

Competition in passenger rail services in Great Britain

A discussion document for
consultation

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Contents

	<i>Page</i>
1. Introduction	4
Our goals	5
Competition in passenger rail services in Great Britain.....	6
Putting the passenger first	8
Funding Great Britain’s passenger rail services – a complex private/state mix ..	10
The purpose of this discussion document.....	11
Protecting investment in the network and socially valuable services.....	12
A ‘level playing field’	13
Viability	14
Safeguarding existing franchisees’ rights	14
Timing and planning	14
Risks and benefits	14
Discussion and consultation	15
2. Context: industry background	16
Structure of the rail sector in Great Britain	16
The privatisation of British Rail	16
Management of the network after privatisation	18
The development of on-rail competition since privatisation	22
The franchisees’ finances.....	29
Freight operating companies	33
Rolling stock leasing companies.....	33
The role of government	34
Funding of the rail industry.....	37
The rail industry’s income and expenditure	37
EU legislation.....	45
Background	45
Proposed Fourth Railway Package	46
3. On-rail competition in the current framework	49
The current extent of on-rail competition.....	49
Potential for greater on-rail competition – network capacity and technology	51
Enhancements in the 2014–2019 Control Period	51
Longer-term enhancements.....	55
4. Evidence of potential passenger benefits from greater on-rail competition.....	57
Introduction	57
The Great Britain rail freight sector	59
Competition between freight operators.....	60
The efficiency of the rail freight sector	60
The experience of EU airline deregulation	63
Dynamic competition: the Gatwick Airport example.....	64
On-rail competition in Great Britain	68
Competition between open access operators and franchisees	69
Overlapping and parallel franchises.....	76
Changes to the level of franchise overlap.....	78
On-rail competition in other European countries	81
Introduction.....	81
Overview of open access competition and market structure in each country	83
Benefits of on-rail competition in Europe	88

Differences between open access competition in Great Britain and other European countries	91
On-rail competition from 'no frills' services	95
5. Evidence of efficiency gains from greater on-rail competition	97
Efficiencies in train operations	97
Introduction.....	97
Estimating efficiency.....	98
Efficiency of open access operators	99
Sources of efficiency at open access operators	101
Upstream efficiencies.....	103
Evidence from open access operators and competing franchisees	104
Evidence from the rail freight sector	105
Capacity expansion at Heathrow Airport	106
Airport management	106
Scottish water sector	107
6. The feasibility of greater on-rail competition: Obstacles and opportunities	109
Introduction	109
Scarcity problems and the vertical structure of the market: split between train and track	109
Access to network infrastructure.....	110
Access to rolling stock	112
Network capacity and system operation activities.....	114
Network capacity identification	114
Operational issues.....	117
Funding the network and unprofitable 'public service' operators	123
Introduction: loss-making services and their funding mechanism.....	123
The impact of on-rail competition on government funds	125
Fixed access charges and the network grant	129
Franchise scope and service specification	131
Potential adverse effects of increased on-rail competition	133
Interavailability of tickets.....	133
'Sunk costs'	134
Possible obstacles identified from experience gained in other European countries	136
Sustainability	136
Impact on public funds.....	138
7. Conclusions: options for reform	139
Option 1 – existing market structure, but significantly increased open access operations	141
Advantages.....	144
Disadvantages.....	145
Option 2 – two franchisees for each franchise	146
Advantages.....	148
Disadvantages.....	149
Option 3 – more overlapping franchises	149
Advantages.....	150
Disadvantages.....	151
Option 4 – licensing multiple operators, subject to conditions (including public service obligations).....	152
Advantages.....	155
Disadvantages.....	156

Consultation.....	156
Detailed specification of operators' obligations.....	157
Reforming the structure of access charges	157
Network Rail's incentives as system operator	160
Smart ticketing.....	160

Appendices

- A: Map of train operators
- B: List of open access proposals submitted to the Office of Rail and Road from 2000 to 2015
- C: Overlapping and parallel franchises

1. Introduction

- 1.1 Great Britain's railway sector has undergone a remarkable renaissance. In the immediate post-war period, there was a sharp decline in rail usage: the number of rail passenger journeys per year in Great Britain, which had been about 1 billion in 1950, had fallen to barely over 600 million by the mid-1980s. Since the mid-1990s, there has been a steady rise, and by 2013–2014, over 1.6 billion rail passenger journeys were being made annually in Great Britain.¹
- 1.2 Passenger satisfaction has also improved in recent years. The National Rail Passenger Survey, conducted by Transport Focus, shows that passenger satisfaction improved from an overall satisfaction rating of 72% in spring 2002 to a rating of 80% in spring 2015.²
- 1.3 This seems to suggest that the arrangements for passenger rail services in Great Britain in place since the mid-1990s have broadly yielded successful outcomes, in spite of well-known difficulties such as the collapse of Railtrack in 2001–2002, the failure of the private sector East Coast franchisee in 2009 (resulting in a state-owned operator of last resort running the service for the subsequent five years) and the failure of the West Coast franchise letting competition in 2012.
- 1.4 As the UK's principal competition authority, the Competition and Markets Authority (CMA) is interested in exploring the extent to which this broad success story in an important industry for the country is attributable to competition in passenger rail services, and the extent to which that success might be enhanced – to the benefit of passengers, the industry and the country as a whole – by introducing a greater degree of competition.
- 1.5 The CMA's statutory duty is to promote competition for the benefit of consumers.³ In addition, when the CMA was established, the government announced, in a 'strategic steer' to the CMA, that it saw the CMA 'playing a key role in challenging Government where Government is creating barriers to competition'.⁴ The same point has been made in a new draft strategic steer which the government is publishing for consultation in July 2015.

¹ Department for Transport, Rail Executive, (October 2014), *Rail trends factsheet, Great Britain: 2014*.

² Office of Rail Regulation (April 2014), *Rail Passenger Satisfaction Benchmarking: Report on ONS Opinions and Lifestyle Survey*, paragraph 2.1 and Transport Focus (Spring 2015), *National Rail Passenger Survey*.

³ Enterprise and Regulatory Reform Act 2013 section 25(3).

⁴ *Strategic steer for the Competition and Markets Authority 2014-17*, paragraph 8 (Annex 1 to Department for Business, Innovation and Skills, *Competition regime: Response to consultation on statement of strategic priorities for the CMA*, October 2013).

Our goals

- 1.6 In issuing this discussion document, our objectives are to seek improvements in the railways in Great Britain and benefits for passengers and taxpayers, including by:
- securing better value-for-money – for passengers by way of downward pressure on fares, and for taxpayers through efficiencies that lead to lower operating costs of passenger train services;
 - enhancing service quality and encouraging innovation; and
 - unlocking efficiencies at the ‘upstream’ level of infrastructure operations/management, for example by giving Network Rail greater incentives to use capacity on the network more efficiently and to control costs.
- 1.7 Downward pressure on fares, upward pressure on service quality and innovation and greater efficiency are – in theory at least – benefits that competitive markets tend to deliver. As a competition authority, we wish to explore claims made in recent years⁵ (by regulators, think tanks and commentators) that, in Great Britain’s passenger rail sector, these objectives could be better achieved through greater competition between passenger train operators – so called ‘on-rail’ competition.
- 1.8 In assessing this, our approach has been that any recommendations to adapt the current industry framework for the future must be capable of being implemented:
- without disrupting the current and forthcoming rounds of franchise awards;
 - while maintaining the provision of socially valuable passenger rail services which may not be commercially viable;
 - without jeopardising current and future investment in the network; and
 - without any adverse operational impact.

⁵ See, for example: Martin Cave (CERRE) and Janet Wright (Indepen Consulting) (29 May 2010), *Options for increasing competition in the Great Britain rail market: on-rail competition on the passenger rail market and contestability in rail infrastructure investment – Final report to the Office of Rail Regulation*; Office of Rail Regulation (2011), *Consultation on the potential for increased on-rail competition*; Tony Lodge (March 2013), *Rail’s second chance: Putting competition back on track*, Centre for Policy Studies; and articles by Allister Heath, *Daily Telegraph*, 20 August 2014 and by Tony Lodge, *Daily Telegraph*, 28 August 2014.

- 1.9 Within this framework, we are seeking to assess whether greater on-rail competition is desirable – ie whether it could deliver incremental benefits over and above the existing model of competition ‘for’ the market.

Competition in passenger rail services in Great Britain

- 1.10 In terms of competition, the main features of the passenger rail sector in Great Britain, as currently configured, may be characterised as follows:

- Train services are provided to passengers by train operating companies (TOCs) – the vast majority of these passenger train operating services (representing some 99% of passenger miles) being provided under regional franchises awarded by the government for a specified period (typically around seven to 15 years), with a competitive bidding process for the award of each franchise.
- The national rail infrastructure (the track, bridges, depots and major rail termini) is provided by an infrastructure operator, Network Rail, which essentially has a monopoly, but which is separate from the TOCs. The TOCs need to apply for access to the track and other infrastructure, for which they pay ‘access charges’ which are regulated by an independent economic regulator of rail, now called the Office of Rail and Road (ORR).⁶
- Rolling stock is acquired by the TOCs, usually by way of lease, from private sector competing rolling stock companies, three of which (the ROSCOs) inherited the rolling stock of the pre-privatisation British Rail.

- 1.11 The competitive tendering of franchises is a form of competition ‘for’ the market in passenger rail services. There is also a small degree of competition ‘in’ the market – ie competition **between** train operators, also called ‘on-rail’ competition. This occurs in three ways:

- Overlapping franchises: where two or more franchisees operate on the same route, and therefore compete against each other for passengers on that route.
- Parallel franchises: where two or more franchisees operate services between the same city pairs, although on different routes, and so compete for passengers travelling between those cities. An example is travel

⁶ Use of the name, the ‘Office of Rail and Road’, as from 1 April 2015 reflects the new roads functions conferred on the regulator by the Infrastructure Act 2015. Previously, ORR was known as the ‘Office of Rail Regulation’.

between London and Birmingham, which is served by franchisees on the West Coast main line and on a different route by Chiltern Railways.

- ‘Open access operators’ (OAOs): these are operators of passenger services whose right to operate is derived not from a franchise awarded by the government, but from applying to, and being authorised by, ORR to have access to the network on certain routes for a specified time. There are currently just two OAOs, Grand Central (owned by Arriva UK, which is itself a subsidiary of the German national rail operator Deutsche Bahn, and which operates certain franchises) and First Hull Trains (a subsidiary of FirstGroup which also has franchise operations in Great Britain). 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. In the past, there had been other OAOs, and applications have recently been made to ORR for more substantial passenger services on intercity routes.

- 1.12 The extent of overlapping and parallel franchises has fallen in recent years, following a policy decision in 2001 by the then franchising authority, the Strategic Rail Authority, to reduce the number of franchises – a trend that has continued in recent years.
- 1.13 The scale of ‘open access’ operations is limited by the criteria by which ORR grants authorisation for them. These reflect a desire to prevent some of the dangers of competition in network industries that provide public services, including the risk of ‘free-riding’ on investment in the network infrastructure and the risk of ‘cream-skimming’ the more profitable services, making it harder to fund less profitable, but socially valuable ‘public service’ rail operations. Specifically, there is concern that the risk that competition from OAOs might pose to the revenue streams of franchisees could deter potential franchisees from bidding for franchises or could induce them to submit ‘lower’ bids (ie paying the government a lower premium or requiring from the government a greater subsidy), reducing the revenues available to the government for funding the network and for subsidising public service operations.
- 1.14 ORR needs to consider and achieve an appropriate balance between 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.⁷

- 1.15 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 30p of new revenue for every £1 abstracted from existing operators. Failure to meet the NPA test was a key reason that, in December 2014, ORR rejected an application by a proposed OAO owned by Alliance Rail Holdings (itself a subsidiary of Deutsche Bahn) to operate relatively substantial open access services on the West Coast main line.
- 1.16 There is also a degree of competition between passenger rail services and other modes of public transport. For example, passenger rail operations from London to cities in Scotland compete at least to some extent with air transport and with long-distance coach services.⁸
- 1.17 In contrast to passenger rail services, freight rail operations are entirely ‘open access’, with a number of private sector operators competing freely on the network.

