central	X3/X3A	15	8	2.3	2.3	2	1.5	-[0-5]%
Redcar Central	Saltburn	X3/X3A	22	16	2.5	2.8	2	1.5	[0-5]%
Middlesbrough	Redcar East	X3/X3A	34	14	3.8	3.8	2	1.5	-[10-20]%
Middlesbrough	Redcar Central	X3/X3A	24	10	3.8	3.8	2	1.5	-[10-20]%

Source: The Parties and CMA assessment.
* Peak time frequency per hour.
† Negative GJC indicates a lower GJC on rail relative to bus.
‡ Zero as the 3 service operates a twice hourly off-peak service only.

11.121 Routes X3/X3A run from Middlesbrough to Skelton and operate from Monday to Saturday between the hours of 6:30 and 18:49. Route 3 runs from Redcar to Lingdale on Sundays only. This is a Sapphire service run by Arriva North East. The number of overlapping flows on routes X3/X3A/3 is 13 and eight on route 3. After filtering, six overlapping flows remain on route X3/X3A and two on route 3 (Table 22).

11.122 Figure 10 shows a map of the X3/X3A bus routes. From Middlesbrough, the first bus stop is in Redcar where the service then proceeds to make more frequent stops between Redcar, Marske and Saltburn. On the X3/X3A routes there are a considerable number of bus stops within the 1,200-metre catchment area.

Figure 10: Map of routes X3/X3A

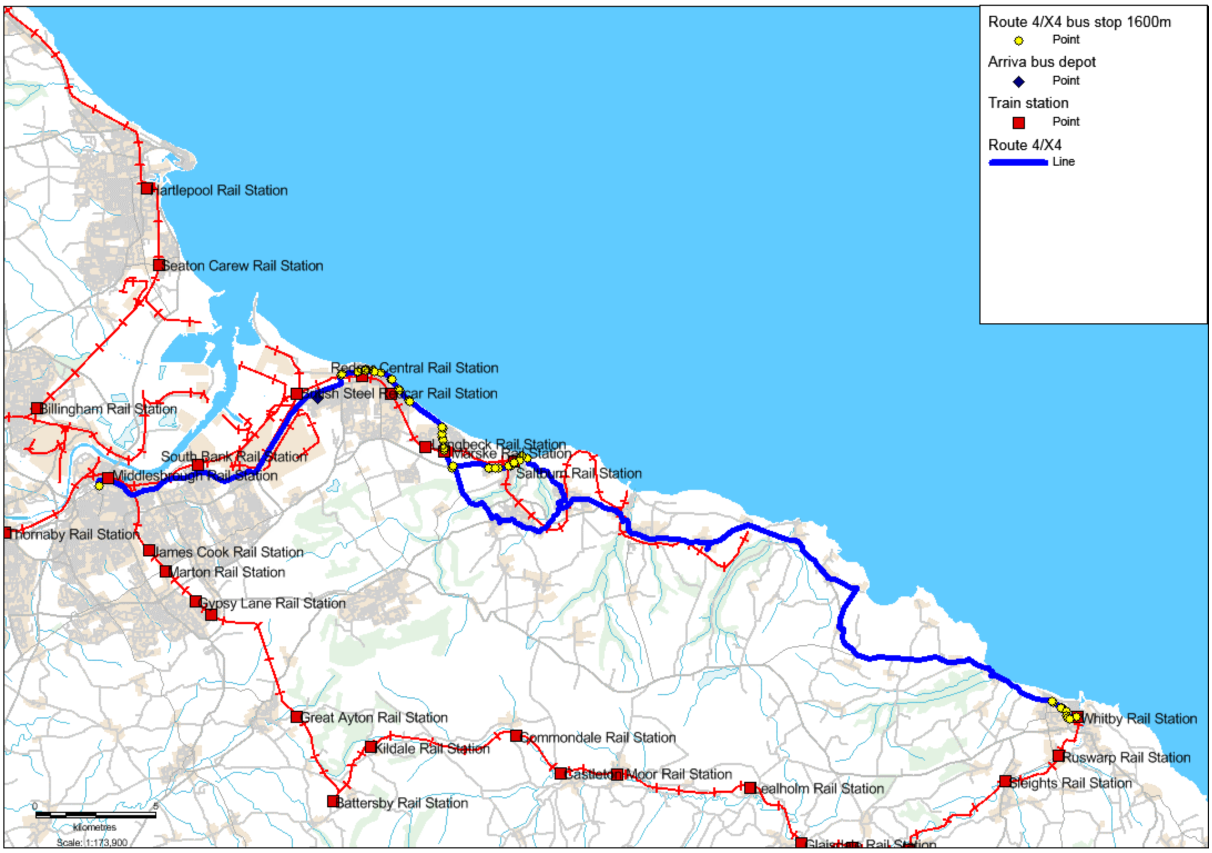


Source: Basemap data/CMA calculations.

11.123 Route X4 runs from Middlesbrough to Whitby (see Figure 11), operating Monday to Sunday between the hours of 6:07 and 20:27.[330] This is a Sapphire service run by Arriva North East. The X4 tracks the same route as the X3/X3A between Middlesbrough and Saltburn before continuing along the coast to Whitby. In contrast to the other flows on this route, journeys between Middlesbrough and Whitby require a train journey on a different line, which runs further inland. Journey time, fare, and frequency for overlap flows on routes 4/X4 and 3/X3/3 are given in Table 22.

[330] The Parties told us that the 4 service is no longer in operation. Data provided for this flow refers to the '4/X4' service.

Figure 11: Map of routes 4/X4



Source: Basemap data/CMA calculations.
Note: The overlapping catchment between bus and rail stations used for the CMA's competitive assessment is 1,200-metres.

11.124 On the overlapping bus and rail flows on routes X3/X3A/3 the differences in GJC between the bus and the Northern Franchise services are broadly low, with an average GJC of [5-10]% on the overlap flows (Table 22). For example, the GJC on the flow between Redcar Central and Saltburn is [0-5]%. All flows have a GJC below 25%, with the highest GJC difference being [10-20]% ([✂]). Although fares are broadly similar, the difference in GJC is driven by a faster rail service and marginally higher rail frequency (see Table 22). The Parties' GJC analysis on these routes suggests that the average difference in GJC on the overlapping flows is approximately [✂]%, with one flow above [✂]% and three flows above [✂]%.

11.125 On the overlapping flows on route X4 the differences in GJC between the bus and the Northern Franchise services is also broadly low, with an average GJC of [10-20]% on the overlapping flows (Table 22). For example, the GJC on the flow between Middlesbrough and Redcar Central is [0-5]%. The highest GJC difference is [10-20]% ([✂]).[331] Although fares are broadly similar, the difference in GJC is driven by a faster rail service and marginally

[331] Redcar East to Saltburn has a GJC of [30-40]% and has been de-prioritised from this analysis on this basis.

higher rail frequency (see Table 22). The Parties' GJC analysis suggests that the average difference is approximately [✂]%, with three flows above [✂]%.

11.126 The relatively small GJC difference on the overlapping flows on routes X3/X3A/3 and X4 suggests that the degree of differentiation between bus and rail is low. Therefore, we consider that passengers are likely to view bus and rail services as substitutes.

11.127 Arriva's internal documents suggest that [✂].[332] The evidence from internal documents suggests that Arriva's bus services:

(a) [✂]; and

(b) [✂].

11.128 The Parties told us that the private car was likely to be an attractive alternative on routes X3/X3A/3 and X4. However, as set out in paragraphs 6.16 to 6.26 above, we have not seen any evidence that competition from the private car would be sufficient to constrain Arriva from increasing its bus fares on the overlapping bus and rail flows.

11.129 Total revenue on the X3/X3A bus routes was £[✂] in the last financial year, with revenue generated on the overlap flows representing [20-30]% (about £[✂]) of the total route revenue for the X3/X3A bus service (Table 23).

11.130 For route 3, the total revenue was £[✂] in the last financial year, with the overlapping flows representing [5-10]% (just over £[✂]) of the total route revenue for this route.[333]

11.131 Total revenue for X4 was £[✂] in the last financial year, with overlapping flows representing [10-20]% (about £[✂]) of the total revenue on these routes (Table 23).

11.132 The Northern Franchise's revenue on the overlapping flows on the relevant routes amounted to £[✂] in the last financial year.[334]

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[332] [✂]. [✂]
[333] Although [✂] of overlap flow revenue is below our de minimis threshold, service 3 is included in the competitive assessment as it is the Sunday service of the X3/X3A.
[334] The Parties told us that Northern Franchise has little incentive to increase fares on these flows given that the revenues generated account for a small proportion of the total revenues on the relevant routes.

Table 23: Overlapping flow revenue of the Parties' bus and rail services, including journey numbers

Origin	*Destination*	*Route*	*Bus revenue*	*% of total route revenue*	*Northern Rail Revenue**	*Journeys (Bus)*	*Journeys (Rail)**
Middlesbrough	Marske	X3/X3A	[✂]	[0-5]	[✂]	[✂]	[✂]
Middlesbrough	Redcar Central	X3/X3A	[✂]	[5-10]	[✂]	[✂]	[✂]
Middlesbrough	Redcar East	X3/X3A	[✂]	[0-5]	[✂]	[✂]	[✂]
Middlesbrough	Saltburn	X3/X3A	[✂]	[0-5]	[✂]	[✂]	[✂]
Marske	Redcar Central	X3/X3A	[✂]	[5-10]	[✂]	[✂]	[✂]
Redcar Central	Saltburn	X3/X3A	[✂]	[5-10]	[✂]	[✂]	[✂]
Redcar East	Saltburn	X3/X3A	[✂]	[0-5]	[✂]	[✂]	[✂]
Redcar East	Saltburn	3	[✂]	[0-5]	[✂]	[✂]	[✂]
Marske	Redcar Central	3	[✂]	[0-5]	[✂]	[✂]	[✂]
Middlesbrough	Marske	X4	[✂]	[0-5]	[✂]	[✂]	[✂]
Middlesbrough	Redcar Central	X4	[✂]	[0-5]	[✂]	[✂]	[✂]
Middlesbrough	Redcar East	X4	[✂]	[0-5]	[✂]	[✂]	[✂]
Middlesbrough	Saltburn	X4	[✂]	[0-5]	[✂]	[✂]	[✂]
Middlesbrough	Whitby	X4	[✂]	[0-5]	[✂]	[✂]	[✂]
Marske	Redcar Central	X4	[✂]	[0-5]	[✂]	[✂]	[✂]
Redcar Central	Saltburn	X4	[✂]	[0-5]	[✂]	[✂]	[✂]
Redcar East	Saltburn	X4	[✂]	[0-5]	[✂]	[✂]	[✂]

Source: The Parties.
* Aggregating across routes will result in double counting.

11.133 The Northern Franchise rail service is the only service competing with Arriva North East at present. Redcar and Cleveland Borough Council is operating a bus service from Redcar to Lingdale. The service runs at evening off-peak hours after Arriva North East services have ended, with a maximum of four services. We have not seen any evidence to suggest Redcar and Cleveland Borough Council would expand its bus services in response to an increase in Arriva's bus fares.

11.134 The Parties told us that Stagecoach, Stagecarriage and Croft Coach each had a bus depot located within 10 minutes' drive time from Middlesbrough rail station. The Parties said that their incentive to raise fares or reduce the frequency of their services was limited by potential entry.

11.135 Stagecoach told us [✂].[335] However, Stagecoach also told us that [✂].

11.136 Stagecarriage, a smaller bus operator in Middlesbrough, told us [✂]. Stagecarriage said that [✂]. We note that Stagecarriage is [✂].

11.137 Stagecoach operates bus services in Middlesbrough. However, none of the services overlap with Arriva services on the X3/X3A/3 or X4 routes. Stagecoach's route network focuses on the south of Middlesbrough (for example to Coulby Newham or Stainton as well as to Stockton-on-Tees or Billingham). Although Stagecoach told us [✂], we note that a competitor

[335] The indicators they mentioned to assess Arriva's competitiveness on this flow are Arriva's high frequency and competitive fares.

would have to invest substantially in order to match Arriva's extensive network and to provide effective competition. We did not receive any evidence suggesting that entry on such as scale was likely or timely such as to prevent an SLC.[336]

11.138 The Parties also told us that Arriva North East had entered a VPA with all the councils in the Tees Valley, which had given Arriva North East certainty to invest in service quality on this flow.[337] Arriva stated that it gave advance notice to the Tees Valley VPA to allow the councils an opportunity to comment on the proposed fare changes before they were made public.[338] Therefore, Arriva stated that it had limited incentive to degrade services on these routes and flows as this would damage both its relationship with the partnership local councils, and the investments it had already made. However, we have not received evidence on how this would inhibit Arriva's ability to flex fares.