Putting the passenger first

- 1.18 The improvements in Britain’s railways described above have, as noted, been achieved against the backdrop of a series of challenges, such as the Railtrack collapse, the 2009 East Coast franchisee failure, and the 2012 West Coast franchise competition failure.
- 1.19 In the face of these challenges, the authorities have had to ensure the stability of the system, including ensuring that there are sufficient incentives to bid (and sufficient competition) for the franchises, while at the same time seeking to make services ever more responsive to passenger needs and desires, including for punctuality, safety, comfort and value for money.
- 1.20 Meeting passenger needs has involved incremental, considered change, and often the balancing of conflicting priorities. For example:
 - The Strategic Rail Authority’s decision in 2001 to ‘simplify the franchise map’ by reducing overlapping franchises (see paragraph 1.12 above) may have reduced a degree of on-rail competition, but it was designed to

⁷ Railways Act 1993, section 4.

⁸ See, for example, Competition and Markets Authority merger decision ME/6506/14 (6 February 2015), [Anticipated acquisition by Inter City Railways Limited of the ICEC Franchise](#), paragraph 33.

address passenger needs, bringing services at key London termini under single control wherever possible, so reducing operational conflicts at congested parts of the network with a view to reducing delays and improving punctuality.⁹

- There is a balance to be struck, in drawing up the franchise agreements between the government as franchising authority and each franchisee TOC between on the one hand guaranteeing service levels for passengers and, on the other, giving the franchisee the flexibility to innovate responsively to passenger demand. Recognising concerns that franchise agreements had become over-specified, the government in July 2013 sought to redress the balance, committing itself (following the Brown Review it had commissioned into the future of franchising) to ‘seek to give bidders as much flexibility as possible in each future competition, in order to encourage increased efficiency and franchise value by allowing bidders to propose more innovative solutions’.¹⁰ This is, in our view, a welcome development.
- Another balance is between, on the one hand, protecting franchisees from undue risk while at the same time preserving their incentives to attract passengers through value for money, service quality and innovation. As described in Chapter 2, the ‘cap and collar’ mechanism in franchise agreements for sharing risk between the government and franchisees, which had the disadvantage of muting incentives for franchisees to increase passenger numbers, is now being phased out in favour of a risk-sharing mechanism reflecting exogenous risks such as GDP changes. Moreover, bids are now assessed on the basis of weighted scores that reflect initiatives by bidders to drive service quality improvements. We welcome these moves.

1.21 All these measures are designed to address passenger needs, in the latter two instances by increasing flexibility and responsiveness.

1.22 The question that the CMA, in this discussion document, wishes to consider is whether these incremental measures – many of which are undoubtedly welcome – are the best way to improve services for the passenger, or whether more significant improvements could be achieved by introducing a greater degree of head-to-head on-rail competition (in place of the current marginal levels) on intercity routes.

⁹ Strategic Rail Authority (January 2002), *The strategic plan*, p38.

¹⁰ Department for Transport (July 2013), *Government Response to the Brown Review of the Rail Franchising Programme*, paragraph 2.13.

Funding Great Britain's passenger rail services – a complex private/state mix

- 1.23 Any consideration of competition in Great Britain's passenger rail services must take into account the complex mix of funding.
- 1.24 The system is not purely commercial; as in other countries, rail services require a significant degree of government funding, reflecting:
- (a) the policy objective that socially valuable passenger rail services should be provided even if they are not commercially profitable (including public service obligation (PSO) operations); and
 - (b) the need for very significant ongoing investment in the rail network infrastructure, including future construction.
- 1.25 These funding elements are supported as follows. In the year 2013–2014:
- Franchisees contributed:
 - £1.9 billion to the government as franchising authority – by way of **premiums** for their franchises; and
 - £2.4 billion to Network Rail, the infrastructure operator – by way of **track access charges and related charges**; the framework of track access charges is set by the regulator, ORR, and if they are increased in a (five-yearly) periodic review, the government as franchising authority indemnifies the franchisee for much of the increase for the remainder of the franchise term.
 - The government contributed:
 - £2.0 billion to franchisees (mainly those operating less profitable routes and so unable to pay a premium; rather they bid to receive a 'negative premium' or subsidy); and
 - £3.7 billion to Network Rail (significantly more than Network Rail received in track access charges) – by way of direct subsidy or **'network grant'**.

The funding flows may be seen in the diagram which is included in Chapter 2 as Figure 1 (see paragraph 2.89).

- 1.26 The rail regulator, ORR, is currently undertaking a major review of the structure of track access and related charges payable to Network Rail, on the basis that this structure: 'affects the costs faced by franchise, freight and

open-access train operators [and] also has the potential to affect how train companies and Network Rail interact, and is one tool available to better align the incentives faced by all parties in the rail sector'.¹¹ The outcome of the review is a critical input for the possible changes advocated in this discussion document.

The purpose of this discussion document

- 1.27 In this discussion document, which is intended as a contribution to public policy debate by an independent competition authority that it is not a participant in the rail industry (and has no vested interest), we seek to examine (a) whether it would be desirable, and (b) whether it would be feasible, to increase the degree of competition 'in' the market for passenger rail services in Great Britain – that is, competition between operators of passenger rail services, also called 'on-rail' competition.
- 1.28 It has been put to us that current circumstances are ripe for consideration of these issues.
- In Great Britain we have an established and well-tested industry structure that is amenable to competition in passenger train operations, with full separation between train operators at the 'downstream' retail level and an 'upstream' infrastructure manager, Network Rail, which is wholly independent of them.
 - The franchising process, post-Brown Review (ie after 2012), is on a firmer footing than before, evidenced by the successful competition to award the East Coast main line franchise. At the same time, pressure is building in the system through an increased number of substantial open access applications to ORR to operate on more profitable intercity routes.
 - Capacity to accommodate new entry is likely to become more available, through a combination of incremental enhancements of the existing network, planned major new build (eg for HS2) and technologies allowing more efficient use of the network (such as on-board electronic signalling systems). Moreover, there is potential for load factors on trains to increase at certain times of day, particularly in the off-peak period, allowing more passengers to be carried on existing services without expanding capacity (we note that load factors increased in the European air transport sector following liberalisation and the introduction of new competition).

¹¹ ORR letter to Network Rail (5 December 2014), [Structure of charges review](#).

- An ever-greater proportion of funding of the industry (now 68%) is made by passengers through fares and other charges rather than by the government, which (it is said) strengthens the case that choice should increasingly be in the hands of passengers and not exclusively in the hands of government.
- As noted above, ORR's revised charging structure may remove some of the distortions in the current funding structure which are impediments to increased competition; the new structure should be in place by the time of its next periodic review in 2018, before any of the changes we are proposing would come into effect (see below, Chapter 7).
- The trend in other major European countries, and at EU level, is for greater on-rail competition.
- The current system is under pressure, as increasingly ambitious open access applications are submitted (eg those by Alliance Rail for major services on the East and West Coast main lines) and the rail regulator must consider whether to accept them in circumstances where (unlike the options proposed in this discussion document) there is no obligation on new entrants to pay fixed track access charges or otherwise compensate for any resultant shortfall in government revenues.

1.29 But there are a number of wider public policy considerations that need to be taken into account in any consideration of the desirability and feasibility of increased competition.

Protecting investment in the network and socially valuable services

1.30 **The risks of free-riding and cream-skimming:** in assessing these issues, we are mindful of the risks of new entrants:

- (a) 'free-riding' on investment in the industry (much of which is funded by a combination of incumbents' track access charges payments – at present, OAOs pay some track access charges, but not the 'fixed' charge element – and by the network grant and franchisees' contributions to premiums); and
- (b) 'cream-skimming' – ie challenging incumbents on profitable services, so potentially reducing their revenue streams and thus threatening the funding of unprofitable but socially-valuable services;

and of the desirability of ensuring that sufficient funds are available to maintain and enhance the infrastructure network and to retain socially valuable services.

- 1.31 **Effect on franchise premiums:** linked to this is the likely effect of the risk of increased competition to franchisees on the willingness to bid for franchises, and on the level of premiums that bidders are willing to pay. As noted in paragraph 1.25, franchisees currently contribute up to £1.9 billion a year in premiums, and thus contribute a proportion (about one-third) of the total government funding of the industry (subsidy of £2.0 billion to franchisees and network grant of £3.7 billion – totalling £5.7 billion).
- 1.32 **Addressing these issues:** in the context of these risks, the options for possible change we are putting forward for discussion incorporate the principle that, if significant new on-rail competition is to be permitted, any shortfall to government revenues (or at least a very significant proportion of any shortfall¹²) should be made up by contributions from the new competitors/entrants to the market – for example by being required to make proportionate contributions to fixed network costs (given that OAOs are currently exempt from payments of fixed track access charges) and possibly some form of ‘universal service levy’ to fund socially valuable but unprofitable services (or the entrants being required to operate such services). In the consultation on this discussion document, we very much would like to hear from respondents – and in particular potential new competitors – about whether it is realistic to expect new competitors to make this kind of contribution as a *quid pro quo* for easier entry into the market.
- 1.33 Similar considerations underlie the current moves at EU level for liberalisation of passenger rail services, and moves that are under way in a number of major European countries to establish or increase on-rail competition.

A ‘level playing field’

- 1.34 For competition to work with as few distortions as possible, the conditions of market entry for incumbents and new entrants should be equalised as much as practicable, so that they compete on a ‘level playing-field’. Clearly the situation where franchisees currently pay fixed track access charges but OAOs are exempt would need to cease, and entrants would need to contribute proportionately (see paragraph 1.32 above). But there are also advantages enjoyed by the franchisees – such as the fact that franchisees are largely indemnified by the government for any increases in track access charges during the franchise term, whereas OAOs have no such indemnity – which would need to be reviewed. We would expect these distortions to be addressed in the current ORR work programme.

¹² We recognise that the ability to recoup any shortfall fully is constrained by the fact that head-to-head competition at retail level would limit the returns that each operator could obtain.

Viability

- 1.35 It seems likely that on-rail competition is most likely to be viable on the major high-speed intercity routes – specifically, the East Coast main line (where the only open access services currently operate), the West Coast main line, and the routes linking London with south-west England and with south Wales (currently part of the Greater Western franchise). These are currently the most ‘commercial’ services, and are among those paying the highest premiums (see Chapter 2); they also have fewer capacity constraints than commuter routes. A similar approach has been taken where on-rail competition has been introduced in other European countries (see Chapter 4).
- 1.36 For this reason our main proposals in this document focus on those three high-speed routes alone.

Safeguarding existing franchisees’ rights

- 1.37 In this context, it seems to us important that any policy steps arising out of this paper should not interfere with the rights of any existing franchisee, or with any imminent franchise bidding process. Accordingly, we would not envisage any of these proposals taking effect in any franchise area until the expiry of the current (or, in the case of the West Coast and Greater Western, soon-to-begin) term of the franchise concerned.

Timing and planning

- 1.38 The implications of the suggestion that the options we are considering should not take effect until expiry of the current or soon-to-begin franchises (paragraph 1.37) is that they could not come into effect until 2023 at the earliest. That would allow policymakers and the industry time to plan, design and implement an appropriate process if there was agreement that some of the changes we discuss are beneficial.

Risks and benefits

- 1.39 While it seems to us absolutely critical to address the risks we have described above, we are at the same time conscious of the dangers of excessive risk aversion, even though industry problems, such as those described in paragraphs 1.18 and 1.19, have understandably made industry participants and policymakers properly aware of risk.
- 1.40 If the scale of on-rail competition is to be increased substantially, there are potentially significant prizes for our society, in terms of value for money and efficiency (both at train operator level and upstream on the network),

improved service quality and innovation. Because such benefits lie in the future, they are by their nature impossible to predict or guarantee with certainty. But excessive risk aversion in this respect carries the danger of denying passengers, the industry and the country the potential benefits that competition and liberalisation historically have shown a strong tendency to deliver.