- *Provisional conclusion*

11.139 Our analysis of GJC and other factors suggest that rail and bus services compete closely on these flows. The number of problematic overlapping flows covers a large share of the total route revenue which suggests the incentive to increase fares. No other viable public transport opportunities are available on the routes and therefore passengers do not have alternative public transport choices on the flows. We do not consider entry or the threat of entry to be viable on these routes.

11.140 In our provisional findings, we therefore concluded that the Merger has resulted in or may be expected to result in an SLC on the overlapping flows on these routes as a result of the Parties having an incentive to increase fares on the overlapping flows as a result of the Merger.[339]

- *Further assessment of the Parties' ability and incentive to increase bus fares*

11.141 Following provisional findings and based on further evidence submitted by the Parties, we carry out further analysis of the Parties' ability and incentive to increase bus fares on the overlapping flows as a result of the Merger.

[336] *Merger Assessment Guidelines*, paragraph 5.8.
[337] The Parties told us that the Tees Valley VPA was designed to address the long-term decline in bus patronage, offer a step change in bus service provision and provide a real alternative to the private car. [✂]
[338] Arriva response to provisional findings, p34.
[339] In our provisional findings, we further concluded that the Merger has not resulted in or may not be expected to create an incentive for the Parties to degrade service quality and/or frequency on these flows.

11.142 In doing so, we first examine Arriva's ability to increase bus fares on the flows by calculating the differential between bus fares set by Arriva on individual flows (ie single and return tickets) and the level of multi-operator or zonal fares applicable on the flow. This indicates the maximum headroom that Arriva has to increase bus fares and is therefore an upper bound on the fare increases. We consider that Arriva would not be likely to increase fares by this amount in order to maintain a differential between its single and return fares on the flow and multi-operator and zonal fares.

11.143 We then estimate the additional profit that the Parties would gain in response to a fare increase. We assess the profit incentive to increase fares by the maximum headroom theoretically available on the basis that if there is not sufficient incentive for the Parties to increase fares by this maximum amount, there will not be a profit incentive to make more limited fare increases either.

11.144 In relation to the Parties' ability to increase fares, the Parties told us that fares on the overlapping flows are constrained by:

(a) multi-operator tickets in this region – the Teesside/Easyrider ticket – which cannot be changed without the agreement of the participating operators; and

(b) Arriva's network tickets such as the All Zones Saver and the Teesside and East Cleveland Zone Saver tickets.

11.145 We note that the income from the multi-operator tickets on those flows is [✄] ([0-5]%). In addition, we note that there is a large price difference in fares for the Teesside/Easyrider and tickets between Middlesbrough and Redcar/Saltburn/Marske. For example, the weekly Teesside/Easyrider ticket is £26, while the Arriva only ticket is £15.40.

11.146 We consider the extent to which multi-operator and zonal tickets restrict the Parties' ability to increase bus fares on overlapping flows in the Redcar area:

(a) For the majority of the overlapping flows on routes 3/X3/X3A/X4, the pricing for the Arriva North East All Zone Saver is higher compared to the flow-specific tickets. For example, the Zone Saver fare for a day ticket is £7.80 compared to Arriva's fare between Middlesbrough and Redcar/Saltburn/Marske of £5.00 for a day return ticket (although, in practice, passengers on these flows purchasing zonal tickets may buy the Teesside & Cleveland zonal ticket described below). However, on the X4 Middlesbrough to Whitby flow, the return fare is £7.10. This would allow scope for a 10% price rise before reaching the price of the Arriva North East All Zone Saver ticket.

(b) The Redcar Saver is priced at £4.00 for a day ticket, offering unlimited bus travel in the Redcar area. Travel on the Marske to Redcar Central flow on routes 3/X3/X3A/X4 falls within the zonal boundary set for the Redcar Saver ticket.[340] A return fare for the Marske to Redcar Central is priced at £3.90. Therefore, on this flow the Parties have scope to increase the price of a return fare by 3% before it reaches the price of the Redcar All Zone Saver ticket.

(c) The Teesside & East Cleveland zonal ticket is priced at £5.80 for a day ticket. Overlapping flows between Middlesbrough and Redcar/Saltburn/ Marske fall within the eligible boundaries of the Teesside & East Cleveland zonal ticket. On routes 3/X3/X3A/X4 the return fare on flows between Middlesbrough and Redcar/Saltburn/Marske is £5.00. Therefore, the Parties have scope to increase the price of the return fare by 16% before reaching the price of the Teesside & East Cleveland zonal ticket.

11.147 With the exception of the Redcar Saver ticket, we therefore conclude that the multi-operator and zonal tickets do not constrain the Parties' ability to increase bus fares on the overlapping flows.

11.148 In relation to the Parties' incentive to increase bus fares, the Parties told us that there were a significant number of student fares on certain of the overlapping flows as a result of students travelling to and from Middlesbrough College and either Redcar or Saltburn.[341] The Parties said [✄] and that Arriva would therefore have a lower incentive to raise bus fares on these flows (with these students being unlikely to switch to rail as they travel for free on the bus). In a two-week window in November 2015, data collected by Arriva indicated that more than [20-30]% of all passengers leaving Middlesbrough on these routes were students.

11.149 The Parties also told us that there was a significant percentage of concessionary fares on these routes, comprising [40-50]% of total passengers on the 3, X3/X3A and X4, with around [70-80]% starting their journeys in Middlesbrough, Marske, Redcar or Saltburn.[342] The Parties said that Arriva's incentive to increase fares was even lower than would otherwise be the case as Arriva was unlikely to benefit fully from any material increase in fares for these passengers as the revenue that Arriva received in respect of these passengers was fixed on a yearly basis under the English National Concessionary Travel Scheme and that as these

[340] Arriva services in Middlesbrough and East Cleveland.
[341] Arriva response to provisional findings, p33.
[342] Arriva response to provisional findings, p33.

passengers enjoyed complimentary bus travel they would not divert to rail or car in response to a bus fare increase.

11.150 We consider the additional annual revenue that Arriva would earn if it increased bus fares by the maximum headroom available (ie the difference between a single and return fare or a return fare and a zonal fare) based on aggregate diversion ratios from the survey (17% diversion away from bus and 7.8% diversion from bus to rail). We take the proportion of concessionary fares into account in the calculation given that passengers travelling on concessionary fares do not pay for their bus journeys themselves, whereas they would have to pay to use the Northern Franchise rail service. The results are set out in Table 24 below.

Table 24: The Parties' incentive per annum to increase bus fares by the maximum headroom available based on survey diversion ratios

Rail origin	*Rail destination*	*Route*	*Flow revenue (£)*	*Route revenue (£)*	*Fare increase (%)*	*Impact on revenue (£)*
Marske	Redcar Central	3	[✂]	[✂]	[✂]	-[✂]
Redcar Central/East	Saltburn	3, X3/X3A, X4	[✂]	[✂]	[✂]	[✂]
Middlesbrough	Redcar Central/East, Saltburn, Marske	X3/X3A/ X4	[✂]	[✂]	[✂]	[✂]
Middlesbrough	Whitby	X4	[✂]	[✂]	[✂]	[✂]

Source: CMA calculations based on Arriva data and survey.

11.151 The results indicate that even if Arriva were to increase its bus fares on the overlapping flows by the maximum headroom available, there is either no or limited incentive to increase fares on the overlapping flows. As noted in paragraph 11.14211.141, this is an upper bound on fare increases and we consider that Arriva would not be likely to increase fares by this level in order to maintain a differential between its single and return fares and flow/route and zonal fares.

11.152 We sensitivity test the results based on different diversion ratios, including no Merger-specific diversion away from bus to rail. Even in that case we find that the Parties would not have sufficient incentive to increase bus fares as a result of the Merger.[343]

[343] In this extreme scenario, the Parties would still only gain £[✂] of additional revenue per annum across the flows set out in Table 24.

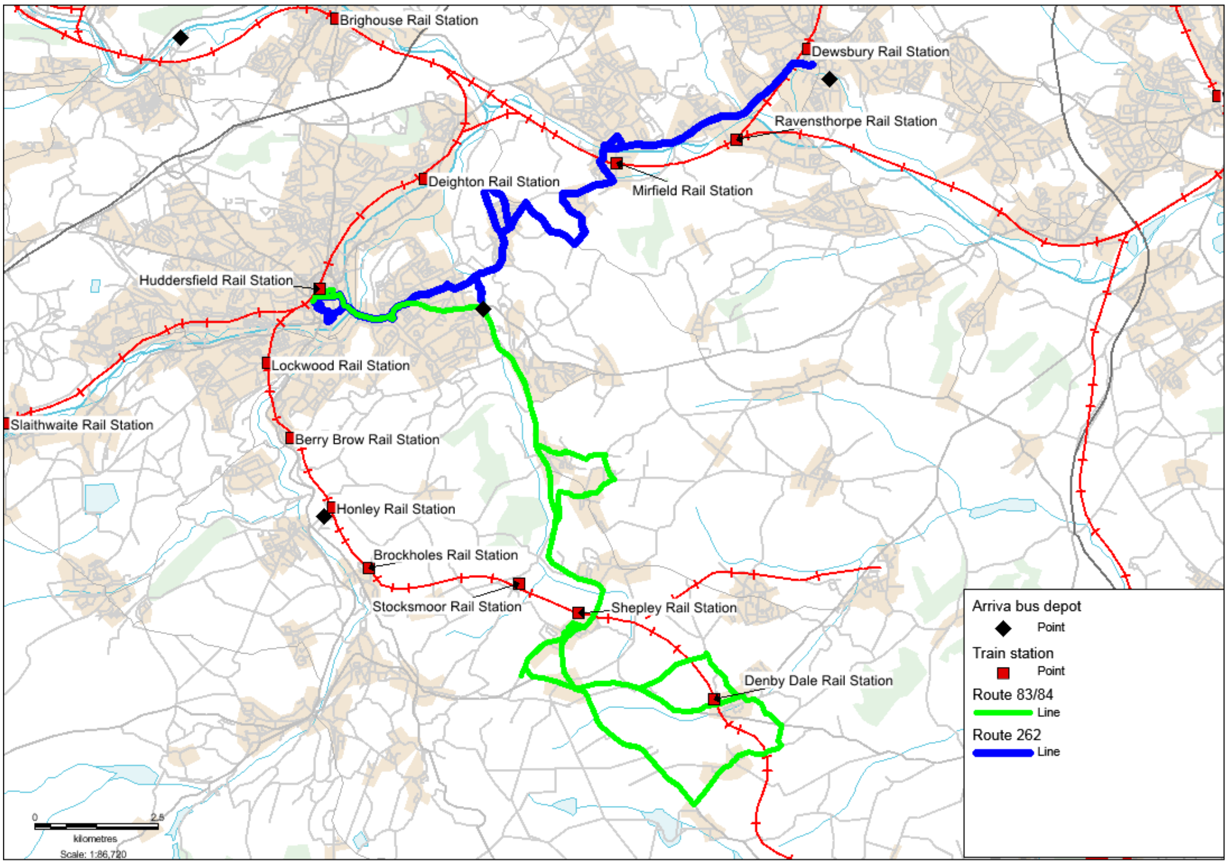
- *Conclusion*

11.153 We therefore conclude that the Merger has not resulted in or may not be expected to result on an SLC on the overlapping flows on routes 3, X3/X3A and X4.

Huddersfield

11.154 The map in Figure 12 shows the Parties' overlapping bus and rail flows on the relevant routes in the Huddersfield area.

Figure 12: Map of Huddersfield area



Source: Basemap data/CMA calculations.

11.155 Arriva's bus depot in Waterloo serves three bus routes running from Huddersfield that overlap with the Northern Franchise's rail services (83, 84 and 262). After filtering, one overlapping flow on each of these routes remains for in-depth analysis (Table 25).

Table 25: Number of overlapping flows on the routes

Route	*Number of flows post-filtering*	*Number of flows pre-filtering*
83	1	3
84	1	3
262	1	3

Source: The Parties.

11.156 We examine each of these routes in turn. The analysis of the route 262 is included in Appendix G as we both provisionally and finally conclude that the Merger has not resulted in or may not be expected to result in an SLC on any overlapping flows on this route.

Routes 83/84

Table 26: Routes 83 and 84 overlapping flow journey metrics with GJC

Origin	*Destination*	*Route*	*Bus fare*	*Rail fare*	*Bus frequency (per hour)*	*Rail frequency (per hour)*	*Bus journey time*	*Rail journey time*	*GJC*
Huddersfield	Shepley	83	2.3	2.6	1	1	34	18	-[10-20]%
Huddersfield	Shepley	84	2.3	2.6	1	1	28	18	-[5-10]%

Source: The Parties and CMA assessment.

11.157 The 83 and 84 bus routes are operated by Yorkshire Tiger. They run between Huddersfield Bus Station and Denby Dale Rail Station and overlap with the Northern Franchise's rail service on the flow between Huddersfield and Shepley. After filtering, the flow that remains for consideration on each of these routes is the overlapping flow from Huddersfield to Shepley.

11.158 Routes 83 and 84 operate Monday to Saturday. Both the 83 and 84 bus services operate a similar route between Huddersfield and Denby Dale. Route 83 calls at additional stops in Highburton, Kirkburton, Shepley, and Denby, resulting in a journey time of 34 minutes which is approximately six minutes longer than the comparable journey on the 84 bus service (see Table 26 above). The journey on the Northern Franchise's rail service takes about 18 minutes.

11.159 The Parties told us that the private car was likely to be an attractive alternative on routes 83 and 84 and that the journey could be completed by private car in 20 to 22 minutes. However, as set out in paragraphs 6.16 to 6.26 above, we have not seen any evidence that competition from the private car would be sufficient to constrain Arriva from increasing its bus fares on the overlapping bus and rail flow.

11.160 Total revenue on the 83 and 84 bus routes was £[✂] in the last financial year. The revenue generated on the overlapping flow (£[✂]) represents approximately [20-30]% of the total revenue on these routes, as shown in Table 27 below.

11.161 The Northern Franchise's revenue on this flow amounted to £[✂] in the last financial year.[344]

Table 27: Flow revenue of the Parties' bus and rail services, including journey numbers

Origin	*Destination*	*Route*	*Bus revenue*	*% of route revenue*	*Northern Franchise revenue*	*Journeys (Bus)*	*Journeys (Rail)*
Huddersfield	Shepley	83	£[✂]	[10-20]	£[✂]	[✂]	[✂]
Huddersfield	Shepley	84	£[✂]	[20-30]	£[✂]	[✂]	[✂]

Source: The Parties.

11.162 Route 83 accounts for [✂]% of Arriva's bus journeys on the overlapping flow. The difference in GJC between bus and rail on the overlapping flow on route 83 is close to -[10-20]%. This is because the Parties' bus and rail services operate at about the same frequency (with one service per hour), the single peak fare on the bus is 30 pence cheaper than the equivalent rail fare, but the journey time on the Northern Franchise rail service is 16 minutes quicker than on the bus. It is the additional journey time, compared to the 84 service, which drives the higher difference in GJC.

11.163 Route 84 accounts for the other [✂]% of Arriva's bus journeys on the overlapping flow. The difference in GJC between bus and rail on the overlapping flow on route 84 is relatively small on the 84 route (-[5-10]%). This is because the Parties' bus and rail services operate at about the same frequency (with one service per hour), the single peak fare on the bus is 30 pence cheaper than the equivalent rail fare and the journey time by rail is 10 minutes quicker than on the bus. The Parties told us that while frequencies for routes 83 and 84 appeared similar, route 83 was more sporadic, characterised by a large number of earlier morning services and followed by intermittent services during the day.[345] The Parties also said that the service on route 84 ended at around 18:00, compared to the Northern Franchise service which ran until 22:00 and that the 84 did not run on a Sunday.

11.164 Notwithstanding the fact that the route 84 service finishes earlier than the Northern Franchise rail service, the relatively small GJC difference on this flow suggests that the degree of differentiation between bus and rail is low.

[344] The Parties told us that this accounted for approximately [0-5]% of the Northern Franchise's total revenue on the 83/84 bus routes. The Parties said that, taking this into account, the Northern Franchise had very little incentive to increase the fares on this flow.
[345] Arriva response to provisional findings, p35.

Therefore, we consider that passengers are likely to view bus and rail as viable alternatives.

11.165 Arriva is the sole operator of bus services on the 83 and 84 routes. The Northern Franchise rail service is the only service competing with Yorkshire Tiger at present.

11.166 The Parties told us that FirstGroup had a bus depot under six minutes' drive time from Huddersfield Rail Station. The Parties said that, in view of this, FirstGroup could easily enter to serve this flow if Arriva were to raise its bus fares or reduce the frequency of its services and, therefore, that threat of such entry would constrain Arriva from taking any such action. However, we have not seen evidence that FirstGroup has plans to enter this flow or that entry would be timely, likely or sufficient in response to a fare increase by Arriva to prevent an SLC.

- *Provisional conclusion*

11.167 Our analysis of GJC and other factors suggests that rail and bus services compete closely on this flow. The overlapping flow covers a large share of the total route revenue which suggests the incentive to increase fares. No other viable public transport opportunities are available on the routes and therefore passengers do not have alternative public transport choices on the flows. We do not consider entry or the threat of entry to be sufficient to constrain Arriva on this flow.

11.168 In our provisional findings, we therefore concluded that the Merger has resulted in or may be expected to result in an SLC on the Huddersfield to Shepley flow as a result of the Parties having an incentive to increase fares on the overlapping flow as a result of the Merger.[346]

- *Further assessment of the Parties' ability and incentive to increase bus fares*

11.169 Following provisional findings and based on further evidence submitted by the Parties, we carry out further analysis of the Parties' ability and incentive to increase bus fares on the overlapping flows as a result of the Merger.

11.170 In relation to the Parties' ability to increase fares, the Parties told us that bus fares on the overlapping flow were constrained by:

[346] In our provisional findings, we further concluded that the Merger has not resulted in or may not be expected to create an incentive for the Parties to degrade service quality and/or frequency on this flow.

(a) multi-operator tickets, such as the West Yorkshire Combined Authority's Metro ticket, which cannot be changed without the agreement from the relevant authority; and

(b) Arriva network tickets, such as the Tiger Day and Tiger Week tickets.[347]

11.171 We consider the extent to which multi-operator and zonal tickets restrict the Parties' ability to increase bus fares on overlapping flows in the Huddersfield area:

(a) We note that the percentage of flow revenue generated by multi-operator tickets on this flow is [10-20]%. The West Yorkshire Combined Authority Metro Daysaver multi-operator ticket is priced at £5.50 compared to a peak adult return fare of £4.10 on the flow and the peak adult return fare could therefore be increased by up to 34%.

(b) Additionally, the Yorkshire Tiger Day ticket is priced at £4.40. Therefore, there is scope for the Parties to increase the return fare on the flow by 7% on a peak adult return before reaching equivalence with the Yorkshire Tiger Day ticket.

11.172 We therefore conclude that the Yorkshire Tiger Day ticket constrains the ability of the Parties to increase bus fares on the overlapping flows, whereas the West Yorkshire Combined Authority Metro Daysaver ticket does not.

11.173 In relation to the Parties' incentive to increase bus fares on the overlapping flow, the Parties told us that, based on rolling 12-month data, [30-40]% of passengers on route 83 and [30-40]% of passengers on route 84 are concessionary.[348] The Parties said that Arriva's incentive to increase fares was even lower than would otherwise be the case as Arriva was unlikely to benefit fully from any material increase in fares for these passengers as the revenue that Arriva received in respect of these passengers was fixed on a yearly basis under the English National Concessionary Travel Scheme and that as these passengers enjoyed complimentary bus travel they would not divert to rail or car in response to a bus fare increase.

11.174 We consider the additional annual revenue that Arriva would earn if it increased bus fares by the maximum headroom available (ie the difference between a single and return fare or a return fare and a zonal fare) based on aggregate diversion ratios from the survey (17% diversion away from bus and 7.8% diversion from bus to rail). We take the proportion of

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[347] Arriva response to provisional findings, p35.
[348] Arriva response to provisional findings, p36.

concessionary fares into account in the calculation. The results are set out in Table 28 below.

Table 28: The Parties' incentive per annum to increase bus fares by the maximum headroom available based on survey diversion ratios

Rail origin	*Rail destination*	*Route*	*Flow revenue (£)*	*Route revenue (£)*	*Fare increase (%)*	*Impact on revenue (£)*
Huddersfield	Shepley	83, 84	[✂]	[✂]	[✂]	-[✂]

Source: CMA calculations based on Arriva data and survey.

11.175 The results indicate that there is no incentive for Arriva to increase its bus fares on the overlapping flow. Even if fares are increased by the maximum headroom available, there is either no or limited incentive to increase fares on the overlapping flows. This is an upper bound on fare increases and we consider that Arriva would not be likely to increase fares by this level in order to maintain a differential between its single and return fares and flow/route and zonal fares. If there is not sufficient incentive for the Parties to increase fares by this maximum amount, there will not be a profit incentive to make more limited fare increases.

11.176 We sensitivity test the results based on different diversion ratios, including no Merger-specific diversion away from bus to rail. Even in that case we find that the Parties would not have sufficient incentive to increase bus fares as a result of the Merger.[349]

- *Conclusion*

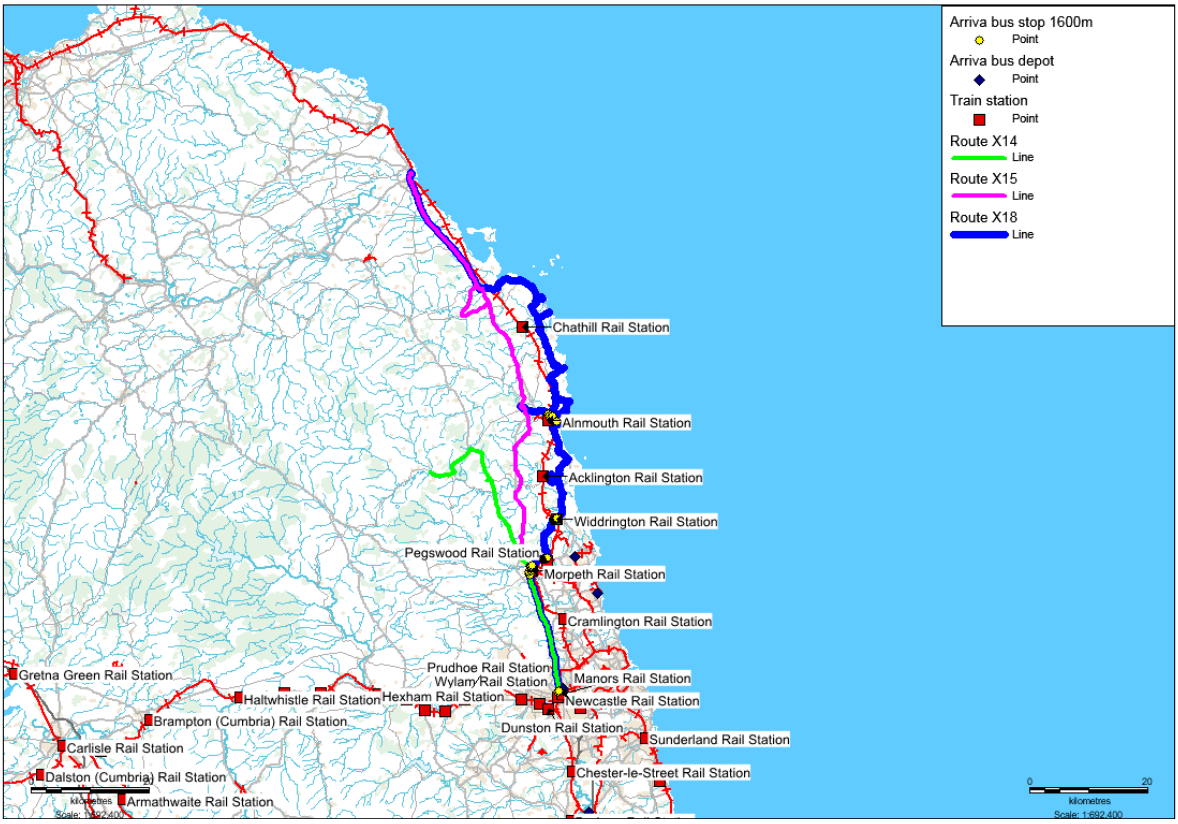
11.177 We therefore conclude that the Merger has not resulted in or may not be expected to result in an SLC on the overlapping flow on routes 83 and 84.

Ashington

11.178 The map in Figure 13 indicates the overlaps between Arriva's bus services and the Northern Franchise in the Ashington area.

[349] In this extreme scenario, the Parties would still only gain £[✂] of additional revenue per annum.

Figure 13: Map of Ashington area



Source: Basemap data/CMA calculations.

11.179 Arriva's Ashington bus depot serves three bus routes across Northumberland and Newcastle that overlap with the Northern Franchise's rail services (X14, X15 and X18). After filtering, four flows on the route X14, X15 and X18 remained for consideration (Table 29). The overlapping flow from Morpeth to Newcastle was not included in our analysis as it fell outside the 1,200-metre catchment area adopted. However, in internal documents reviewed, we noted that Arriva [✂].[350] Moreover, the Morpeth to Newcastle flow was included by the Parties in the survey on bus-rail overlaps conducted (see Appendix F). For this reason, we have also included this flow in our analysis.

Table 29: Number of overlapping flows on the routes

Route	*Number of flows post-filtering*	*Number of flows pre-filtering*
X14	1	2
X15	1	3
X18	2	6

Source: The Parties and CMA assessment.