Discussion and consultation

- 1.41 In the following chapters we first describe the background and industry context of this work; we then examine the strength of the case for competition in passenger rail services, and in particular for greater on-rail competition, in terms of passenger benefits and industry efficiency and value for money (Chapters 3 to 5), then the practical feasibility of greater on-rail competition (Chapter 6) before setting out some options for reform (Chapter 7).
- 1.42 In preparing this discussion document, we have engaged with a number of interested parties and industry experts. We have liaised closely with ORR, and jointly with ORR we hosted a 'round table' of franchised TOCs and a separate round table of OAOs and applicants. We have also individually met representatives of OAOs, franchisees, Network Rail, the rail freight industry, the consumer representatives Transport Focus and Which?, as well as academics and other experts specialising in the sector. We have also extensively engaged with the Rail Executive at the Department for Transport (DfT) and with officials at Transport Scotland, the Department for Business, Innovation & Skills, HM Treasury and with international rail regulators. We are extremely grateful to all of these for their valuable contributions.
- 1.43 We have taken account of the information provided to us, and the views expressed to us, to reach the provisional analysis and proposals set out in this discussion document, which are ours and not those of any other body.
- 1.44 We would now like to give interested parties an opportunity to consider this discussion document, and to respond to it in writing to Rail@cma.gsi.gov.uk by no later than **Friday 16 October 2015**. We would also like to hold an industry-wide round table in September.

2. Context: industry background

- 2.1 This chapter sets out how the rail sector in Great Britain has developed since privatisation to reach its current structure. The process of franchising passenger rail services is described together with the roles of TOCs, OAOs, freight operators, Network Rail and government.
- 2.2 The complex system by which the rail network is funded is summarised and the process by which train companies access the network is described. Finally, the relevance of EU legislation to the rail sector in Great Britain is considered.

Structure of the rail sector in Great Britain

The privatisation of British Rail

- 2.3 Following the nationalisation of Britain's railways in 1948, the state-owned operator, which became known as British Rail, was responsible for the operation of almost all passenger and freight rail services in Great Britain, including the infrastructure (track, depots and stations), the rolling stock and track operations.¹³
- 2.4 During the 1980s, British Rail was encouraged to develop greater commercial awareness, including adopting a strategy of identifying customer demands and shaping services accordingly and privatising non-rail subsidiaries. The period also marked a drive for efficiency. British Rail's financial position improved markedly, and by 1988–1989 intercity routes were not receiving any payments to support loss-making services. However, British Rail's financial position collapsed in the early 1990s through a combination of increased safety expenditure, the costs of improving lines to the Channel Tunnel and the recession.¹⁴
- 2.5 The privatisation of British Rail's core activities was first formally proposed in the late 1980s with the aim of freeing the industry from bureaucracy, achieving greater efficiency and delivering a wider choice of services more closely tailored to what customers wanted.
- 2.6 In July 1992, the government published its white paper outlining proposals for privatising British Rail. The Railways Act 1993 provided the legal framework

¹³ British Rail was a public corporation established under section 1 of the Transport Act 1962 as a successor to the rail and shipping activities of the British Transport Commission that was established in 1948.

¹⁴ Transport Committee (July 1995), *Railway finances* (fourth report of session 1994-95), HC206.

for the privatisation of British Rail. The principal provisions of the 1993 Act included:

- provisions for franchising passenger railway services;
- establishing a system under which train operators can gain access to, and use of, railway infrastructure, including the track, which would be owned by a new and separate body, Railtrack;
- establishing an independent economic regulator (ORR, which was then called the Office of the Rail Regulator) and a franchising authority (which was then run by a 'Franchising Director' but is now within the remit of the Rail Executive);
- guaranteeing the continuity of services in the event of a closure proposal or insolvency; and
- putting in place arrangements and procedures to secure the safety of railway operations (which subsequently became the responsibility of ORR).

2.7 Upon implementation of the Act in 1994, the responsibility for infrastructure and service operations was split and British Rail was restructured into two units with separate management and accounts.

2.8 The first unit was responsible for operating rail services. In preparation for the sale to the private sector, passenger services were reorganised into 25 different TOCs which were gradually incorporated as subsidiaries of British Rail, paying access charges to use the track and infrastructure and rentals for stations and rolling stock. Other parts of the business included freight operations and rolling stock companies (ROSCOs).

2.9 Each of the 25 TOCs was then offered for sale as a separate franchise. Private sector companies could bid for the franchises through a bidding process overseen by the Franchising Director. The successful bidder acquired the TOC for a fixed number of years. The first franchises, South West Trains and Great Western, were awarded in December 1995 and the first privatised services started operating in February 1996. The last franchise to be agreed was ScotRail, which started operating in private hands in April 1997.

2.10 The second unit, Railtrack, owned the track and other infrastructure and controlled the day-to-day operations of the network. Railtrack was responsible for timetabling, operating signalling systems, track investment and maintenance. Train operating units reached track access agreements with Railtrack covering access charges and the allocation of train paths which

were approved by ORR. Railtrack was required to contract out its own support functions, such as track maintenance, where doing so was considered to offer value for money. Railtrack was sold to the private sector in May 1996, by way of a stock exchange flotation.

- 2.11 The 1993 Act abolished British Rail's statutory monopoly of rail freight services. British Rail's Trainload Freight business was split into three geographical companies for transfer to private ownership.
- 2.12 Three ROSCOs – Angel Trains, Eversholt and Porterbrook – were established in April 1994 to inherit British Rail's rolling stock and to lease rolling stock to the new railway operators. Each company was given a portfolio of a similar mix of stock with a similar age profile and would be responsible for acquiring new trains when needed. The ROSCOs were sold in 1996. Eversholt and Porterbrook were acquired by their managements with development capital backing while Angel Trains was bought by an external management team with the financial backing of Nomura International.¹⁵

Management of the network after privatisation

Network Rail

- 2.13 Following Railtrack's financial difficulties in the wake of the Hatfield rail accident of October 2000 and the subsequent costly asset assessments and reports, Railtrack went into administration in 2001. Network Rail was established in 2002 as a company limited by guarantee, taking over the assets and liabilities of Railtrack and its role as the network operator. The company was established on a 'not for profit' basis which means that, while it could make a profit, to do so was not its primary aim. In 2014, Network Rail formally became a public sector body (see paragraph 2.15).
- 2.14 Network Rail owns and manages the main rail network infrastructure in Great Britain, including the track and related infrastructure (eg depots, signalling and electrification systems) and virtually all the stations (Network Rail operates 19 stations itself and leases all the others to the TOCs). For management purposes, the network is divided into ten regional operating routes, each constituting a separate business unit within Network Rail with its own accounts to facilitate greater benchmarking of performance between

¹⁵ House of Commons Library Standard Note SN/BT/3416, July 2014.

operations. The ten routes are Anglia, Kent, London North East, London North West, East Midlands, Scotland, Sussex, Wales, Wessex and Western.¹⁶

- 2.15 Following a change in European reporting rules, on 1 September 2014 the company was reclassified by the Office of National Statistics from the private to the public sector for statistical reasons, becoming an arm's length body of the DfT.¹⁷ Network Rail retained commercial and operational autonomy to manage Britain's rail infrastructure within the framework of the relevant regulatory and control rules that apply.¹⁸ The most significant effect of the change was that the company's net debt (currently around £30 billion) now appears on the government's balance sheet.
- 2.16 Network Rail is regulated by ORR under its network licence. ORR has a range of statutory powers to set the contractual and financial framework within which Network Rail operates. There are six parts to Network Rail's licence covering: network management and timetabling; restrictions on activities; dealings with third parties; information requirements; corporate requirements and standard industry obligations.
- 2.17 The level of access charges paid to Network Rail is regulated by ORR through a process of five-yearly periodic reviews and, where appropriate, interim reviews. ORR assesses what Network Rail must achieve, the money it needs to do so and the incentives needed to encourage delivery and outperformance. Each review covers a five-year period, known as a 'control period'. The current period, Control Period 5 (CP5), runs from 2014 to 2019. The outputs and funding for this period were set during the Periodic Review 2013 (PR13).

Franchises

- 2.18 A passenger rail franchise confers on the franchisee TOC to which it is awarded the right to run specified services within a specified area for a

¹⁶ Network Rail also owns the land, rail infrastructure and assets on the Isle of Wight but these have been leased to Stagecoach South Western Trains Limited (under the Island Line brand) for a period of 25 years, commencing on 1 April 1994. This is a vertically integrated operation with Island Line being responsible for all railway operations and infrastructure maintenance. See Network Rail, [Network Statement 2016, December 2015-December 2016](#).

¹⁷ Member states of the EU are legally obliged to compile specified statistical returns on the basis of the European System of Accounts (ESA). The UK national accounts are produced by the Office of National Statistics on this basis. The national accounts provide a framework for describing what is happening in the economy. This involves the grouping of all institutional units (such as businesses, government departments or charities) operating within an economy together with other similar units into a number of sectors. All transactions between the sectors of the economy are categorised as part of this national accounts framework, including classifications of bodies to the public or private sector. See Office of National Statistics (December 2013), [Classification of Network Rail under European System of Accounts 2010](#).

¹⁸ In September 2014, the DfT and Network Rail entered into a Framework Agreement, which sets out how they will interact in terms of corporate governance and financial management.

specified period of time, in return for the right to charge fares and, where appropriate, to receive financial support from the franchising authority (now the Rail Executive in the DfT¹⁹). Franchisees generally lease stations from Network Rail and earn rental income by subletting parts of them, for example to retailers.

- 2.19 Operators 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 these services. The winner is selected on the basis of a weighted scoring system taking into account factors including the subsidy or premium offered and initiatives to enhance the quality of service for passengers. This competition ‘for’ the market, to run a franchise, is currently the principal form of competition in passenger rail services. Franchised services cover 99% of the market for passenger rail services.
- 2.20 In the event that a franchise is terminated or suitable bids are not submitted, the Secretary of State for Transport (in the case of England and Wales) has a responsibility to be the operator of last resort (see section 30 of the Railways Act 1993).²⁰
- 2.21 The franchisees’ rights and obligations are specified through a Train Service Requirement as part of the franchise agreement negotiated between the franchising authority and the franchisee. The Train Service Requirement includes obligations on franchisees such as the number of train calls at the stations served and the timing of first and last trains. Each franchise has its own specific Train Service Requirement. A fuller description of franchise specification and how it has changed over time is set out in paragraph 2.39.
- 2.22 European law specifies that rail franchises may initially be awarded for a term of up to 15 years, but may be extended in certain circumstances for a further 7.5 years. This means that the maximum length of rail franchises cannot exceed 22.5 years.²¹ The independent Brown Review into franchising (see paragraph 2.25 below), which was published in January 2013, recommended that franchise agreements should be concluded for an initial term of seven to ten years with a pre-contracted extension, in the event that agreed criteria are

¹⁹ As noted in paragraph 2.89 below, 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.

²⁰ For example, this happened in the case of Connex South Eastern in December 2003 (at the time, operating the South Eastern franchise), GNER with respect to the East Coast franchise in December 2006 (although GNER continued to manage the franchise on behalf of the DfT under a temporary agreement until the new franchise became operational in December 2007) and National Express in November 2009 (for the East Coast franchise).