350 [✂]:[✂].

11.180 In the following paragraphs we set out our assessment of the overlapping flows on the routes X14, X15 and X18.

Routes X14/X15/X18

Table 30: Routes X14/X15/X18 overlapping flow journey metrics

Origin	*Destination*	*Route*	*Bus fare*	*Rail fare*	*Bus frequency (per hour)*	*Rail frequency (per hour)*	*Bus journey time*	*Rail journey time*
Morpeth	Newcastle	X14	5.2	5.4	3	1	28	22
Morpeth	Newcastle	X15	5.2	5.4	3	1	28	22
Morpeth	Newcastle	X18	5.2	5.4	3	1	28	22
Newcastle	Widdrington	X18	6.1	7.4	0	0.5	56	46

Source: The Parties.

11.181 The buses operating on routes X14/X15/X18 are ‘MAX’ buses operated by Arriva North East. These bus routes overlap with the Northern Franchise’s rail service on the flow between Morpeth and Newcastle (the X18 service also overlaps on the flow between Newcastle and Widdrington).

11.182 Bus services on route X14 run on weekdays and Saturdays but not on Sundays whereas bus services on routes X15 and X18 operate seven days a week. The route X14 runs between Newcastle and Thropton, while routes X15 and X18 run between Newcastle and Berwick. The journey time on routes X14/X15/X18 is approximately 28 minutes (see Table 30 above). The journey on the Northern Franchise’s rail service takes about 22 minutes (although the Northern Franchise rail service does not operate on Sundays).

11.183 The Parties told us that the private car was likely to be an attractive alternative on routes X14/X15/X18 and that the journey could be completed by private car in 22 to 26 minutes. However, as set out in paragraphs 6.16 to 6.26 above, we have not seen any evidence that competition from the private car would be sufficient to constrain Arriva from increasing its bus fares on the overlapping bus and rail flow. The Parties also said that their survey indicated a constraint from the private car as 28% of passengers had access to a car and that 28% would divert to car in response to the forced diversion question. However, as set out above, we do not consider the survey results at the flow level to be sufficiently robust to place evidential weight on. We also note that even using the flow level results cited by the Parties, 72% of passengers on the flow do not have access to a car.

11.184 Total revenue on the X14/X15/X18 bus routes was £[✂] in the last financial year, with the revenue generated on the overlapping flows (£[✂]) representing approximately [10-20]% of the total revenue on these routes (see Table 31).

11.185 The Northern Franchise's revenue on these overlapping flows amounted to £[✄] in the last financial year.[351]

Table 31: Flow revenue of the Parties' bus and rail services, including journey numbers

Origin	*Destination*	*Route*	*Bus revenue*	*% of route revenue*	*Northern Franchise revenue*	*Journeys (Bus)*	*Journeys (Rail)*
Morpeth	Newcastle	X14	£[✄]	[10-20]	[✄]	[✄]	[✄]
Morpeth	Newcastle	X15	£[✄]	[5-10]	[✄]	[✄]	[✄]
Morpeth	Newcastle	X18	£[✄]	[5-10]	[✄]	[✄]	[✄]
Newcastle	Widdrington	X18	£[✄]	[0-5]	[✄]	[✄]	[✄]

Source: The Parties.
Note: Flow revenue is calculated using a 1,200 metre straight line distance catchment area.

11.186 On Morpeth to Newcastle, the Parties' bus services operate at a greater frequency than the Northern Franchise rail service, the single peak fare on the bus is 20 pence cheaper than the equivalent rail fare[352] but the journey time on the Northern Franchise rail service is six minutes quicker than on the bus (Table 30). This suggests that the degree of differentiation between bus and rail is low. Therefore, we consider that passengers are likely to view bus and rail services as viable alternatives.

11.187 The Parties told us that passengers on routes X14/X15/X18 may not view the Northern Franchise rail service as a viable alternative if they wanted to travel to a destination around the vicinity of Haymarket, given that the train station was located 1.26 km walking distance away from the Haymarket bus station in a different part of Newcastle city. Moreover, the Parties said that the bus service was more convenient for students and employees travelling from Morpeth to Newcastle University or the Newcastle campus of Northumbria University as well as patients and employees of the Royal Victoria Infirmary. However, the Parties have not provided any evidence indicating that the numbers of passengers travelling to these locations are significant enough to affect the competitive dynamics of the route.

11.188 The Northern Franchise faces limited competition from other rail operators. VTEC and CrossCountry operate services on the flow at a lower frequency compared to the Northern Franchise, but with a shorter journey time of 12 minutes. Single peak rail fares are the same for all rail operators (£5.40). The Northern Franchise and CrossCountry generate [80-90]% of the total rail revenue on the Morpeth to Newcastle flow,[353] with VTEC receiving the remaining [10-20]%, which suggests that it is not a sufficient competitive

[351] The Parties told us that this accounted for approximately [10-20]% of the Northern Franchise's total revenues on the relevant routes. The Parties said that Arriva would have very little incentive to make changes to this flow that could have unintended consequences across the wider Northern Franchise rail service.
[352] The difference between the bus fare and the rail fare on the flow between Newcastle and Widdrington is £1.30.
[353] [60-70]% and [20-30]% respectively.

constraint. On the section of the flow from Morpeth to Widdrington, the Northern Franchise rail service is the only service competing with Arriva North East at present.

11.189 The Parties told us that that the competing bus operated by Glen Valley Tours, ran from Morpeth to Newcastle twice a day on Wednesday and once a day on Saturday with a journey time of 25 minutes. The Parties noted that Go North East had been competing with Arriva's local services along the Great North Road. The Parties said that in the event that Arriva were to increase fares on its bus services on this flow or degrade service quality, given the low barriers to entry and expansion, Glen Valley Tours could expand its existing services or other bus operators could enter the flow. The Parties told us that Stagecoach and Go North East each had depots within 10 minutes' drive time of this flow. The Parties said that the threat of such entry would constrain Arriva from raising its bus fares or reducing the frequency of its services.

11.190 We have not seen evidence that Glen Valley Tours or Go North East have plans to enter this flow or that entry would be likely or sufficient in response to a fare increase by Arriva to prevent an SLC.

- *Provisional conclusion*

11.191 Our analysis of journey metrics (ie fares, frequency and journey times) suggests that rail and bus services may compete closely on this flow. Revenue on the overlapping flows is relatively large (£✄]). We do not consider entry or the threat of entry to be viable on this flow.

11.192 In our provisional findings, we therefore concluded that the Merger has resulted in or may be expected to result in an SLC on the Morpeth to Newcastle flow as a result of the Parties having an incentive to increase fares on the overlapping flow as a result of the Merger.[354]

- *Further assessment of the Parties' ability and incentive to increase bus fares*

11.193 Following provisional findings and based on further evidence submitted by the Parties, we carry out further analysis of the Parties' ability and incentive to increase bus fares on the overlapping flows as a result of the Merger.

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[354] In our provisional findings, we further concluded that the Merger has not resulted in or may not be expected to create an incentive for the Parties to degrade service quality and/or frequency on these flows.

11.194 In relation to the Parties' ability to increase fares, the Parties told us that bus fares on the overlapping flows of routes X14/X15/X18 were constrained by:

(a) zonal tickets, such as the Arriva North East All Zone saver day and the Rothbury and Morpeth Routesaver, which are priced at £7.80 and £7.00, respectively;

(b) multi-operator tickets, such as the North East Explorer Ticket, which is priced at £9.70 for an adult; and

(c) the graded fare structure on the route, with the next fare stage priced at £5.60 for an adult single fare.[355]

11.195 We consider the extent to which multi-operator and zonal tickets restrict the Parties' ability to increase bus fares on overlapping flows in the Ashington area:

(a) On the Newcastle to Morpeth flow, an Arriva adult single fare is £5.20 and an adult return fare is £7.00. The Parties note that an 8% price increase in Arriva's single fare on the Morpeth to Newcastle flow would result in the fare reaching equivalence with the subsequent fare stage.

(b) We note that the Rothbury & Morpeth Routesaver day ticket allows no headroom for a fare increase on a peak adult return. Weekly and four-weekly fares are already above the price of zonal fares. The graduated fare structure on the route allows headroom of 7% on a peak single fare on the overlapping flow before it would exceed the price of other longer distance fares on the route.

11.196 We therefore conclude that the multi-operator and zonal tickets limit the Parties' ability to increase bus fares on the overlapping flows.

11.197 In relation to the Parties' incentive to increase bus fares on these flows, the Parties told us that, based on a two-week period of data in November 2015, [40-50]% of passengers boarding route X14, X15 and X18 services at Newcastle Haymarket in the direction of Morpeth were concessionary passengers, while [40-50]% boarding at Morpeth bus station travelling in the direction of Newcastle were concessionary.[356] The Parties said that Arriva's incentive to increase fares was even lower than would otherwise be the case as Arriva was unlikely to benefit fully from any material increase in fares for these passengers as the revenue that Arriva received in respect of these passengers was fixed on a yearly basis under the English National

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[355] Arriva response to provisional findings, p38.
[356] Arriva response to provisional findings, p38.

Concessionary Travel Scheme and that as these passengers enjoyed complimentary bus travel they would not divert to rail or car in response to a bus fare increase.

11.198 We consider the additional annual revenue that Arriva would earn if it increased bus fares by the maximum headroom available (ie the difference between a single and return fare or a return fare and a zonal fare) based on aggregate diversion ratios from the survey (17% diversion away from bus and 7.8% diversion from bus to rail). We take the proportion of concessionary fares into account in the calculation. The results are set out in Table 32 below.

Table 32: The Parties' incentive per annum to increase bus fares by the maximum headroom available based on survey diversion ratios

Rail origin	*Rail destination*	*Route*	*Flow revenue (£)*	*Route revenue (£)*	*Fare increase (%)*	*Impact on revenue (£)*
Morpeth	Newcastle	X14, X15, X18	[✄]	[✄]	[✄]	-[✄]

Source: CMA calculations based on Arriva data and survey.

11.199 The results indicate that there is no incentive for Arriva to in increase its bus fares on the overlapping flow. Even if fares are increased by the maximum headroom available, there is no incentive to increase fares on the overlapping flow. This is an upper bound on fare increases and we consider that Arriva would not be likely to increase fares by this level in order to maintain a differential between its single and return fares and flow/route and zonal fares.

11.200 We sensitivity test the results based on different diversion ratios, including no Merger-specific diversion away from bus to rail. Even in this case we find that the Parties would not have sufficient incentive to increase bus fares as a result of the Merger.[357]

- *Conclusion*

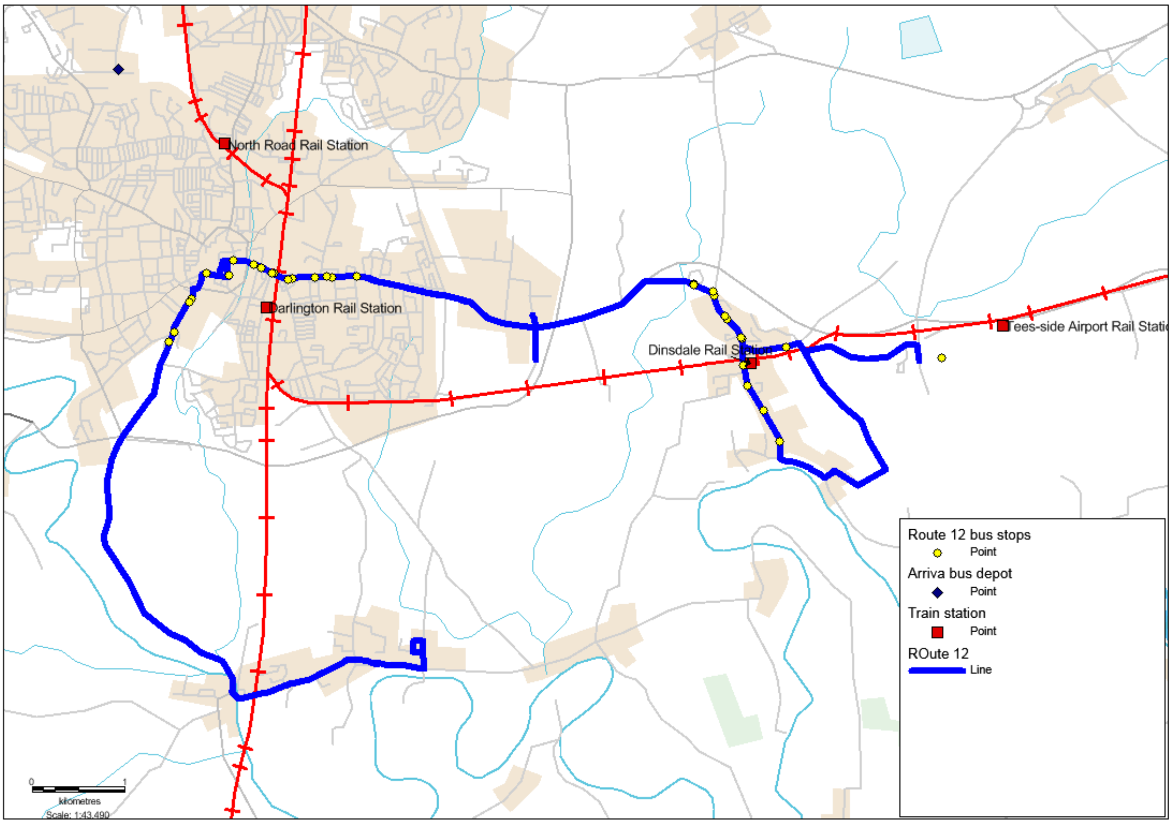
11.201 We therefore conclude that the Merger has not resulted in or may not be expected to result on an SLC on the overlapping flows on routes X14, X15 and X18.

[357] In this extreme scenario, the Parties would still only gain £[✄] of additional revenue per annum.

Darlington

11.202 The map in Figure 14 shows the overlapping bus and rail route in the Darlington area.

Figure 14: Map of Darlington area



Source: Basemap data/CMA calculations.

11.203 There is only one flow on the 12 bus service that overlaps with the Northern Franchise's rail service (both before and after applying filters), which is the flow between Darlington and Dinsdale (Table 33).

Table 33: Number of overlapping flows on the route

Route	*Number of flows post-filtering*	*Number of flows pre-filtering*
12	1	1

Source: The Parties and CMA assessment.

Route 12

11.204 Route 12 is operated by Arriva North East. The service runs from Hurworth to Middleton St George and operates from Monday to Sunday between the hours of 07:05 to 18:54.[358] The journey time from Darlington to Dinsdale on the bus is about 20 minutes, compared to a 5-minute rail journey (Table 34).

11.205 The Parties told us that the private car was likely to be an attractive alternative on route 12 and that the journey could be completed by private car in 10 to 14 minutes. However, as set out in paragraphs 6.16 to 6.26 above, we have not seen any evidence that competition from the private car would be sufficient to constrain Arriva from increasing its bus fares on the overlapping bus and rail flow.

11.206 Northern Franchise rail services have a higher frequency (two per hour) compared to the bus (one per hour). However, the single fare on the bus is lower (£2.30) than the rail fare (£2.80). The Parties submitted that their GJC analysis showed a difference of [✂]% between the Northern Franchise rail service and the route 12 bus service, reflecting differences in the characteristics of the rail and bus services on the flow, including frequency and journey times.[359]

Table 34: Route 12 overlapping flow journey metrics

Origin	*Destination*	*Route*	*Bus fare*	*Rail fare*	*Bus frequency (per hour)*	*Rail frequency (per hour)*	*Bus journey time*	*Rail journey time*
Darlington	Dinsdale	12	2.3	2.8	1	2	20	5

Source: The Parties.

11.207 The Parties' GJC analysis and the difference in journey time and frequency between bus and rail on the overlapping flow in Table 34 initially suggests some degree of differentiation between the bus and rail offerings, with a likely passenger preference for rail. However, Table 35 shows that bus revenue on the overlapping flow (£[✂]) is higher than rail revenue (£[✂]), indicating that passengers might prefer to travel by bus on the flow.[360]

Table 35: Flow revenue of the Parties' bus and rail services, including journey numbers

Origin	*Destination*	*Route*	*Flow revenue*	*% of bus route revenue*	*Northern Rail revenue*	*Journeys (Bus)*	*Journeys (Rail)*
Darlington	Dinsdale	12	£[✂]	[10-20]	£[✂]	[✂]	-

Source: The Parties.

11.208 Total route revenue for the last financial year on the 12 service was £[✂]. The overlapping flow revenue in the last financial year was £[✂], which represents a relatively high revenue share on the route ([10-20]% of the route revenue). Furthermore, single-peak adult bus fares are currently 50

[358] Five services on a Sunday between the hours of 09:51 and 18:05.
[359] Arriva response to provisional findings, p40.
[360] The Parties told us that this represented [0-5]% of the Northern Franchise's route revenue. The Parties said that, in view of this, the Northern Franchise was unlikely to have any incentive to alter fares on the flow.

pence lower than the equivalent rail fare. In this regard, the Parties noted that in May 2016, Arriva North East had reduced the frequency of route 12 on the Darlington to Dinsdale flow from two services an hour to one and that Arriva's revenue on the flow would therefore fall in the current financial year.[361]

11.209 The Northern Franchise rail service is the only service competing with Arriva North East on the overlapping flow at present. The Parties told us that Croft Coach and Stagecoach had a depot within 20 minutes' drive time and given the low barriers to entry and expansion it would be easy for a bus operator to enter this flow. The Parties also said that Scarlet Band, based in County Durham, operated bus services in the surrounding area and was well placed to enter the flow if an opportunity arose. However, we have not seen evidence that Scarlet Band has plans to enter this flow or that entry would be likely or sufficient in response to a fare increase by Arriva to prevent an SLC.

11.210 The Parties also told us that Arriva North East had entered a voluntary partnership with all the councils in the Tees Valley, which had resulted in a high degree of certainty for Arriva North East to invest in its bus service. Therefore, Arriva had limited incentive to degrade services on these routes and flows as this would damage both its relationship with the partnership local councils, and the investments it had already made.

- *Provisional conclusion*

11.211 No other viable public transport opportunities are available on the routes and therefore passengers do not have alternative public transport choices on the flows. The overlapping flow covers a significant share of the total route revenue which suggests the incentive to increase fares. We do not consider entry or the threat of entry to be sufficient on these routes.

11.212 In our provisional findings report, we therefore concluded that the Merger has resulted in or may be expected to result in an SLC on the Darlington to Dinsdale flow as a result of the Parties having an incentive to increase bus fares on the overlapping flow as a result of the Merger.[362]

[361] Arriva response to provisional findings, p40.
[362] In our provisional findings, we further concluded that the Merger has not resulted in or may not be expected to create an incentive for the Parties to degrade service quality and/or frequency on this flow.

- *Further assessment of the Parties' ability and incentive to increase bus fares*

11.213 Following provisional findings and based on further evidence submitted by the Parties, we carry out further analysis of the Parties' ability and incentive to increase bus fares on the overlapping flows as a result of the Merger.

11.214 In relation to the Parties' ability to increase fares, the Parties told us that their ability to raise fares on the overlapping flow was constrained by the graduated fare structure on route 12.[363] However, we note that the next fare stage on the route is priced at £2.90. As the fare from Darlington to Dinsdale is currently priced at £2.30, this would allow for a 26% increase before reaching equivalence with the next fare stage. We therefore conclude that the graduated fares structure on the route 12 does not constrain the Parties' ability to increase bus fares on the overlapping flow.

11.215 In relation to the Parties' incentive to increase bus fares, the Parties told us that there were a significant number of concessionary fares on the route. Based on a two-week period of data in July 2016, [50-60]% of passengers boarding the route 12 service at the nearest bus stop to Dinsdale rail station were concessionary.[364] The Parties said that Arriva's incentive to increase fares was even lower than would otherwise be the case as Arriva was unlikely to benefit fully from any material increase in fares for these passengers as the revenue that Arriva received in respect of these passengers was fixed on a yearly basis under the English National Concessionary Travel Scheme and that as these passengers enjoyed complimentary bus travel they would not divert to rail or car in response to a bus fare increase.

11.216 We consider the additional annual revenue that Arriva would earn if it increased fares by the maximum headroom available of 26% based on aggregate diversion ratios from the survey (17% diversion away from bus and 7.8% diversion from bus to rail). We take the proportion of concessionary fares into account in the calculation. The results are set out in Table 36 below.

[363] Arriva response to provisional findings, p40.
[364] Arriva response to provisional findings, p41.

Table 36: The Parties' incentive per annum to increase bus fares by the maximum headroom available based on survey diversion ratios

Rail origin	*Rail destination*	*Route*	*Flow revenue (£)*	*Route revenue (£)*	*Fare increase (%)*	*Impact on revenue (£)*
Darlington	Dinsdale	12	[✄]	[✄]	[✄]	[✄]

Source: CMA calculations based on Arriva data and survey.

11.217 The results indicate that there is only limited incentive for Arriva to increase its bus fares on the overlapping flow, even if fares are increased by the maximum headroom available.

11.218 We sensitivity test the results based on different diversion ratios, including no Merger-specific diversion away from bus to rail. Even in this case we find that the Parties would not have sufficient incentive to increase bus fares as a result of the Merger.[365]

- *Conclusion*

11.219 We therefore conclude that the Merger has not resulted in or may not be expected to result in an SLC on the overlapping flow on route 12.

Conclusion

11.220 We assess the overlapping bus and rail flows which failed the filters described in Section 9 in detail, taking into account the additional evidence submitted by the Parties following provisional findings and our further assessment of the Parties' ability and incentive to increase bus fares post-Merger.

11.221 We conclude that the Merger has not resulted in or may not be expected to result in an SLC on any overlapping bus and rail flows.

12. The effect of the merger on transport networks

12.1 In our assessment of market definition we note that some passengers may purchase network tickets rather than route or flow-specific tickets. For these passengers, the relevant market may be the network rather than the route or flow. We also note that, on the supply side, bus operators organise their services around hubs and depots and may switch their services to or from the overlapping bus and rail flows and routes.

[365] In this extreme scenario, the Parties would still only gain £[✄] of additional revenue per annum.

12.2 Arriva UK bus offers at least 22 network tickets in the geographical area served by the Northern Franchise. ARN offers 17 rail network tickets. In addition to these operator-specific network tickets, both Arriva UK Bus and the Northern Franchise participate in a number of multi-operator ticketing schemes promoted and managed either by LTAs or various stakeholder groups.

12.3 We therefore consider the effect of the Merger on transport networks. We summarise our findings below and set out further detail of the assessment in Appendix H.

The views of the Parties

12.4 The Parties told us that a theory of harm in relation to network effects was predicated on the current existence of strong competition between the Arriva and ARN networks and the prospect that such competition would be reduced significantly as a result of the Merger.[366]

12.5 The Parties said that Arriva bus and ARN network tickets were not currently close competitors. In particular, the Parties emphasised that Arriva did not currently offer on a permanent basis any rail tickets in the Northern Franchise area and that there was a significant disparity in price between Arriva and ARN day and seven day tickets in the Northern Franchise area. The Parties also told us that the scope of the Northern Franchise network was determined by the Northern Franchise award and the routes contained therein and that Arriva's bus network tickets did not extend to all destinations covered by ARN network tickets.

The views of third parties

12.6 Third parties did not raise concerns in relation to the effect of the Merger on transport networks.

CMA assessment

12.7 We consider four ways in which the Merger might give rise to horizontal effects at the level of transport networks.

12.8 We first consider the possibility that Arriva would have the ability and incentive post-Merger to profitably degrade its offer of bus network tickets by diverting passengers to either rail network tickets or specific ARN rail flows.

[366] Arriva response to issues statement, paragraphs 7.1 & 7.2.

This theory of harm is contingent on passengers buying network tickets and being willing substitute between bus and rail.

12.9 There was limited geographical overlap between bus and rail network tickets, that there was a significant price differential between the two types of network ticket and that bus and rail network tickets covered networks with different densities. This indicates that bus and rail network tickets serve different market segments and that most passengers are unlikely to substitute between them. The wide availability of alternative bus network tickets offered by Arriva's competitors are likely to exert a competitive constraint on Arriva post-Merger and restrict its ability and incentive to flex its commercial offer on bus network tickets.

12.10 We also consider the possibility that the Merger would enable the Parties to leverage wider network effects as a result of operating the Northern Franchise by introducing multi-modal tickets restricted to their own services. The restrictions imposed by committed obligations in rail franchises, the important role of PTEs in developing network tickets and the increasing importance of multi-operator tickets are likely to restrict the ability and incentive of the Parties to leverage any wider network effects through ownership of Arriva and the Northern Franchise.

12.11 Finally, we assess the possibility that the Merger could give Arriva an incumbency advantage with LTAs and whether it could provide Arriva with the incentive to engage in anti-competitive behaviour, such as determining bus operator information available at rail stations or engaging in selective advertising. However, LTAs told us that scale of an operator had no effect on an operator's dealings or negotiations with them, that tenders were widely used to award specific routes to operators and that tender specifications were designed to maximise market contestability. LTAs also confirmed that their role included ensuring that information on the services provided by all operators was available to passengers.

Conclusion

12.12 We therefore conclude that the Merger has not resulted in or may not be expected to result in an SLC in relation to transport networks.