²¹ EU Regulation 1370/2007, Articles 4(3) and (4). If justified by the amortisation of capital in relation to exceptional infrastructure, rolling stock or vehicular investment and if the public service contract is awarded in a fair competitive tendering procedure, a public service contract may have a longer duration.

met, for a further three to five years giving a maximum term of up to 15 years.²²

- 2.23 Initial franchises were relatively loosely specified by the then Franchising Director, which produced a Passenger Service Requirement (PSR) setting out the minimum service levels for train services, based on the timetable historically operated by British Rail. Each PSR was (and, for the Chiltern Railways franchise, is still) specific to a franchise, but generally included requirements relating to first and last trains, frequency, journey time and stopping patterns. The Franchising Director had the responsibility for monitoring each franchisee's performance. If a franchisee did not deliver the proper timetable, the Franchising Director could impose penalties or, as a last resort, terminate the franchise agreement.
- 2.24 Under the Transport Act 2000 a body called the Strategic Rail Authority (SRA) inherited all the functions, property, rights, and liabilities of the Franchising Director. Under the Railways Act 2005, the functions relating to franchise agreements for England transferred from the SRA to the DfT, responsibility for the Scottish franchise transferred to the Scottish Executive and the Welsh government was granted a direct role for local and regional passenger rail services in Wales. Franchise specification has become tighter over time (eg in relation to the frequency and timing of services and the provision of on-board facilities) through the introduction of Service Level Commitments and Train Service Requirements, as considered further below.²³
- 2.25 Following the problems with the re-let of the West Coast franchises, 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.²⁴ During the hiatus in the bidding process, which has now restarted with the award of the Essex Thameside, Thameslink, Southern and Great Northern and East Coast main line franchises, a number of direct awards were made to extend franchises. The nature of these awards varies but, in effect, the government negotiates directly with the incumbent operator and there is no competition for the award. The DfT works with technical advisers to build a comparator model based on the current and

²² The review of the rail franchising programme was conducted following the problems with the award of the West Coast franchise in 2012. Certain of the current franchises have a term exceeding 15 years: these are Chiltern Railways (19 years) and West Coast (20 years; due to multiple extensions). See House of Commons note by Louise Butcher (8 January 2015), [Railways: fares](#), Business and Transport (SN1904).

²³ The DfT has made the point that it is the greater level of financial risk borne by the franchising authority over time that has led to a greater level of franchise specificity.

²⁴ DfT (January 2013), *The Brown Review of the Rail Franchising Programme*.

projected performance of the franchise. The submissions from the incumbent for the direct award are then compared to this model.

The development of on-rail competition since privatisation

The government's vision at the time of privatisation

- 2.26 At the time of privatisation, the government's 1992 White Paper envisaged that competition would be instrumental in driving greater efficiency and a wider choice of services that were more closely tailored to customer preferences.²⁵ The government noted that the rail industry was more insulated from the demands of the market than other forms of transport – such as the airline, coach and road haulage sectors – and that radical changes were needed.
- 2.27 The 1992 White Paper also envisaged that franchises would be designed, wherever possible, to provide scope for competition. There would be no universal template for a franchise contract and flexibility would be preserved in all aspects of franchising to take full account of the private sector's views on how it can best bring its skills to bear. Subject to contractual obligations, operators would have the freedom to provide the extent, type and quality of service which they believe best meet passenger demands.
- 2.28 The DfT published a paper in 1993, in which it explained that 'it is the Government's intention that on-track competition in the first generation of franchises will be moderated, but only to the extent necessary to ensure the successful transfer of British Rail's passenger services to the private sector'.²⁶ The government envisaged that, after the initial franchises were awarded, as the system for gaining access evolved, more services would be provided on the basis of open access and fewer under franchise agreements.²⁷ Also, train operators would obtain subsidies for individual loss-making services rather than packages of services.²⁸
- 2.29 Freedom of access was also central to the aims of privatisation, with the government seeking the greatest possible development of commercial railway services. Liberalising access was seen as complementary to structural changes by providing the opportunity for new operators to run services, encouraging initiative, giving customers a wider choice and rail operators the stimulus of competition to provide better service quality and value for money.

²⁵ New Opportunities for the Railways, The privatisation of British Rail, Cm 2012, July 1992.

²⁶ The publication is entitled Gaining Access to the Railway Network and is mentioned in [the ORR's Competition for Railway Passenger Services: policy statement](#), 1994, p43.

²⁷ Chris Bolt, ORR, [The Restructured Railway in Great Britain: Performance and Prospects](#), p16.

²⁸ Ibid.

2.30 Greater on-rail competition has remained a policy objective of the authorities. ORR, in its long-term regulatory statement of July 2013, said:

There is an opportunity for there to be much greater on-rail competition in the future, if governments desire it. The addition of new [network] capacity, including HS2, and the introduction of new signalling technology that allows much more dense use of network capacity, will open up new route paths that allow greater on-rail competition between operators.²⁹

There have been real achievements, but the system has not yielded all the competitive benefits that were envisaged

2.31 In the subsequent years the system has, as noted in the Introduction, produced notable successes. Competition ‘for’ the market has been intense, with franchise competitions attracting a significant number of credible bidders (see paragraph 4.1 below). There appear to have been real benefits, evidenced by the reverse over the past two decades of the previous long-term decline in usage of Britain’s railways and, over the past decade, a material increase in passenger satisfaction.

2.32 The system has had to deal with the aftermath of a number of ‘shocks’ – the Hatfield rail accident and the subsequent overhaul of the network infrastructure and insolvency of the then network operator Railtrack; the exit of the East Coast franchisee; and the failure of the 2012 West Coast franchise auction – and lessons have been learned. The government, balancing the need for stability with the need to make the system more responsive to passenger needs, introduced a number of reforms to facilitate more competitive behaviour including, in the past few years, a commitment to greater flexibility in franchise specification (see paragraph 1.20 above) and changes to the mechanism in franchise agreements for sharing risk between the government and franchisees (see below, paragraph 2.49).

2.33 Moreover, a number of further changes were made to the franchise award programme following the Brown Review in order to maximise the benefits of competition ‘for’ the market. In particular:

- the new franchise award programme introduced a weighted scoring system against which bids are assessed that reflects the ‘quality’ of bids. An amount of points in the competition are awarded to bids which include initiatives to enhance quality of service passengers receive over and

²⁹ ORR (July 2013), Opportunities and challenges for the railway – the ORR’s long-term regulatory statement, p12.

above the franchise specification's requirements or which enhance the value of the franchise for the taxpayer that would not generally be expected to provide a return within the life of the contract;

- innovation in bids has been encouraged by making specific funds available to certain franchisees for innovations that can be bid for by operators during the life of a franchise;³⁰ and
- the approach to the treatment of the residual value of investments made by franchisees was developed in order to address the risk of investment tailing off towards the end of a franchise. This makes it more likely that new competitive challenges to franchisees will elicit a competitive response.

2.34 Nevertheless, for all these very real gains which have enabled franchisees to become more responsive to passenger needs, the system has not yielded all of the benefits that were hoped for at the time of privatisation:

- the scale of on-rail competition envisaged at privatisation has not materialised;
- the post-privatisation period has seen a significant increase in passenger rail expenditure, only part of which can be directly attributed to the increase in outputs; and
- franchisees have a limited ability, and muted incentives, to respond to customer preferences, because of detailed franchise specification and risk-sharing mechanisms.³¹

2.35 The following paragraphs consider these issues in greater depth.

The scale of on-rail competition is limited

2.36 As set out above, on-rail competition in the post-privatisation period was limited by a policy known as Moderation of Competition under which franchisees were given contractual protection from the unpredictability of unrestricted competition. In 2004, ORR adopted a market-based framework

³⁰ This scheme is currently a pilot that applies to the Northern, TransPennine Express and East Coast franchises, the success of which will be assessed towards the end of 2017, before a decision is taken on whether or not to roll it out to other franchises.

³¹ For example, ORR notes in the emerging findings of its retail market review that although in the tendering process potential franchisees are incentivised to compete to offer new products and fares, during the franchise period franchisees' ability and incentives to offer new fares and products are limited – *ORR retail market review, emerging findings*, June 2015, paragraphs 3.7–3.9.

for assessing access applications in the form of the NPA test. The NPA test has restricted the scale of open access operations, although the point has been made to us that that has also protected the taxpayer's exposure to risk. The details of historical open access applications are set out in Appendix B.

- 2.37 Moreover, the number of franchise overlaps was reduced by the SRA following its franchising policy announcement in 2001.³² The SRA argued that having a single operator at each major London terminus would have a number of practical advantages including optimising capacity and offering economies of scale. In the subsequent franchising round, the number of franchise overlaps was significantly reduced.³³

Efficiencies have not materialised

- 2.38 The post-privatisation period has seen a significant increase in passenger rail expenditure, only part of which can be directly attributed to the increase in outputs. Since 1996–1997 passenger rail industry expenditure has increased from more than £8 billion to £12.7 billion in 2013–2014.³⁴ The efficiency of the sector is considered further in Chapter 5.

Franchise specification and risk-sharing have limited competition

- 2.39 The form of franchises has changed several times since privatisation, reflecting changing government policies, and attempts to deal with shortcomings of the framework as they emerged. The initial franchises were awarded by the Office of Passenger Rail Franchising (also known as the Franchising Director):
- For intercity routes, franchise specification was introduced simply to ensure that a minimum level of service was provided.
 - For London commuter routes, specification safeguarded first and last trains and a minimum frequency throughout the day, with load factor regulation aimed at safeguarding peak capacity.
 - Services provided by regional franchises were, however, tightly specified as most were not commercially viable.
- 2.40 After the 1997 election, the new Labour government created the SRA to set the strategy for the network and to oversee the franchise process. Franchises

³² [SRA franchising policy announcement](#), 19 December 2001.

³³ [SRA Strategic Plan 2002](#), p38.

³⁴ Prices adjusted for inflation at 2013/14. DfT (May 2011), *Realising the Potential of GB Rail Report of the Rail Value for Money Study*, p20. Also, ORR (February 2015), [GB rail industry financial information 2013-14](#).

of 20- to 25-year duration were offered in return for major infrastructure investment by the operators. However, Railtrack's collapse and a lack of appetite from operators to deliver infrastructure investment resulted in only the Chiltern Railways franchise being let on this basis.

- 2.41 Following the creation of Network Rail in 2002, the SRA introduced a new approach to franchising, increasing the degree of specification. Franchisees were required to operate tightly specified timetables and required to implement initiatives developed and negotiated by the SRA. New rolling stock was increasingly specified by the SRA.
- 2.42 The Railways Act 2005 abolished the SRA, and the government – having decided that it was necessary to take more direct control of the industry – conferred responsibility for the franchising to the DfT. Franchises continued to be let on a similar basis to those let in the latter days of the SRA. However, as set out above, risk-sharing mechanisms were introduced, primarily through the 'cap and collar' system. Under this system, an operator's actual revenue for a given year is compared with the target revenue forecast in its original franchise bid, with any surplus or shortfall potentially shared between the DfT and the operator (see further below). While there is some variation between franchises, revenue support typically works as follows:
- If actual revenue falls below 98% of target revenue for a given year, the franchisee is entitled to receive from the DfT 50% of the shortfall between 94% and 98% of target revenue. When actual revenue is below 94% of target revenue, the franchisee receives from the DfT 80% of the shortfall below 94%.
 - If actual revenue exceeds 102% of target revenue, the franchisee is committed to pay revenue share to the DfT.
- 2.43 For most franchises using the cap and collar system, revenue share is payable in respect of any year where the revenue is more than 2% above target, but revenue support is usually only received from the fifth year of the franchise onwards.
- 2.44 The cap and collar approach provided significant protection for franchisees during the recent economic recession, but has been criticised for distorting the commercial incentives of operators.³⁵ At the maximum level of revenue support, franchisees receive only 20% of incremental revenue so have little incentive to grow revenue. This could discourage franchisees from improving service, running additional services, innovating and reducing fare evasion. In

³⁵ See, for example: *Rail Franchising in the UK*, Roland Berger Strategy Consultants, December 2012.

turn, the DfT may have to pay more revenue support than would be necessary. Moreover, revenue support is paid regardless of whether or not the revenue shortfall is caused by factors outside the control of the franchisee. The system may also create incentives to franchisees to forecast very high premiums in the final years of the franchise. In conjunction with a relatively low discount rate used by the DfT, franchisees may submit very high projected franchise payments towards the end of the franchise period thereby increasing the net present value of their bid. This would come with minimal risk to the franchisee as they would benefit from revenue support in the eventuality they are unable to meet these franchise payments.³⁶

- 2.45 In March 2012, following the McNulty Report on rail value for money,³⁷ the government proposed a number of reforms to the franchise system. These included awarding longer franchises (generally up to 15 years), more flexibility about how services are configured (but with the government specifying a core level of service), less intrusive day-to-day management of franchises by the government, a profit-share mechanism to better ensure the protection of taxpayers' interests and the alignment of incentives with Network Rail.³⁸
- 2.46 In October 2012, following the problems with the re-let of the West Coast franchises, the Secretary of State for Transport announced an independent review, the Brown Review (see paragraph 2.25 above), to examine 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.
- 2.47 The outstanding franchise competitions (Greater Western, Essex Thameside and Thameslink) were paused pending the outcome of the Brown Review.
- 2.48 In March 2013, the government announced its intended approach to franchising over the medium term.³⁹ The timetable for future franchise awards, subsequently revised in April 2014, was published at the same time.⁴⁰ The government also published a revised statement on franchising policy, setting out how the Secretary of State proposed to exercise franchising powers in the future.⁴¹
- 2.49 In the new franchising models, cap and collar was abandoned and, in some cases, replaced by a risk-sharing mechanism reflecting exogenous risks, such as GDP changes, throughout the whole life of the franchise. A financial

³⁶ This is outlined in Roland Berger Strategy Consultants (December 2012), *Rail Franchising in the UK – A new approach to get the system back on track*.