13. Findings on the 'relevant merger situation' and on the SLC test

13.1 As a result of our assessment, we conclude that:

(a) the award of the Northern Franchise to ARN has created a relevant merger situation;

(b) the relevant merger situation has not resulted in or may not be expected to result in an SLC for the award of rail franchises;

(c) the relevant merger situation has not resulted in or may not be expected to result in an SLC in relation to transport networks;

(d) the relevant merger situation has resulted in or may be expected to result in an SLC on the following overlapping rail flows:

(i) Leeds to Sheffield;

(ii) Wakefield to Sheffield; and

(iii) Chester to Manchester.

(e) the relevant merger situation has not resulted in or may not be expected to result in an SLC on any overlapping bus and rail flows:

14. Remedies

14.1 Having concluded that the Merger has resulted in or may be expected to result in SLCs on the overlapping rail flows identified in Section 10, we are required to decide what action, if any, should be taken to remedy, mitigate or prevent the SLCs or any adverse effects resulting from the SLCs, having regard to the effect of any action on any relevant customer benefits (RCBs) that may result from the Merger.[367] If so, we are also required to decide whether such action should be taken by the CMA or recommend for others to take it and, in either case, we are required to report on the actions to be taken and what these are designed to address.[368]

14.2 The Act requires that, when considering possible remedial actions, we shall 'in particular, have regard to the need to achieve as comprehensive a solution as is reasonable and practicable to the SLC and any adverse effects resulting from it'.[369] To fulfil this requirement we will seek remedies that are effective in addressing the SLC and its resulting adverse effects and will then select the least costly remedy that we consider to be effective. We will also seek to ensure that no remedy is disproportionate to the SLC and its adverse effects. In this consideration we may also have regard, in accordance with the Act,[370] to any RCBs arising from the Merger.

[367] Section 35(3).
[368] Section 35(3) and *CC8: Merger Remedies guidance*, paragraph 1.6.
[369] Section 35(4).
[370] Section 35(5).

14.3 On 9 September 2016, we published a Remedies Notice. In the Remedies Notice we sought views on potential behavioural remedies for the overlapping rail/rail flows, such as a restriction on fare increases, whereby unregulated and dedicated fares on the affected flows may only be increased up to a certain measure. We stated that this measure would be linked to increases in regulated and dedicated fares on other routes, or to regulated fares on the same flow.[371]

14.4 The Remedies Notice also discussed bus/rail remedies. However, following our conclusion in Section 11, these remedies are no longer relevant.

14.5 We received written submissions from the Parties and one third party on possible remedies. We also held a remedies hearing with the Parties to discuss their submissions in more detail. We did not receive any submissions which proposed alternative remedies to those set out within the Remedies Notice.

Remedy options

14.6 Remedies are conventionally classified as either structural or behavioural:[372]

(a) Structural remedies, such as divestiture or prohibition, are generally one-off measures that seek to restore or maintain the competitive structure of the market through a direct change in market structure.

(b) Behavioural remedies, such as fare controls, are measures that are designed to regulate or control the ongoing conduct of parties following a merger so as to address an SLC and/or its adverse effects.

14.7 Our Merger Remedies Guidelines[373] set out four aspects to be considered in assessing the effectiveness of a remedy:

(a) **Impact on SLC and resulting adverse effects** – where possible, the CMA will seek to restore competitive rivalry, through remedies that re-establish the structure of the market expected in the absence of the merger.

(b) **Appropriate duration and timing** – the CMA prefers a remedy that quickly addresses competitive concerns, with the effect of the remedy sustained for the likely duration of the SLC.

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[371] Arriva/Northern Remedies Notice, paragraph 12.
[372] *CC8: Merger Remedies guidance*, paragraph 4.1.
[373] *CC8: Merger Remedies guidance*, paragraph 1.8.

(c) **Practicality** – a practical remedy should be capable of effective implementation, monitoring and enforcement.

(d) **Acceptable risk profile** – the CMA will seek remedies that have a high degree of certainty.

14.8 In merger inquiries, we will generally prefer structural remedies rather than behavioural remedies because:[374]

(a) structural remedies are likely to deal with an SLC and its resulting adverse effects directly and comprehensively at source in restoring rivalry;

(b) behavioural remedies may not have an effective impact on the SLC and its resulting adverse effects, and may create significant costly distortions in market outcomes; and

(c) structural remedies do not normally require monitoring and enforcement once implemented.

14.9 In general, one or more of the following conditions will normally apply in the circumstances where we select behavioural remedies as the primary source of remedial action in a merger inquiry:[375]

(a) Divestiture and/or prohibition is not feasible or the relevant costs of any feasible structural remedy far exceed the scale of the adverse effects of the SLC.

(b) The SLC is expected to have a relatively short duration (eg two to three years) due, for example, to the limited remaining term of a patent or exclusive contract.

(c) RCBs are likely to be substantial compared with the adverse effects of the merger and these benefits would be largely preserved by behavioural remedies but not by structural remedies.

14.10 There are two broad categories of behavioural remedies: those that enable competition (for example, by providing access to products or facilities of the merged entity) and those that control the adverse effects expected from the merger[376] (for example, fare or quality control).

[374] *CC8: Merger Remedies guidance*, paragraph 2.14.
[375] *CC8: Merger Remedies guidance*, paragraph 2.18.
[376] *CC8: Merger Remedies guidance*, paragraph 2.17.

14.11 Having considered the effectiveness of remedy options, we will then consider the costs (including costs to the Parties, third parties, the CMA and other monitoring agencies) of those remedies that we expect would be effective in addressing the SLC and resulting adverse effects.[377] In order to be reasonable and proportionate, we will seek to select the least costly remedy or package of remedies that we consider will be effective.[378]

14.12 Our consideration of remedies for the overlapping rail flows in this case follows the following approach:

(a) Assessment of the effectiveness of the structural and the behavioural remedies options identified in our Remedies Notice.

(b) Assessment and conclusion on the effectiveness of the proposed remedies.

(c) RCBs.

(d) Assessment of the proportionality of the proposed remedies.

(e) Approach to implementation and monitoring.

(f) Decision on the choice of remedy.

Remedy options identified in the Remedies Notice

14.13 In this section we first set out the various remedy options in relation to overlapping rail flows that we have received evidence on and considered.

Structural remedy option

14.14 In the Remedies Notice, we stated that for rail operations, a structural remedy is likely to be effective in order to remedy the SLCs.[379]

14.15 However, the Remedies Notice also noted that, given the small proportion of problematic flows, we would expect that the relevant costs of any feasible structural remedy far exceed the scale of the adverse effects of the SLC in this case.

[377] *CC8: Merger Remedies guidance*, paragraph 1.10.
[378] *CC8: Merger Remedies guidance*, paragraph 1.9.
[379] Arriva/Northern Remedies Notice, paragraph 23.

Behavioural remedy options

14.16 We identified behavioural remedies, which were considered equally effective as a structural remedy approach to address the SLC and its resulting adverse effects without creating significant distortions in market outcomes.

14.17 We considered a restriction on fare increases, whereby unregulated fares on the affected flows may only be increased up to a certain measure. Given that the majority of rail revenues on the relevant flows are based on regulated fares, we proposed that any control on fares should be linked to permitted increases in regulated and dedicated fares on other routes, or to regulated fares on the same flow.

Other potential remedies

14.18 In the Remedies Notice, we invited comments on the proposed remedies and or a combination of them and any other remedies. In addition we requested views on any RCBs.

Our assessment of the remedy options

14.19 In this section, we assess first the effectiveness and design of the remedy options, before we turn to assess the proportionality and RCBs of the proposed remedy options. We then conclude on the proposed remedy option and discuss its implementation.

Structural remedy option

The views of the Parties

14.20 The Parties told us that the costs of any feasible structural remedies would significantly outweigh the scale of the adverse effects of any SLC we may find. This is particularly due to the small proportion of overlapping flows which raised concerns.[380]

14.21 The Parties said that the use of structural remedies would therefore be 'entirely disproportionate', particularly given that behavioural remedies would be equally effective.[381]

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[380] Arriva's response to the Remedies Notice, pp9–10.
[381] Arriva's response to the Remedies Notice, pp9–10.

Third parties' views

14.22 Stagecoach told us that, while a structural remedy for rail operations was likely to be effective, it was unnecessary given the small number of flows affected relative to the total number of flows on the franchise.[382]

CMA assessment of the structural remedy option

14.23 As stated in the Remedies Notice, we consider that a structural remedy would be effective in addressing the SLCs for rail operations.[383] Splitting the ownership of services on the overlapping flows would restore the pre-Merger conditions, and the corresponding pre-Merger levels of rivalry.

14.24 However, in the particular circumstances of this case such a remedy design would be likely to affect a large number of flows (and potentially routes) including those on which no SLCs have been found.

14.25 Given the small proportion of flows identified as raising competition concerns, and possible issues that have been identified in this case with targeting a structural approach to address those problematic overlapping flows, we conclude that the relevant costs of any feasible structural remedy would exceed the scale of the adverse effects of the SLCs in this case. As discussed in paragraphs 14.20 to 14.22, the submissions that we received agreed with our position that structural remedies are not appropriate in this case.

Behavioural remedy option – 'fare increase control'

The views of the Parties

14.26 The Parties provided comments on the 'fare increase control' behavioural remedy we proposed as follows:

(a) The scope of the remedy, including the need to provide for 'a control on service provision'.

(b) The design of any remedy.

(c) The approach to monitoring and compliance.

[382] Stagecoach response to the provisional findings.
[383] Arriva/Northern Remedies Notice, paragraphs 22 & 23.

The scope of the remedy

14.27 The Parties told us that a restriction on certain ticket fare increases for the overlapping flows on which an SLC had been found could be an effective and proportionate way of addressing our concerns.[384]

14.28 The Parties argued that no other forms of remedy would be necessary, and it would be inappropriate to apply a broader remedy.[385]

14.29 The Parties told us that any remedies in place should be time-limited to the concurrent ownership of both overlapping rail services. Here, this would either be the length of the Northern Franchise or the overlapping franchises (whichever is shorter).[386]

14.30 The Parties further stated that the remedy should allow for Arriva to seek our consent to fare increases which were in principle prevented by the remedy, in order to cater for unforeseen circumstances.[387]

14.31 The Parties emphasised that any remedies should not conflict with the terms of Arriva's franchise agreements (eg the Northern Franchise's fare rationalisation plan), any additional obligations mandated by the DfT or Rail North, or any future regulatory initiatives.[388] In case of potential conflicts Arriva suggested that the remedies should not apply to the extent of the conflict.[389]

The design of the remedy

14.32 The Parties told us that any remedy should be applied to the following types of fare:

(a) Northern Franchise fares only (ie not to the fares of the overlapping Arriva service).[390]

(b) Fares for the overlapping flow only, and not the entire route or network tickets.[391]

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[384] Arriva's response to the Remedies Notice, pp2 & 5; Arriva response to remedies working paper, paragraph 2.2.
[385] Arriva's response to the Remedies Notice, p5.
[386] Note that if Arriva's franchises are extended (eg by Direct Awards), then this ownership would also extend. See also Arriva's response to the Remedies Notice, pp 2, 6 & 7.
[387] Arriva's response to the Remedies Notice, pp2 & 6.
[388] Arriva's response to the Remedies Notice, pp9 & 11.
[389] Arriva's response to the Remedies Notice, p6.
[390] Arriva's response to the Remedies Notice, p9.
[391] Arriva's response to the Remedies Notice, p8.

(c) Specific unregulated and dedicated fares only (ie excluding inter-available and routed fares).[392]

14.33 The Parties' reasoning for only applying the remedy to Northern Franchise services on the flows was that:[393]

(a) the SLCs were a result of Arriva's acquisition of the Northern Franchise, and so it was therefore appropriate that any remedies were confined to fares on the Northern Franchise only;

(b) the practical reality was that unregulated fares were priced in a cluster around regulated fares in order to create a coherent fare structure. All inter-available fares included some fare types which were regulated, and therefore CrossCountry and ATW fares would continue to be constrained by reference to the relevant regulated fares;

(c) a close review of the SLC flows showed that they did not compete or constrain each other; and

(d) even if the overlapping services did act as a constraint on one another, directly controlling the Northern Franchise's fares would act in turn to limit the fares on the overlapping Arriva service.

14.34 The Parties stated that restricting increases in fares by reference to increases in regulated fares could represent a simple way of implementing a behavioural remedy in this case.[394] Currently, the Northern Franchise agreement sets this at RPI+0% until 2020, although the Parties expect that it may be amended after that time.[395]

14.35 The Parties clarified that the approach should mirror how the Secretary of State controlled regulated fares in order to ensure proportionality, and minimise unnecessary complexity (and the associated costs).[396] In particular, this would include:

(a) Any 'headroom' in each year (ie any permitted fare increases which were not used) should be rolled forward and accumulated for subsequent years.[397]

[392] Arriva's response to the Remedies Notice, pp6 & 8.
[393] Arriva's response to the remedies working paper, paragraphs 2.7.1–2.7.4.
[394] Arriva's response to the Remedies Notice, p5.
[395] Arriva's response to the Remedies Notice, p7.
[396] Arriva response to remedies working paper, paragraph 2.3.
[397] Arriva response to remedies working paper, paragraph 2.3.1.