³⁷ DfT (May 2011), *Realising the Potential of GB Rail Report of the Rail Value for Money Study*.

³⁸ DfT (8 March 2012), *Reforming our railways: Putting the customer first*, Cm 8313.

³⁹ DfT press notice (26 March 2013): [Fresh start for franchising](#).

⁴⁰ DfT (8 April 2014), *Rail Franchising Schedule and Prior information notice for rail franchising from 2014*.

⁴¹ DfT (26 March 2013), *Consultation Response Document: Railways Act Section 26*.

adjustment will occur in relation to each year of the franchise from which actual GDP varies from the DfT's forecast by an amount in excess of the 'nil band' of plus or minus 5%. The revenue element of this adjustment will be weighted by 80%. This new risk-sharing mechanism was introduced in the new West Coast and East Coast main line franchises which came into effect in 2014 and 2015, respectively.

- 2.50 This mechanism therefore meets the aim of the original cap and collar mechanism with regard to limiting the risk of franchise failure, but without introducing such distorting incentives on revenue growth which accompanied the original mechanism. However, in the case of the East Coast main line franchise, some form of contractual indemnity has been included in the franchise agreement which aims to ensure that the franchisee would be protected against any revenue shortfall in the event that open access entry results in its inability to secure track access for the delivery of its proposed timetable.
- 2.51 Due to the complexities surrounding the Thameslink programme upgrade work, the Thameslink, Southern and Great Northern franchise agreement, which came into effect in 2014, is structured as a management contract in which the operator manages the delivery of rail services on the franchise network on behalf of the DfT. Under this contract, the DfT takes almost all the rail fare revenues and the operator earns a management fee. The contract imposes significant constraints on the operator's freedom to determine the commercial parameters of the franchise, such as ticket prices.

Competition 'for' the market alone may not fully realise the benefits of competition

- 2.52 More generally, insights from standard economics suggest that, in many sectors, competition directly between operators 'in' the market tends to be more effective at delivering benefits than competition 'for' the market. In particular, we note that a number of conditions need to be met in order for a bidding process to be perfectly efficient so as to fully realise the benefits of competition 'for' the market. In this regard, we note that two of the four conditions for an ideal bidding market outlined in Klemperer's paper on bidding markets (2005)⁴² are not met by the current competitive tendering system for franchises:
- competition does not begin afresh for each contract and customer; and

⁴² Klemperer, P (2005), *Bidding Markets*.

- entry is not ‘easy’ given that the franchise application process is expensive and time-consuming.

In practical terms, we have considered whether, in the context of passenger rail services, the evidence suggests that competition ‘in’ the market may deliver greater benefits than competition ‘for’ the market alone.

The franchisees’ finances

- 2.53 Franchisees’ main costs are the track access charges that they pay to Network Rail, the costs of leasing stations and rolling stock and of employing staff. Franchisees may do light maintenance work on rolling stock themselves or contract it out to private companies. Heavy maintenance is normally procured for TOCs by ROSCOs, according to the contracts between them.
- 2.54 Franchised train operators’ revenues are primarily derived from the sale of tickets but also include other income from ancillary activities such as car parking, on-board catering and advertising.⁴³
- 2.55 An important aspect of bidding for franchises, which is a major factor in determining the outcome of the competitive process for the award of each franchise, is how much is paid by the franchisee to the government (the DfT as franchising authority) for the franchise. This might be either a positive figure, ie a ‘premium’, or a negative figure, ie a subsidy from the government to the franchisee. These figures are shown in Table 1 below; it will be seen that the overall net payment is a subsidy from the government to the franchisees of just £0.1 billion, ie that the total revenue implications of the franchised passenger services is roughly neutral. The existence and scale of a premium or subsidy broadly reflects the commercial attractiveness to bidders of the franchise concerned, which is itself reflective of the extent to which the franchise contains profitable services or unprofitable, but socially valuable, public service operations.
- 2.56 Under the terms of each franchise agreement, the government indemnifies each franchisee, for the duration of the franchise term, against any rise in the rate of track access charges payable by the franchisee to Network Rail, typically following a periodic review by ORR (see above, paragraph 2.17), that occurs during the franchise term.
- 2.57 There are currently 16 franchises operating in England and Wales and two in Scotland. A map of these is included in Appendix A. Table 1 sets out the current franchises and their operators. It also shows how much was paid by

⁴³ ORR (November 2012), *Costs and Revenues of Franchised Passenger Train Operators in the UK*, p21.

the franchisee to the government for each franchise – either a positive figure (a ‘premium’) or a negative figure (a ‘subsidy’).

Table 1: Rail franchises in Great Britain in 2015

Franchise	Operator	Duration	£ million	
			Premium (+) / subsidy (-) in 2013–2014	Income in 2013–2014
c2c Essex Thameside	National Express	Sep 2014–Nov 2029	+4	+145
Chiltern Railways	DB Regio	Mar 2002–Dec 2021	+9	+173
Cross Country	Arriva	Nov 2007–Nov 2019	-31	+438
East Midlands Trains	Stagecoach	Nov 2007–Oct 2017	-13	+361
Greater Anglia	Abellio	Feb 2012–Oct 2016	+164	+658
Greater Western	First Group	Apr 2006–Mar 2019	+118	+891
Integrated Kent/Southeastern	GoVia	Apr 2006–Jun 2018	-69	+712
InterCity East Coast	Stagecoach/Virgin	Mar 2015–Mar 2023	+217	+717
InterCity West Coast	Virgin Trains	Mar 1997–Apr 2017	+97	+954
London Midland	GoVia	Nov 2007–Jun 2017	-57	+317
Northern	Serco/Ned Railways	Dec 2004–Feb 2016	-346	+289
Southern	Govia	Sep 2009–Jul 2015	+153	+770
South West Trains	Stagecoach	Feb 2007–Apr 2019	+297	+961
Thameslink/Great Northern	Govia	Sep 2012–Sep 2021	+195	+594
TransPennine Express	First Group/Keolis	Feb 2004–Feb 2016	-66	+202
Wales & Borders	Arriva	Dec 2003–Oct 2018	-152	+171
ScotRail*	Abellio	Apr 2015–Mar 2025	-506	+349
Caledonian Sleepert†	Serco	Mar 2015–Mar 2030	N/A	N/A

Source: ORR data and [House of Commons note \(8 January 2015\), Railways: passenger franchises](#).

*Subsidies and income in 2013–2014 relate to First ScotRail (ie the TOC owned by FirstGroup, which operated the ScotRail franchise from October 2004 to March 2015).

†The Caledonian Sleeper only commenced as a separate franchise in March 2015.

Open access operators

2.58 Franchisees face a degree of competition ‘in’ the market from non-franchised operators, which are granted the right, by ORR, to compete on certain routes as OAOs. There are currently just two OAOs:⁴⁴

- First Hull Trains, which commenced services between London and Hull in 2000. Currently, First Hull Trains runs seven services per day between London and Hull on weekdays and five on weekends.⁴⁵
- Grand Central Railway, which commenced services from London to Sunderland in 2007 and from London to Bradford in 2010. The company runs five trains per day from London to Sunderland on weekdays/ Saturdays and four on Sundays and four trains per day from London to Bradford throughout the week.⁴⁶

⁴⁴ Other operators such as those running the Heathrow Express and the North Yorkshire Moors Railway can be considered to be OAOs but they do not run long-distance high-speed services in competition with franchisees and their access agreements pre-date the current regime.

⁴⁵ See www.hulltrains.co.uk/travel-information/our-timetables/.

⁴⁶ See www.grandcentralrail.com/tickets-timetables/train-timetables/.

- 2.59 Both OAOs compete against the incumbent franchisee on certain East Coast main line routes. Together, they represent less than 1% of passenger miles in Great Britain.
- 2.60 Another OAO, Wrexham and Shropshire, used to operate open access services between London Marylebone and Wrexham. It commenced operations in April 2008 but was unsuccessful financially and exited the market in January 2011.
- 2.61 OAOs operate on a commercial basis with no subsidy and are required to apply to ORR and Network Rail for the necessary access rights to run their proposed service. Network Rail will advise a current or potential rail operator on the likelihood of train paths being available on the relevant part of the network for running a proposed service based on the timetable in operation at the time. Network Rail may then either support an application to ORR under section 18 of the Railways Act 1993 or not, in which case the procedure under section 17 for 'disputed' applications is followed.
- 2.62 The application process can take up to 12 months to complete; however, timescales vary depending on the complexity of each case and whether any competing applications for the same track capacity have been filed.⁴⁷ In considering applications for track access, ORR must have regard to its statutory duties. Although having a duty to promote competition for the benefit of rail users, ORR must balance this with its other statutory duties, as set out in section 4 of the Railways Act 1993, including the requirement to have regard to the funds of the Secretary of State for Transport.
- 2.63 In the post-privatisation period, on-rail competition was limited by a policy referred to as Moderation of Competition. Under this policy, each track access agreement specified those routes on which Network Rail (and previously Railtrack) was prohibited from granting access rights to potential competitors of the TOCs.⁴⁸ The rationale behind this approach was to ensure that OAOs could not undermine the viability of the franchise system by 'cherry picking' profitable services. However, in 2004, ORR indicated that it would only approve Moderation of Competition clauses in exceptional circumstances (ie where investments would not otherwise occur). In November 2010, ORR stated that such protection would no longer be approved.

⁴⁷ ORR decisions are normally issued within two months from receipt of all necessary information; however, gathering the relevant material can be a lengthy process.

⁴⁸ See ORR (October 2011), [The potential for increased on-rail competition - a consultation document](#).

- 2.64 Under the current open access regime, new entrants are able to compete directly against the TOCs provided that such new entry is ‘not primarily abstractive’,⁴⁹ ie if the new services will increase the overall market size by generating at least some new-to-rail business rather than merely abstracting business from existing operators (which, in turn, would have a negative effect on the Secretary of State’s funds). The test, commonly known as the ‘NPA rule’, is currently interpreted to require that the proposal must generate three units of new revenue for every ten units that it abstracts from the franchisee(s) operating on the same routes.
- 2.65 For the purpose of the NPA rule, ORR has established a five-stage test which applies when a new open access service would compete with franchised services, impacting upon the public sector funder’s budget or when a new OAO would compete with an existing open access service.⁵⁰ As part of this test, standard industry models⁵¹ are used to estimate the likely level of abstraction (as part of stage 1) and estimates are refined using benchmarking and survey information from other comparable situations (at stage 3).⁵²
- 2.66 In 2013, ORR took the opportunity of its periodic review to launch a consultation on whether to be more permissive of open access by relaxing the NPA rule in return for OAOs paying a mark-up as a contribution to Network Rail’s fixed costs. Following consultation, however, ORR decided to retain the NPA rule, but said that it would review the operation of the requirement.
- 2.67 Fares set by OAOs are not subject to fare regulation.⁵³ However, OAOs have the same general obligations as franchisees, other than with respect to ticket offices.
- 2.68 As described in further detail below in the section on funding the network, OAOs are required to apply to ORR and Network Rail for the necessary access rights to run their proposed services. ORR received 19 proposals for open access services between 2000 and 2014. Only four were successful

⁴⁹ Other factors may also be relevant, eg performance effects, benefits to passengers and the impacts on taxpayers.