(b) Regulated fares had a mechanism for 'rounding up' to a set value provided there was sufficient headroom within the overall basket.[398]

14.36 The Parties told us that other potential benchmarks, such as other flows on the same route, or flows on a comparable route, could, in the rail context, introduce additional complexity into any remedy.[399]

14.37 The Parties also said that, due to their desire for simplicity, they would prefer that any fare restriction remedies be applied to individual fares.[400]

14.38 In respect of volume-controlled fares, the Parties noted that only a very small number of advance fares were available on the SLC flows prior to the Merger.[401] Furthermore, only two of these flows offered advance fares on both the Northern Franchise and the overlapping Arriva rail service prior to the Merger.[402] Therefore, the Parties highlighted the risk that any controls on these advance fares may be disproportionate.[403]

14.39 The Parties stated that it would be appropriate to align any reporting mechanism with the rail industry fare-setting periods which occurred three times per year.[404]

The Parties' approach to monitoring and compliance

14.40 The Parties stated that the simplicity and cost-effectiveness of monitoring the remedies are integral to their proportionality.[405] They also noted that any restrictions should be designed to make them workable in practice.[406] They considered that their proposals were proportionate and relatively simple to monitor, and as such a self-reporting mechanism would be efficient and appropriate, particularly due to:[407]

(a) the limited number of flows in respect of which the CMA has found an SLC;

(b) the nature of the CMA's concerns; and

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398 Arriva response to remedies working paper, paragraph 2.3.2.
399 Arriva's response to the Remedies Notice, p7.
400 Arriva response to the remedies working paper, paragraph 2.6.
401 Arriva response to the remedies working paper, paragraph 2.9.1; where advanced tickets make up a subset of the dedicated ticket figures quoted.
402 Leeds–Sheffield and Wakefield–Sheffield; Arriva response to the remedies working paper, paragraph 2.9.2.
403 Arriva response to the remedies working paper, paragraph 2.9.
404 Arriva's response to the Remedies Notice, p6.
405 Arriva's response to the Remedies Notice, pp2 & 6.
406 Arriva's response to the Remedies Notice, p2.
407 Arriva's response to the Remedies Notice, pp2 & 6.

(c) the nature of the proposed remedies.

14.41 The Parties noted that this was consistent with the CMA's recent approach with regard to *Inter City Railways/InterCity East Coast franchise* where no Monitoring Trustee was required.[408]

14.42 The Parties therefore considered that requiring a Monitoring Trustee in these cases would be disproportionate, given the limited number of SLC flows and the simplicity of the remedies.[409]

14.43 The Parties also said that they should be able to seek a review of the remedies, where changes in circumstances meant that they were no longer achieving their intended objectives.[410]

Third parties' views

14.44 Stagecoach told us that behavioural remedies would be as effective as structural remedies in addressing the SLCs identified.[411]

CMA assessment of the options for a behavioural remedy

14.45 As noted in paragraph 14.8 above, behavioural remedies can be difficult to implement effectively. We therefore consider in more detail in this section how a behavioural remedy can be designed and implemented in this case in order to both achieve the benefits of a behavioural remedy over a structural remedy, and also to mitigate any risks associated with behavioural remedies.

14.46 The objective of a behavioural remedy in this case is to constrain fare increases on the SLC overlapping flows on the relevant routes we have identified. This is consistent with our conclusions, where we identify that on the three overlapping rail flows on which we find an SLC, the Parties have the ability and incentive to increase some unregulated fares (see Section 10 above).

14.47 In the Remedies Notice we proposed that a fare increase control would be an effective behavioural remedy in this case. We received no submissions in response to the Remedies Notice which indicated that any alternative behavioural remedies would be effective. The comments we received

[408] Arriva response to the remedies working paper, paragraph 2.12.
[409] Arriva response to the remedies working paper, paragraph 2.13.
[410] Arriva's response to the Remedies Notice, pp2 & 6.
[411] Stagecoach response to the provisional findings.

indicated that a fare increase control would be practicable and could be designed in such a way as to be effective.

14.48 We focus in this section on the design issues associated with the implementation of a fare increase control. The use of a fare increase control requires a number of decisions to be made:

(a) What is to be remedied, ie what is the scope of the fare increase control?

(b) What is the appropriate measure to be used in any fare increase control, and how can this be documented in order to be effective and practical to implement?

(c) How will the fare increase control be monitored, ie what evidence would need to be provided, and are there any implementation issues with measuring and demonstrating compliance?

14.49 We consider the design of the fare control, including the Parties' comments, as follows:

(a) **Scope**: which services would be subject to a fare increase control, and whether any fare control should be applied to individual flows or to an entire route.

(b) **Structure**: whether the fare increase control would apply to each individual fare type, or to the average increase across a group of fares, which we characterise as a 'fare basket'.

(c) **Form**: what measure would be appropriate to calculate the cap for fare increases, and how this will be defined within the remedy.

14.50 In designing a fare increase control, we consider whether there is a need for associated controls to ensure that it is effective, such as a control on the mix of different ticket types available.

- *Scope*

14.51 In assessing the scope of the fare increase control remedy, we consider:

(a) whether to include all relevant overlapping rail services (ie both the overlapping Arriva and Northern Franchise services);

(b) what fare types should be included; and

(c) how to define the relevant services, including whether any other flows on the relevant routes should be included within the remedy.

14.52 As described in Section 10 above, we consider that Arriva's overlapping rail services acted as a competitive constraint on each other pre-Merger. We also find that there are sufficient unregulated fares on the relevant flows that Arriva would have the ability and incentive to increase such unregulated fares on either the Northern Franchise or the overlapping Arriva rail service. Our analysis indicates that Arriva would have the scope to increase a number of these fares without breaching any indirect constraints from regulated fares on the same flow.

14.53 In cases where Arriva has the ability to increase unregulated fares on the Northern Franchise service and the overlapping rail service, then applying a fare increase control to Northern Franchise fares alone may be insufficient to retain the pre-Merger incentives on the overlapping rail service.

14.54 Table 37 below provides a simplified, illustrative example of this. It provides an example where, pre-Merger, Arriva would have no incentive to increase fares on its overlapping rail service, but post-Merger it is likely to have this incentive due to the recapture of some of the switching customers:

Table 37: Illustrative effect of a fare increase on overlapping rail services, and the associated incentives on a joint-owner

	Pre fare change		*Post fare change*	
	Northern	*Overlapping Arriva service*	*Northern*	*Overlapping Arriva service*
Fare	£1.00	£3.00	£1.00	£5.00
Number of customers	100	50	110	30
Revenue	£100	£150	£110	£150
Revenue for Arriva pre-Merger	£0	£150	£0	£150
Revenue for Arriva post-Merger	£100	£150	£110	£150

Source: CMA analysis.
Note: The calculations assume that Arriva has priced its unregulated tickets efficiently and that any price increases would result in (at best) an equivalent reduction in customer numbers such that revenue remains unchanged. Some of these customers will be recaptured on the overlapping service.

14.55 Therefore, we consider that any behavioural remedy to control fare increases should be applied to the relevant Northern Franchise services and also the alternative Arriva services operating on the flow (ie ATW or CrossCountry). This would restrict the ability for Arriva to increase fares on either service.

14.56 The relevant rail services have both regulated fares and unregulated fares. It is unnecessary to impose additional controls on already regulated fares. Therefore, the remedy is only to be applied to unregulated fares.

14.57 We identify SLCs based on an assessment of the ability and incentive for Arriva to increase fares on specific flows, based on an identification of fares which apply to individual flows (see Section 10 above). Therefore, it is appropriate and practicable to control the flow-level fares directly.

14.58 On the basis that the fares on the flow can be directly targeted by the remedy, it is not necessary to control any other fares (eg other parts of the route, or network tickets).

14.59 In summary, our view is that any remedy should apply:

(a) to unregulated fares over which Arriva has the ability to increase fares;

(b) to relevant fares on both the Northern Franchise and the overlapping Arriva rail services; and

(c) only to the relevant overlapping rail flows.

- *The structure of remedies*

14.60 Based on the scope of the fare increase control defined above, the remedy for each flow includes a control on the level of fares across a group of unregulated fares. When setting a control which applies to a number of fares on a flow, there are two broad options; we could:[412]

(a) cap each individual fare directly; or

(b) cap the average increase across a group of fares (referred to below as a 'fare basket').

14.61 An illustrative example of the effects of this is shown in Table 38, based on a fare increase of 10% in a year. This is on the basis that one fare ('Fare 2') is more heavily used and therefore should have a greater weight in assessing the average fare increase in any 'basket' of fares including each of the four fares (Fare 1 to Fare 4):[413]

[412] The Northern Franchise agreement currently includes controls on both an aggregated basket (Schedule 5.4), and each individual fares (Schedule 5.5) due to the previous application of 'flex'.
[413] The illustrative figures used in this example do not represent a real fare structure, and the fare rise assumed is chosen purely as a demonstrative example of the effects.

Table 38: Illustrative examples of 10% fare increase with changes to individual fares

	Current fare (£)	Basket weighting (%)	Scenario 1 New fare (£)	Scenario 1 Increase (%)	Scenario 2 New fare (£)	Scenario 2 Increase (%)	Scenario 3 New fare (£)	Scenario 3 Increase (%)
Fare 1	1.00	10	1.10	10	1.20	20	3.00	200
Fare 2	3.00	70	3.30	10	3.15	5	3.00	0
Fare 3	5.00	10	5.50	10	6.50	30	8.35	67
Fare 4	10.00	10	11.00	10	10.95	9.5	8.35	–17
Basket	**3.70**	**100**	**4.07**	**10**	**4.07**	**10**	**4.07**	**10**

Source: CMA analysis.

14.62 In case of a cap set directly on each individual fare, Arriva could increase fares up to the level shown in Scenario 1. If, however, the average fare across the 'fare basket' was capped at 10%, Arriva would be able to adopt the fares shown in any of the scenarios, as well as numerous other combinations of increases.

14.63 A summary of the pros and cons of each approach is also shown in Table 39 below, with more detail in the subsequent paragraphs.

Table 39: Summary of pros and cons of individual vs basket fare caps

Individual		*Basket approach*
Pros		**Cons**
Simpler design	*vs*	More complex to design
Easier to maintain	*vs*	Harder to maintain
Transparent	*vs*	Limitations on data on use of fare types on relevant flows
Ex-ante, data-light	*vs*	May be data-heavy to show compliance
Cons		**Pros**
Restricts Arriva's commercial flexibility	*vs*	Provides Arriva greater commercial flexibility
Less suitable for some fare types (eg advance)	*vs*	Applicable to all fares types

Source: CMA analysis.

14.64 Capping each fare directly is simpler and clearer, but provides Arriva with less flexibility in making commercial decisions. This commercial flexibility would be particularly important if Arriva often adjusted its fares structure (ie the relative gaps between different fares).

14.65 Designing a basket of fares provides Arriva greater flexibility, but adds more complexity to the remedy, and requires a number of additional design considerations which will require subsequent monitoring, as well as possible variation at some point in the future, including the following:

(a) The number of fare baskets, and which fares are included in each of these baskets (eg whether season and single fares should be included in the same basket).

(b) How to implement weightings of each fare within the basket (eg identification of a suitable measure of volumes).

(c) Ongoing monitoring of volumes/weightings (eg possibility of *ex post* testing for compliance).

(d) How the introduction of new fares would be treated.

(e) Whether there should be any restrictions on individual fares as a backstop (eg a maximum percentage increase for a year).

14.66 We note that the setting of regulated fares by the DfT has recently changed to reduce the level of flexibility which franchisees have in setting individual fares. This has resulted in each of the Northern Franchise's regulated rail fares to be set to increase by a maximum of RPI+0%, with no commercial flexibility to adjust individual regulated fares.[414]

14.67 In this context, we consider that the application of a remedy to individual fares would be effective and proportionate. This is the approach currently used for regulated fares in the rail industry in general.

14.68 The Parties also support this approach due to its relative simplicity of implementation and monitoring (see paragraph 14.37), and as such, it is not expected to overly restrict Arriva's commercial flexibility.

- *The form of remedies*

14.69 This section considers the 'form' of the remedies, namely how the maximum increase in fares each year will be defined. We consider three approaches to the form of any fare control. Fares could be tied to either:

(a) a general level of inflation (eg CPI, or RPI); or

(b) an industry-specific metric (eg fuel prices, a composite index of costs, or a composite index of fares); or

(c) one or more comparator flows/routes (eg a competitive flow on the same route, or similar services).

14.70 We describe these options in more detail below, and then assess the options in the context of the overlapping rail services on which we have found SLCs.