⁵⁰ The test also applies in the case where a new franchised service would compete with an existing franchise and the competing services are supported by different public sector funders or where the proposed franchise competes with an existing OAO.

⁵¹ Rail industry models used include MOIRA and PDFH (the passenger demand forecasting handbook). MOIRA models the supply side of the rail industry and is composed of a base year and future year timetables, including data on train capacity. On the rail demand side, PDFH identifies all the known demand drivers and quantifies the value of these drivers on demand.

⁵² See ORR (December 2011), [Criteria and procedures for the approval of track access contracts](#).

⁵³ ATOC press release (21 November 2008): [ATOC Announces 2009 Rail Fares Changes](#).

and, of these, only three remain: one operated by First Hull Trains, and two by Grand Central (operating its Sunderland and Bradford services).

- 2.69 Although existing OAOs have extended their operations, over the last five years no new OAOs have entered the market. ORR received three proposals from Alliance Rail in 2014 to authorise more substantial open access operations that would compete head-on against the franchisees on the East Coast and West Coast main lines. The application to provide passenger rail services on the West Coast (between London and Blackpool) was rejected in December 2014, although, in April 2015, Alliance Rail announced a revised proposal to operate open access services from London to Blackpool.⁵⁴
- 2.70 In March 2015, ORR received an application from FirstGroup to run services on the East Coast main line from 2018. If this is authorised, it will add five daily services in each direction between London King's Cross and Edinburgh. A full list of open access proposals submitted from 2000 to 2015 is set out in Appendix B.

Freight operating companies

- 2.71 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.
- 2.72 Freight operators may either own or lease locomotives and wagons. They are allocated train paths on the network by Network Rail, alongside TOCs and OAOs. Rail freight operates in sectors including bulk (eg coal, construction and petrochemicals), intermodal (eg shipping containers) and automotive.
- 2.73 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.

Rolling stock leasing companies

- 2.74 The three major ROSCOs operating in Great Britain are Angel Trains, Eversholt and Porterbrook. ROSCOs own fleets of trains and lease them to TOCs, OAOs, freight operators and train building companies.⁵⁵ When rolling stock is replaced by newer stock on a given route, it is often re-let to other routes operated by different companies. The ROSCOs work with train

⁵⁴ The application by Alliance Rail lodged with ORR in early 2014 to operate fast services between London King's Cross and Edinburgh and to Cleethorpes and Bradford on the East Coast is still under consideration.

⁵⁵ 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.

operators to determine the sorts of engines, carriages and trucks required to deliver the desired customer services.

- 2.75 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.
- 2.76 In recent years, the government has stepped in to procure large rolling stock orders directly from the train manufacturers, including the rolling stock for schemes such as the InterCity Express Programme (replacing the original diesel InterCity 'High Speed Trains'), Thameslink and Crossrail. The rationale for this was to ensure the delivery of large-scale investment and to align the procurement and delivery of the new rolling stock with the specification and delivery of major infrastructure upgrades to parts of the network on which the new rolling stock will be used.
- 2.77 The Competition Commission reviewed the rolling stock leasing market in 2009 and concluded that competition in the market for the leasing of rolling stock was restricted by the limited number of alternative fleets available to TOCs when bidding for franchises and a number of other factors such as the costs and risks involved in switching rolling stock.⁵⁶ The Competition Commission made several recommendations and imposed the Rolling Stock Leasing Market Investigation Order, which placed certain obligations on rolling stock lessors. Earlier this year, ORR consulted on how well the Order was working and on whether any other important changes had taken place since the Order came into force in 2010.⁵⁷ It concluded that the Order has, in at least the large majority of cases, been complied with and been broadly successful on its own terms. There were mixed views on the extent of market changes since 2010.

The role of government

- 2.78 Rail differs from many other privatised industries by the fact that government plays a major role in all aspects of the industry from access to the network to the operation of passenger rail services. As set out in paragraph 2.90 below, the government accounts for 29% of the rail industry's funding. The following paragraphs set out the roles of the key government departments and agencies involved.

⁵⁶ Competition Commission (7 April 2009), [Rolling Stock Leasing market investigation final report](#).

⁵⁷ ORR (April 2015), The Rolling Stock Leasing Market Investigation Order 2009, review findings.

Office of Rail and Road, the industry regulator

2.79 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 and economic regulator of railways in Great Britain. 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, one of which is to 'promote competition in the provision of railway services for the benefit of users of railway services' and another of which is to 'have regard to the funds available to the Secretary of State for the purposes of his functions in relation to railways or railways services'.

2.80 ORR's statutory responsibilities include:⁵⁸

- monitoring the efficiency and performance of Network Rail and other main line rail infrastructure providers (including HS1 and the UK end of the Channel Tunnel), to hold them to account on performance for users within a long-term framework;
- regulating and enforcing health and safety on the railways, to protect passengers, workers and the public;
- regulating access to the rail network for passenger services and freight, to maximise capacity and ensure fair and equal treatment of operating companies and the charges that they pay;
- licensing and authorising rail activities and technical standards, to ensure safety, accessibility and interoperability of rail infrastructure and vehicles across the network, and internationally;
- ensuring fair and efficient markets for customers and across the sector including the supply chain; and
- protecting and promoting passenger interests, including under consumer law.

Department for Transport

2.81 The DfT, acting under the authority of the Secretary of State for Transport, is responsible for preparing the government's long-term strategy for the rail

⁵⁸ As from 1 April 2015, ORR is also the independent monitor of Highways England.

industry, defining the level of passenger services expected to run and specifying the level of funding required.

- 2.82 The DfT is now (through its Rail Executive) the franchising authority responsible for the majority of franchise agreements entered into with respect to services on the rail network in England, Wales and cross-border routes.⁵⁹ In addition, it is responsible for fare regulation and other consumer protection aspects such as safeguarding the provision of services for disabled people.

Rail Executive

- 2.83 In 2014, the DfT created a Rail Executive within it to support the drive to strengthen its focus on passengers, to build an enhanced culture of commercial expertise and innovation and to ensure greater coordination of improvements to track and trains. The role of the Rail Executive covers:
- passenger rail services, including franchise contract award and franchise management;
 - major projects, including Crossrail, Thameslink and the InterCity Express Programme for rolling stock procurement;
 - integrated delivery of projects;
 - whole industry strategy and funding; and
 - Network Rail sponsorship.
- 2.84 The government is considering moving the Rail Executive to a more 'arm's-length body' in 2016.

Transport Scotland

- 2.85 Transport Scotland was created in 2006 to carry out the transport functions of the Scottish Executive, including responsibility for devolved powers over rail franchising. Transport Scotland carries out appraisals of capital investment projects in the rail sector, advises on rail investment decisions and provides the specification of railway outputs to the Scottish government.
- 2.86 Transport Scotland is responsible for managing the ScotRail franchise in Scotland, which is worth around £2.5 billion over its ten-year term. FirstGroup ran the ScotRail franchise from 2004. The ten-year franchise was awarded to

⁵⁹ The franchising authorities for the London Overground and Merseyrail operations are Transport for London and Merseytravel respectively.

Abellio in October 2014 and commenced operations on 1 April 2015. At the end of the old ScotRail franchise, the Caledonian Sleeper (which operates overnight services from London to Scotland in both directions), became a separate franchise operated by Serco.

- 2.87 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 franchise. The DfT is obliged to inform and take full account of the views of the Chief Executive of Transport Scotland prior to approving any new commercial transactions that have a material impact on the Scottish network, while each body has to bring to the attention of the other, as a matter of urgency, any matter which has the potential of materially impacting upon the operation of rail services in Scotland or the planned investment programme.⁶⁰

Welsh government

- 2.88 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, which is due to be refranchised in March 2017 so that the new franchise may commence in October 2018.

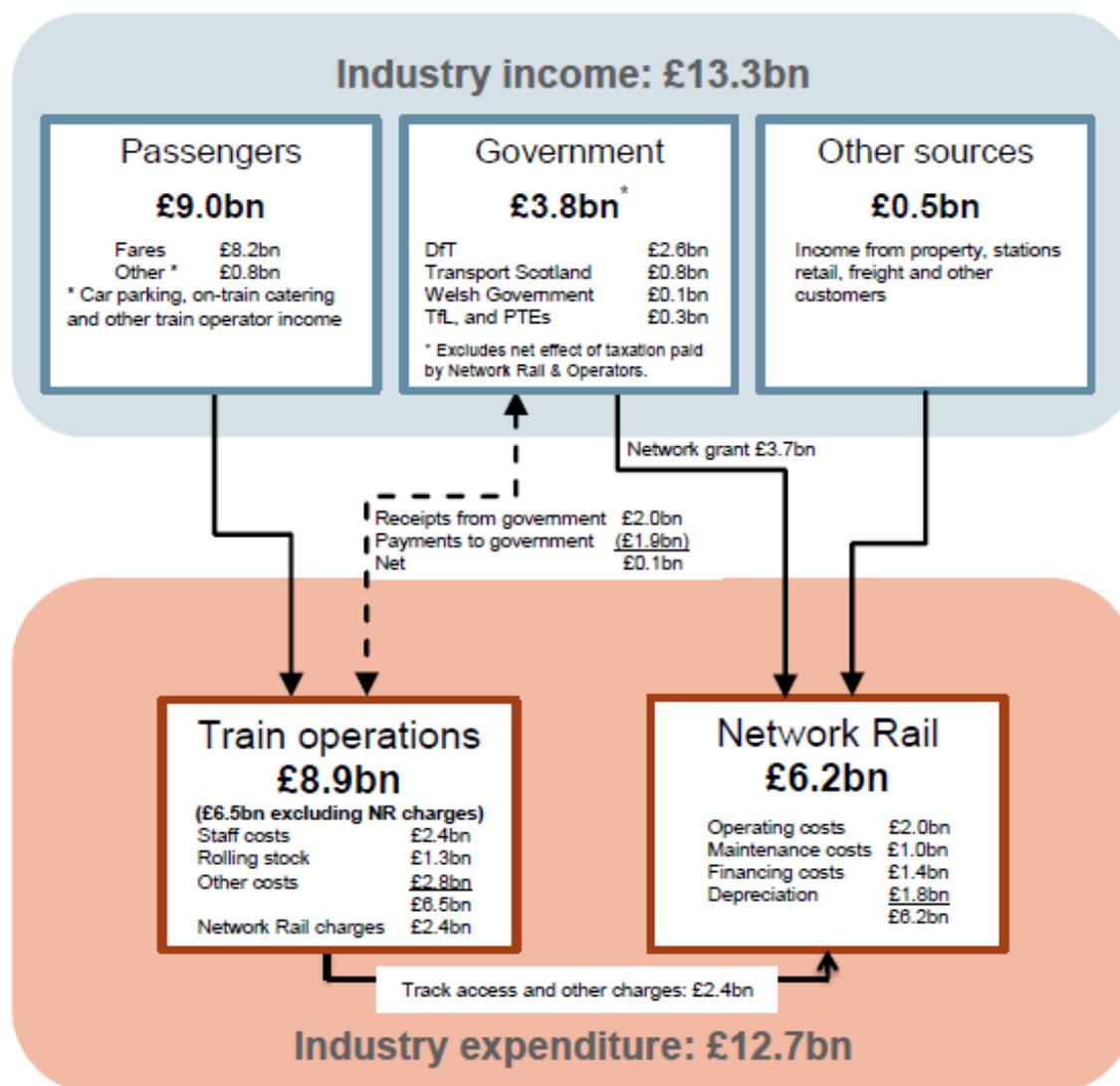
Funding of the rail industry

The rail industry's income and expenditure

- 2.89 Figure 1 sets out the rail industry's income and expenditure in 2013–2014.

⁶⁰ See paragraphs 22 and 24 of the Memorandum of Understanding between the Scottish Ministers and the DfT entered into in September 2014 following Network Rail's reclassification.