  - *General level of inflation*

14.71 The use of a general measure of inflation will provide an economy-wide measure of changes in costs over the period. This is a transparent, well

[414] We understand that this will continue for at least five years (see paragraphs 8.5–8.9).

understood, and easily-measured metric. This is the approach that rail franchises adopt for controlling regulated fares.

14.72 However, there is a risk that the specific cost base for the identified SLC areas would not closely match these broader changes. In cases where the metric underestimates cost inflation, Arriva would be unable to recover its full costs which could be disproportionate; in cases where the metric overestimates cost inflation, Arriva would be able to raise its fares above the competitive level.

- *Industry specific metric*

14.73 Use of an industry-specific level of inflation would more accurately represent the specific costs for the mode in question. This is particularly true where a pre-existing standard is commonly adopted (eg to allow for changes in fares during competitive tender processes), or a large part of the cost base can be easily tracked (eg fuel prices).

14.74 These industry-specific metrics can be either based on cost estimates, or on price estimates.

- *Comparator services*

14.75 Using a comparator service (or series of comparator services) where there are no SLCs resulting from the Merger may provide an accurate representation of pricing in similar markets, and could be the best representation of changes which would occur in the absence of the Merger.

14.76 This approach requires selecting and maintaining a representative comparator series throughout the period in question. This will often be difficult, and introduce a risk of error if the incentives to increase fares on the SLC flows and other flows may be different.

- *Our assessment of the different options on the form of remedies*

14.77 Regulated franchised rail fares are already restricted as part of the franchise agreement. A similar approach could be adopted to the unregulated fares subject to any fare increase control. This would result in the unregulated fares moving in line with the industry.

14.78 Currently, regulated fares on rail franchises in England and Wales are capped at RPI+0%.[415] The '+0%' figure may change in the future, and is specified in the relevant franchise agreements for the operators.

14.79 It is, therefore, possible to link any remedy to the figure specified in the franchise agreement (including any subsequent direct awards to Arriva to extend the existing franchise agreements).[416] This will ensure that the fares subject to the remedy are exposed to the same fares regulation as other regulated fares under which the TOC operates.

14.80 In effect, this could be used to convert fares on the SLC flows to being 'regulated' under the standard approach used for rail franchise fares.

14.81 This would result in the maximum fare for any given year being primarily specified by a formula. We consider that to be consistent with the franchise agreement, the formula would be:[417]

$$F_{i,j,t} = F_{i,j,t-1} * (RPI_t + \frac{k_t}{100})$$

Where:

i is the specific flow;

j is the specific fare;

t is the year;

$F_{i,j,0}$ is the pre-Merger fare;

$F_{i,j,t}$ is the maximum fare allowed;

RPI_t is equal to the Retail Prices Index for the July of the calendar year preceding that fare year divided by the Retail Prices Index for the July of the calendar year one year prior to that; and

k_t has the value of 'k' for the year, as specified in the regulation of fares schedule for the TOC's relevant franchise agreement,[418] which may be varied from time to time by the DfT.

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415 DfT press release (25 November 2015): Department for Transport's settlement at the Spending Review 2015.
416 For example, the DfT recently announced that Arriva would continue to operate the CrossCountry franchise under a Direct Award until October 2019. DfT news story (29 September 2016): Better journeys for passengers on the Cross Country network.
417 The Northern Franchise agreement control on individual fares (Schedule 5.5) currently includes a provision to allow for annual increases of 20 pence when the calculated increase is smaller than this.
418 Schedule 5 for the Northern Franchise.

- *Additional controls*

14.82 In paragraph 8.64 above, we conclude that Arriva does not have the ability and incentive to degrade non-price aspects of its rail service offering. We therefore only consider further constraints to the extent that they are necessary to ensure that the fare increase control remedies proposed above remain effective.

  - *Mix of available fare types*

14.83 If controls on individual fares are specified in advance, and if Arriva is able to adjust the availability of these, then the actual fares which customers would have to pay could still be increased. For example, if Arriva removed all advance fares from a train, the effective fare to passengers would be increased.

14.84 This concern only applies to advance fares as these are the only type of fare for which Arriva can control the volumes available.

14.85 The Parties told us that fewer than [✂] advance fares were sold per eligible train on the Leeds to Sheffield and Wakefield to Sheffield flows.[419] However, we consider that dedicated advance fares represent a material number of tickets sold per annum on these flows ([✂] on the Leeds to Sheffield flow and [✂] on the Wakefield to Sheffield flow).

14.86 As concluded in paragraph 10.84 for the Leeds to Sheffield flow and in paragraph 10.119 for the Wakefield to Sheffield flow, Arriva has the ability and incentive to increase the price of advance fares, limit the volume of advance fares and/or withdraw advance fares.[420]

14.87 Therefore, Arriva will also be required, together with the fare increase control remedy, to maintain the availability of the advance fares offered with regard to the Leeds to Sheffield and Wakefield to Sheffield flows.

14.88 This would be an effective and proportionate remedy to address the SLCs identified in Section 10.

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419 On Leeds to Sheffield flow, the Parties told us that [✂] and [✂] advance fares were sold per train on the Northern Franchise and CrossCountry, respectively. On the Wakefield to Sheffield flow, the Parties told us that [✂] and [✂] advance fares were sold per train on Northern Franchise and CrossCountry, respectively. [✂]
420 We do not find an SLC in relation to the sale of advance tickets on the Chester to Manchester flow (see paragraph 10.156). The advance tickets sold by the Northern Franchise on the Chester to Manchester flow were introduced post-Merger and ATW does not offer advance tickets on this flow.

14.89 We note that Arriva has provided evidence that it intends to increase the number of advance fares sold.[421] This intention is further considered in Arriva's modelling in support of its bid for the Northern Franchise which includes increasing the number of advance fares sold across its network from around [✄] per year to around [✄] million by year nine, a change of over [✄] times.[422] Arriva will not be restricted in terms of the amount of advance fares sold.

14.90 We have therefore decided to require Arriva to maintain the availability of advance fares in order ensure that passengers are protected in the event of any negative change to the Parties' stated intentions and will ask Arriva to confirm this as part of its compliance monitoring.

- *Conclusion on the effectiveness of the remedies assessed*

14.91 We consider that a well-designed behavioural remedy would be equally effective as a structural remedy in addressing the SLCs identified and their resulting adverse effects and will have a lower associated cost compared with a structural remedy in this case.

14.92 Accordingly, we conclude on a choice of a behavioural remedy that is effective in addressing the SLCs and their resulting adverse effects and that is the least costly. This consists of a behavioural remedy which controls fare increases on the following fare types:

(a) both the Northern Franchise and the overlapping Arriva rail services;

(b) fares with regard to the overlapping flow only, but not the entire route or network tickets; and

(c) unregulated fares over which Arriva has the ability to increase fares.

14.93 Each individual fare type will be capped to an increase of RPI+X% a year, with reference to the specific figure set within the relevant franchise agreement (eg RPI+0% for the Northern Franchise services currently).

14.94 To ensure this fare increase control is effective, Arriva will also be required to maintain the availability of advance tickets on these flows.

[421] [✄]
[422] [✄]

- *RCBs*

14.95 In considering its choice of remedies, the CMA will normally take RCBs into account, as permitted by the Act under section 41(5). RCBs that will be forgone due to the implementation of a particular remedy may be considered as costs of that remedy.[423]

- *The views of the Parties*

14.96 The Parties said that the award of the Northern Franchise would result in 'considerable benefits for passengers', and provided examples which included the level of investment and planned service improvements. Specifically, the Parties said that '[a]bsent the merger, such benefits for consumers could only have been achieved in a less economically advantageous way, if at all'.[424]

14.97 In response to our Remedies Notice, the Parties told us that the award of the Northern Franchise to Arriva would be transformative for rail passenger services in large parts of the North of England. In particular, they highlighted the £1 billion of investment which it would make to provide faster, better quality services.[425]

14.98 The Northern Franchise was awarded to Arriva following a competitive bidding process, and so Arriva's bid was chosen as it offered the best outcome from that process.[426]

14.99 The Parties also quoted a statement from the DfT at the time, that Arriva 'went far beyond our requirements with exciting ambitious plans that will make a real difference to customers and … will help the region to realise its full economic potential.'[427]

- *Third parties' views*

14.100 During the Merger inquiry, a number of third parties stated that if the Merger resulted in improved integration of transport modes, this could provide benefits for customers.[428]

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[423] *CC8: Merger Remedies guidance*, paragraph 1.15.
[424] For example, in Arriva's initial submission paragraphs 10.2 & 10.3.
[425] Arriva's response to the Remedies Notice, p10.
[426] Arriva's response to the Remedies Notice, p11.
[427] Arriva's response to the Remedies Notice, pp10 & 11.
[428] For example, West Yorkshire Combined Authority hearing summary, paragraph 43; and Urban Transport Group hearing summary, paragraph 16.

14.101 No third parties made submissions regarding the scale of any RCBs in response to our provisional findings or Remedies Notice.

- *CMA assessment*

14.102 We consider the potential passenger benefits identified by the Parties, which may constitute RCBs, would relate to the award of the Northern Franchise to Arriva. In this case, we consider that any such RCBs would be preserved under the proposed remedy. We therefore do not include any quantification of RCBs within our assessment.

- *Proportionality of the proposed remedy*

14.103 We will seek to ensure that no remedy is disproportionate in relation to the SLCs and its adverse effects.[429] In making the assessment of proportionality, it is necessary to consider the costs of a remedy and how intrusive the remedy would be. When faced with a choice of possible remedies, we will choose the least costly remedy or package of remedies.

14.104 The proposed remedy is designed as pragmatically and practically as possible, taking into account Arriva's evidence over its business approach and processes. It is also aimed at affecting the smallest increments of the business as possible (eg individual flows).

14.105 In coming to our final decision on remedies, we ensure that the effective remedy is also proportionate in remedying the SLCs. This can include an assessment of the practicability of monitoring and demonstrating compliance with any remedies which are more complex.

Implementation of the fare increase control remedy

- *Monitoring approach*

14.106 Throughout the remedies process, the Parties expressed a strong preference for adopting a simple and practical approach, partly on the basis that this would minimise the complexity of ongoing compliance.

14.107 The proposed remedy is not overly complex, and applies to a limited number of flows. Moreover, the Parties already operate a very similar compliance regime for their regulated fares, reporting to the DfT three times per year. In these circumstances, it is appropriate to align our monitoring approach with

[429] *CC8: Merger Remedies guidance*, paragraph 1.9.

the existing process in order to benefit from existing practices, and to minimise any associated costs.

14.108 The Parties will, therefore, be required to provide us with periodic compliance reports, with sufficient data to monitor compliance effectively.

- *Duration of the remedy*

14.109 The Northern Franchise award has a duration of nine years with the possibility of extending by a further year, after which time a new competitive tender is expected to be undertaken by the DfT. At that point, Arriva would cede ownership of the Northern Franchise, and none of the Merger-related overlaps would remain. In the situation where Arriva was awarded the franchise again, its joint ownership (and any overlaps) would be reconsidered as part of the Merger framework at the time. Therefore, remedy would lapse at the time of the next award of the Northern Franchise.[430]

14.110 Furthermore, Arriva's other rail franchises overlapping with the Northern Franchise are expected be retendered within the next five years, and it is not clear whether Arriva will retain these franchises. In the event of Arriva losing the overlapping franchise, a competitor would operate the overlapping services, and the pre-Merger competitive environment would be restored.

14.111 The remedy will, therefore, remain in place for as long as Arriva operates both the Northern Franchise and the overlapping franchises, unless a successful application is made under the Act for variation or release.

14.112 We further note that we are required under the Act to monitor and keep under review the effectiveness of any undertakings and to consider from time to time whether they remain appropriate.

Decision on the choice of remedy: conclusion

14.113 We conclude that this fare increase control behavioural remedy is an effective and proportionate remedy to address the SLCs and the resulting adverse effects, and we therefore intend to implement this by agreed undertakings.[431]

14.114 In summary, the remedy would require applying a fare increase control to:

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[430] Arriva informed us that direct awards were considered separate contracts, and so the remedy would need to be designed to endure if a direct award was made for the Northern Franchise or one of the overlapping franchises.

[431] If it is not possible to successfully negotiate such undertakings within a reasonable time period, we would issue an order.

(a) both the Northern Franchise and the overlapping Arriva rail services;

(b) fares on the overlapping rail flows only, but not the entire route or network tickets; and

(c) all unregulated fares over which Arriva has the ability to increase fares.

14.115 This control would align with the existing approach to regulated fares in the rail industry (which currently restricts fare increases to RPI+0% each year), including the ongoing compliance process which does not require a Monitoring Trustee.

14.116 The remedy would remain in place on the relevant flows for as long as Arriva continues to operate both the Northern Franchise and the overlapping franchises, unless varied or released.