Figure 1: Rail income and expenditure in 2013–2014



Source: ORR (February 2015), GB rail industry financial information 2013-14.

Passenger revenue

- 2.90 In 2013–2014, the rail industry in Great Britain received £13.3 billion in income, of which 68% was from passengers (from fares, car parking and on-train catering), 29% from government and 4% from other sources such as property, retail and freight.⁶¹
- 2.91 Passenger fares contributed 61% (£8.2 billion) of the industry’s total income, of which unregulated fares accounted for 64% and regulated fares (ie fares capped under franchise agreements) for 36%. In both categories, discounted fares (eg advance, off peak and super off-peak) accounted for 42%

⁶¹ See ORR (February 2015), [GB rail industry financial information 2013-14](#).

(£3.3 billion). Passengers contributed another £0.8 billion through the payment of charges such as car parking and on-train catering.

2.92 The proportion of the rail sector's funding paid for by passengers is increasing. ORR analysis, adjusted for inflation, shows that:

- Funding from government sources decreased by 16.4% since 2010–2011. This equates to a 28.3% decrease in the government's financial contribution per passenger journey.
- Income from passengers increased by 10.8% since 2010–2011. This largely reflected the 16.6% increase in passenger journeys with the average fare per passenger journey decreasing by 5.0%.

2.93 The point has been made to us that, as passengers (rather than the government) are now responsible for funding the largest share of the industry's costs, that strengthens the case for passengers rather than government to have an increasing say in services – ie for greater passenger choice through on-rail competition, rather than service provision being specified almost exclusively by the government through the franchising process.

Government funding

2.94 Different parts of government contributed a total of £3.8 billion (29%) to the funding of the network. The main sources of government funding were the DfT (£2.6 billion), Transport Scotland (£0.8 billion) and the Welsh government (£0.15 billion). On a per journey basis, there were higher levels of government funding in Wales and Scotland than in England, varying from £1.88 per passenger journey in England to £7.77 per journey in Scotland and £9.18 per journey in Wales.

2.95 As a whole, the government contributed £3.7 billion to Network Rail through the network grant.⁶² Network Rail also received £2.4 billion in income from track access and other charges levied on train operators and £0.5 billion in income from other sources.

⁶² The government signalled its intention in the summer 2015 Budget to change the way in which it channels public money through the industry, directing funding through the TOCs instead of through the network grant, with the aim of encouraging customers of the railway to demand efficiency and the best use of scarce capacity on the rail network.

Franchises

- 2.96 In 2013–2014, TOCs paid £1.9 billion in premiums to government, whilst TOCs in receipt of subsidy received £2.0 billion. The government therefore made a net contribution of £0.1 billion to TOCs.⁶³ In effect, for the franchises operated by the DfT, the franchises received a total subsidy of 6.8 pence per passenger mile in 2013–2014.⁶⁴ This includes the subsidy paid directly to the TOCs by government and an allocation of the network grant (ie payments made directly to Network Rail).
- 2.97 During the period 2013–2014, three franchises (Thameslink Great Northern, South Western and East Coast) paid government a larger premium than the subsidies they received (ie they had a negative subsidy per passenger mile). Northern Rail received the highest subsidy per passenger mile of 51.5 pence.

Network Rail

- 2.98 Network Rail's income is derived from the following sources: (a) grants received from the DfT and from Transport Scotland (64% of its income), (b) its commercial property income (10% of its income) and (c) track access charges paid by TOCs and freight operators (26% of its income).⁶⁵ In addition, funds are received from debt issuance, with Network Rail having previously raised bonds in the capital markets supported by a UK government guarantee for the purposes of funding capital expenditure and refinancing existing debt. However, following reclassification, Network Rail will no longer issue bonds but will instead borrow £30.3 billion directly from the government through a loan facility designed to cover funding requirements for the period 2014–2019.⁶⁶
- 2.99 In its most recent Periodic Review (PR13) of Network Rail's funding and outputs, ORR assumed that for the five-year period from 2014 to 2019 approximately 30% of Network Rail's revenue would be derived from access charges, 60% from the network grant and the remaining 10% from other sources.⁶⁷ Over this period, the government has committed £18 billion, including for investments to modernise the network where this is most needed.⁶⁸

⁶³ TOCs bidding for franchises normally indicate whether they would be in a position to pay a premium to the franchising authority for the service awarded (or, in the alternative, if a subsidy payment would be required).

⁶⁴ See [Department for Transport Business Plan input indicator](#).

⁶⁵ ORR data.

⁶⁶ See [Network Rail: Debt Issuance Programme overview](#).

The DfT will decide whether to extend the Loan Facility Agreement by April 2017.

⁶⁷ ORR (October 2013), [Final determination of Network Rail's outputs and funding for 2014-19](#).

⁶⁸ Ibid.

Track access charges

2.100 Network Rail levies a number of charges on operators using the rail network. The main categories of charges are set out below:

- (a) **Variable track access charge (VTAC)** – this charge is related to the short-term cost of running an additional train over the track, reflecting the wear and tear incurred.
- (b) **Capacity charge** – this was introduced in 2002 as a way of reimbursing Network Rail for the additional delay costs associated with additional traffic as incurred under Schedule 8 of the track access agreements⁶⁹ (which compensate train operators for unplanned service disruption) due to the increased difficulty of recovering from incidents of lateness as the network becomes more crowded. This charge helps to neutralise the increased risk to Network Rail associated with Schedule 8 of accommodating additional traffic. Moreover, the charge aims to provide appropriate incentives and price signals to encourage train operators and funders to make efficient use of network capacity.
- (c) **Other charges** – other charges levied by Network Rail include electrification asset usage charge, traction electricity charge and certain freight-only charges (including a freight-specific charge and a coal spillage charge).
- (d) **Fixed track access charge (FTAC)** – this charge recovers Network Rail's residual funding requirements after taking into account the charges set out above and the network grant.

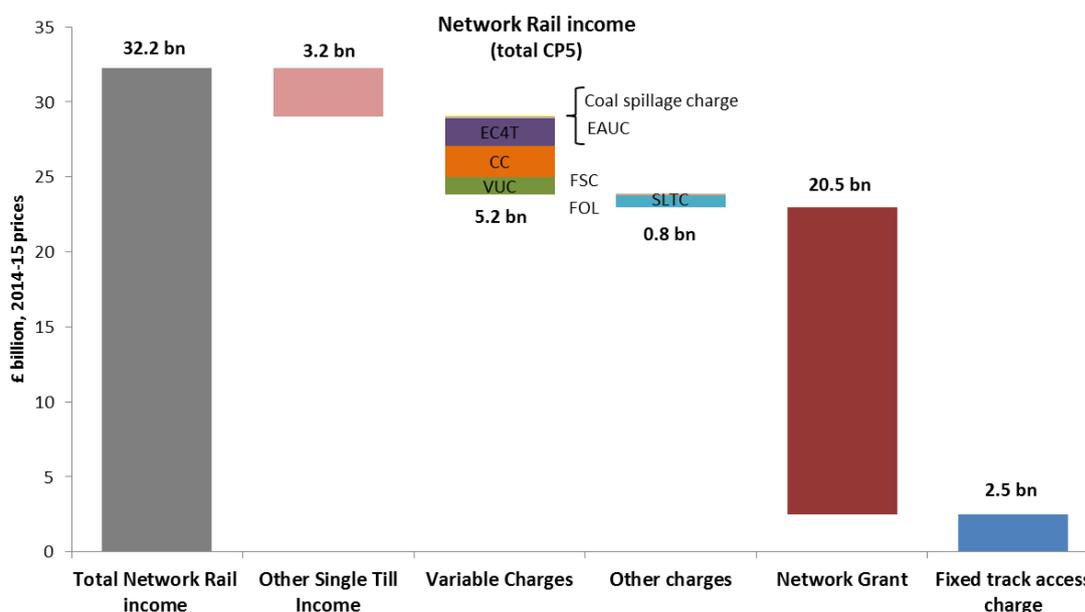
2.101 Different types of operator pay different charges. The charges payable are set out in the track access agreements that passenger and freight operators enter into with Network Rail. These agreements, which also specify the rights that train operators have to be allocated capacity on those parts of the network for which Network Rail is infrastructure manager, are approved by ORR. ORR

⁶⁹ Schedule 8 compensates train operators for the impact of unplanned service disruption due to poor performance. Disruptions can be attributable either to Network Rail or other train operators. Compensation payable covers fare revenue losses and costs (eg cost of running replacement bus services). The purpose of Schedule 8 is to ensure that train operators' exposure to risk is reduced. Losses incurred by train operators are covered by the organisation to whom the disruption is attributable rather than the train operator facing the disruption. By better understanding the impact of service disruptions on costs and revenues of train operators, Network Rail's decision-making can be positively influenced (eg noting where further investments are needed). Payments are calculated on the basis of predetermined formulae and are made when the performance of Network Rail or train operators diverges from a benchmark number of minutes of lateness. If performance is below the benchmark, compensation is paid to the train operator affected and if Network Rail or the train operator perform better than the benchmark, a bonus is paid by the train operator that benefits from this improved performance. See ORR (November 2012), *Consultation of Schedules 4 and 8 possessions and performance regimes*.

ensures that the framework of access charges set are consistent with EU law, including Directive 2001/14/EU. Specifically, it has to take into account the provisions of the Railways Infrastructure (Access and Management) Regulations 2005, which require, among others, that track access charges are non-discriminatory and transparent, ensuring on the one hand that train operators are not charged excessively high prices by Network Rail and on the other that the charges paid are sufficient to cover Network Rail's costs of running the network. Most track access agreements are entered into for a term of between five and ten years.

2.102 Figure 2 provides a breakdown of the different sources of Network Rail's income during CP5 (ie for the period 2014–2019), including from track access charges described above. The 'Other Single Till Income' referred to in Figure 2 primarily relates to income generated from the commercial exploitation of property owned by Network Rail.

Figure 2: Network Rail's current overall charging income*



Source: ORR.

*In this graph, the variable and other charges listed are the following: the electricity asset usage charge (EAUC), the traction electricity charge (EC4T), the capacity charge (CC), the variable track access charge (VUC) and the station long-term charge (SLTC), which recovers station building and information and security systems maintenance and repair costs.

Open access operators and franchised train operating companies currently pay different charges

2.103 Franchisees, OAOs and freight operators pay variable charges, whereas only franchisees pay FTAC too. The fact that OAOs do not pay FTAC is often cited as a reason to restrict the entry of OAOs in order to protect the funding of the network. However, in the current framework franchisee TOCs are indemnified against increases in access charges during their franchise.

- 2.104 In 2006, the then franchisee on the East Coast main line, GNER, brought a judicial review against the open access applications of Grand Central and First Hull Trains in the English High Court on the basis of an alleged illegality in ORR's policy of charging franchised and OAOs inconsistently.
- 2.105 The court noted that there was a critical distinction to be made between the circumstances in which franchises and OAOs access the network upstream.⁷⁰ Franchisees have very considerable advantages, including taking over established businesses, protections against variations in access charges and revenue protections such as cap and collar (now replaced by a GDP risk-sharing mechanism). The court decided that the different market conditions faced by the OAOs and the franchisees justified different charging regimes and also described FTAC as an 'artificial construct'.

Fare regulation

- 2.106 The Secretary of State has the power to regulate fares through franchise agreements where this is in the interests of passengers.⁷¹ Historically, regulated fares fall into two 'baskets' of fares: commuter fares and other protected fares.
- 2.107 Fare baskets are regulated by a cap on annual fare increases. For 2015, the amount at which an individual regulated fare can rise has been capped to the retail price index (which in July 2014 was 2.5%). We note that the new government has stated that it will not permit operators to raise regulated fares (the majority of which cover commuter routes) above the rate of retail price inflation over the next five years. In previous years, the cap was higher and franchisees were able to increase individual fares above the cap provided that the average fares across the basket stayed below the cap.
- 2.108 Fare baskets may include off-peak or super off-peak returns, 'anytime' day singles and returns and some season tickets outside urban areas, long-distance saver fares and shorter distance standard return fares.⁷² Approximately 45% of fares are subject to regulation.
- 2.109 Advance and first class tickets are not regulated. For long-distance journeys, 'anytime' single/return fares are usually unregulated as are off-peak day single/return tickets for shorter journeys. TOCs determine unregulated fares on a commercial basis and changes can be made during the franchise

⁷⁰ [Great North Eastern Railway Limited v The Office of Rail Regulation, Hull Trains Company Limited and Grand Central Railway Company Limited \[2006\] EWHC 1942 \(Admin\)](#).

⁷¹ See section 28 of the Railways Act 1993; also, the Transport Act 2000 and the Railways Act 2005.

⁷² See House of Commons note by Louise Butcher (8 January 2015), [Railways: fares](#), Business and Transport (SN1904).

agreement provided that the financial effect on the franchisee is neutral within the framework provided by the Ticketing and Settlement Agreement (see paragraph 2.111).

2.110 In Scotland, all ScotRail season tickets, all ScotRail off-peak returns as well as all fares in the Strathclyde area and standard singles, standard day returns and season tickets in the Edinburgh commuter area are currently regulated. These fares are set by Transport Scotland and are defined in the franchise agreement. Other fares for flows in Scotland are unregulated and can be set by the franchisee on a commercial basis. Transport Scotland does not set fares for cross-border services; rather these follow DfT's policy.⁷³ In 2015, ScotRail's off-peak tickets will remain frozen at 2013 levels and increases in peak fares will be capped to increase in line with inflation.⁷⁴

Other ticket regulations

2.111 Train operators are required to comply with arrangements relating to the creation of fares, including obligations around the creation of interavailable fares and through tickets. In order to support an integrated ticket retailing system, there are interoperator agreements that enable, for example, agreement on unified systems and the allocation of revenue. The key enabling document is the Ticketing and Settlement Agreement (TSA), which is entered into by all train operators.

2.112 The fares and retail regime is overseen by train operators who come together through various governance arrangements. For example, the Association of Train Operating Companies leads on changes to the TSA on behalf of the train operators and the Rail Settlement Plan facilitates integrated retailing and manages the allocation of revenue between train operators. National Rail Enquiries manages the National Rail Enquiries website and telephone service and manages some central industry data, such as real-time train information.

2.113 Under the TSA, train operators are obliged to offer at least one interavailable fare between each origin and destination point on the network. This fare is valid on any permitted route across multiple operator services. Interavailable fares are set by the lead operator (ie the operator with the greatest commercial interest on a certain route) and must be observed by all train operators selling tickets for that journey or operating a service on some or all of the route. Other operators, other than the lead operator, can set dedicated

⁷³ See Transport Scotland (November 2011), [Rail 2014 - Public Consultation](#).

⁷⁴ See Transport Scotland (5 December 2014): [Rail fares increases capped for Scottish passengers](#).

(ie unregulated) fares for travel only on their own trains at prices which are generally lower than the interavailable fare.

2.114 ORR is currently conducting a retail market review focused on who sells tickets, what tickets are sold, where and how tickets are sold, and the ticket format. ORR is considering the issues from the point of view of the industry regime – in particular, the rules and practices in which retailers (ie both TOCs and third party retailers) operate under when selling tickets in order to ensure that they are working to the benefit of passengers, the industry and taxpayers. ORR is consulting on its emerging findings, which were published in June 2015, until September 2015.

EU legislation

Background

2.115 Over the past two decades, the EU has developed a number of packages aimed at restructuring the European rail transport market in order to strengthen the position of railways in relation to other transport modes. The EU's efforts have concentrated on three major areas which are all crucial for developing a strong and competitive rail transport industry:

- opening the rail transport market to competition;
- improving the interoperability and safety of national networks; and
- developing rail transport infrastructure.⁷⁵

2.116 The First Railway Package, adopted in 2001, was the European Commission's first step in opening the European rail market to competition.⁷⁶ Some of the key features of the First Railway Package included the introduction of accounting separation between the infrastructure manager and operators (in Great Britain, of course, there is full separation between Network Rail as infrastructure manager and the train operators), a system for access charging, and non-discriminatory access to capacity and rail-related services. The First Railway Package was recast in order to clarify existing provisions relating to the funding and management of infrastructure, access to rail-related facilities (depots, maintenance, etc.) and the independence and competence of regulatory bodies. The recast directive (Directive 2012/34/EU)

⁷⁵ European Commission website: [Rail](#).

⁷⁶ European Commission (2009), 'Commission Warns Member States over Lack of Implementation of 'First Rail Package', Press Release IP/09/1438.

was finalised in November 2012 and is expected to be transposed into UK law by autumn 2015.

2.117 In 2004, the Second Railway Package was introduced, with the aim of reducing barriers to entry as a result of standards and rules specific to member states. This was through the establishment of the European Railway Agency to support interoperability in the market as well as providing safety and technical support. The Second Railway Package also liberated the market for freight transport in 2007.⁷⁷

2.118 The Third Railway Package, introduced in 2007, gave passenger railway companies the opportunity to compete on international routes, with the market for international passenger transport opening in 2010.

Proposed Fourth Railway Package

2.119 In January 2013, the European Commission proposed measures intended to bring a single European rail market a step closer.

2.120 The European Commission set out a number of problems that the Fourth Railway Package was designed to address.⁷⁸

- The first set of problems identified relate to access to the market for domestic passenger services as, unlike in Great Britain, many member states have not opened these markets to competition. The consequence of this is that significant differences exist between member states that have opened their market for domestic passenger services to competition and those that have not.
- The second set of problems relate to the governance of infrastructure managers, which are natural monopolies. The European Commission is concerned that infrastructure managers (as natural monopolies) do not always react to the needs of the market and its users, thus hindering the performance of the sector as a whole. Again, this problem does not arise in Great Britain, where Network Rail is a wholly separate entity from the operators of trains.

⁷⁷ Oxera (November 2013), 'Agenda – The Fourth Railway Package: does one size fit all?'

⁷⁸ European Commission (2013), 'Proposal for a Directive of the European Parliament and of the Council amending Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway area, as regards the opening of the market for domestic passenger transport services by rail and the governance of the railway infrastructure – explanatory memorandum', COM (2013) 29 final.

2.121 The ‘market pillar’ proposals for the Fourth Railway Package of the European Commission concentrate on four key areas:⁷⁹

- **Infrastructure governance** – the European Commission proposes to increase the role of infrastructure managers so that they control all the functions at the centre of the rail network.
- **Opening of the market for domestic passenger transport services by rail** – the European Commission is proposing to open up domestic passenger railways to new entrants and services from December 2019. Companies will be able to offer domestic rail passenger services across the EU either by offering competing commercial services for those that can be provided through open access (competition ‘in’ the market) or through transparent and cost-efficient award of public service contracts (competition ‘for’ the market). The opening of this market will be subject to the provision that the access granted must not compromise the ‘economic equilibrium’ of a public service contract.⁸⁰ As is currently the case for international rail passenger services, the relevant regulatory bodies will have the responsibility to determine whether the ‘economic equilibrium’ of a public service contract is compromised by undertaking objective economic analysis based on predetermined criteria.⁸¹ Therefore, under the current proposal, member states will not be obliged to liberalise domestic passenger railways to a greater extent than is currently the case in Great Britain.
- **Interoperability and safety** – the European Commission’s proposals seek a greater level of harmonisation at EU level in order to reduce administrative costs and to remove market access barriers.
- **The social dimension** – member states will be able to protect workers by requiring existing staff to be transferred to new contracts when public service contracts are transferred between suppliers.

2.122 The final wording for the legislative measures in the ‘technical pillar’ of the Fourth Railway Package was agreed on 17 June 2015 at an informal trilogue meeting between the Latvian Presidency of the EU, the European Parliament’s Transport and Tourism Committee and the European Commission. On 30 June 2015, the Council of the European Union confirmed

⁷⁹ European Commission (2013), ‘The Fourth Railway Package – completing the Single European Railway Area to foster European competitiveness and growth’, COM (2013) 25 final.

⁸⁰ Ibid.

⁸¹ See proposed amendment to Article 11 of Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway area, as regards the opening of the market for domestic passenger transport services by rail and the governance of the railway infrastructure.

that an agreement was reached with the European Parliament on faster and less burdensome vehicle authorisation and safety certification procedures for European railways (together the updated interoperability and safety directives and European Railway Agency regulation make up the 'technical pillar').

2.123 The 'market pillar' is, however, still at a much earlier stage: both Parliament and Council have yet to define their final positions.

2.124 Although the rail system in Great Britain is already compliant with most aspects of the Fourth Package, there are a number of areas in which the UK is continuing to focus negotiations to ensure that:

- the proposals are compatible with 'alliance agreements' in place between Network Rail and individual train operators, which aim to facilitate more integrated working on specific projects in order to achieve cost savings (eg finding ways of better managing stations, ensuring engineering works are better planned or improving train punctuality);⁸²
- infrastructure managers can continue to subcontract work or lease assets to other bodies;
- large rail franchises linking England with Scotland or Wales are permitted; and
- the ability to make direct awards of rail franchises (see paragraph 2.25) for over two years is retained in case of a problem with the franchising system.

2.125 The proposed recast of Directive 2012/34/EU establishing a single European Railway Area and the right of access for domestic passenger services could require the adjustment of the current NPA rule, depending on the criteria that are ultimately applied as part of the 'economic equilibrium' test.

⁸² [Network Rail: Alliances](#).

3. On-rail competition in the current framework

The current extent of on-rail competition

3.1 In 2013–2014, OAOs accounted for just under 0.7% of all rail miles in Great Britain, and just under 1% of passenger rail miles. Freight operators ran 26.1 million miles, accounting for 7.6% of all services. Table 2 sets out the data on train miles by category of operator in 2013–2014.

Table 2: Rail miles in Great Britain in 2013–2014

<i>Operator type</i>	<i>Rail miles (in millions)</i>	<i>% of network</i>
Franchises	315.2	91.7
OAOs	2.3	0.7
Freight operators	<u>26.1</u>	<u>7.6</u>
Total	343.6	100.0

Source: Network Rail data from ORR data portal.

- 3.2 In addition to competition between OAOs and franchisees, on-rail competition is also present where franchises overlap or run parallel to each other. Overlapping franchises are defined as those where more than one operator serves passengers on a flow using the same track. Parallel franchises are defined as those where more than one operator serves a flow between an origin and destination, but using a different line (eg London–Birmingham with Chiltern Railways or via the West Coast line).
- 3.3 Table 3 below sets out the overlapping and parallel rail franchises in Great Britain. The list of overlaps is based on the May 2015 franchise map.⁸³

⁸³ www.projectmapping.co.uk.

Table 3: Overlapping and parallel franchises in Great Britain

<i>Overlapping and parallel franchises</i>	<i>Flows</i>
Great Northern and Virgin East Coast	London to Stevenage and Peterborough
Great Northern and Abellio Greater Anglia	London to Cambridge
London Midland, Chiltern Railways and Virgin Trains	London to Birmingham
London Midland and Virgin Trains	London to Milton Keynes, Coventry, Rugby, Nuneaton, Tamworth, Lichfield, Stafford, Crewe and Stoke-on-Trent Rugby to Coventry, Birmingham and Wolverhampton
Thameslink and East Midlands Trains	London to Luton and Bedford
c2c and Abellio Greater Anglia	London to Southend
South West Trains and Southern	London to Portsmouth London to Southampton London to Epsom, Dorking and Guildford
South West Trains and First Great Western	London to Reading and Exeter London to Bristol London to Basingstoke
Cross Country, First TransPennine and Virgin East Coast	York to Newcastle (and between Cross Country and Virgin on services north to Edinburgh)
London Midland, Virgin Trains and Arriva Trains Wales	Birmingham to Wolverhampton and Shrewsbury
East Midlands Trains, Cross Country and Abellio Greater Anglia	Peterborough to Ely
Cross Country and Abellio Greater Anglia	Ely to Norwich
Cross Country and First Great Western	Taunton to Tiverton, Exeter and stations to Plymouth and Penzance and between Reading, Oxford and Banbury Reading to Basingstoke
First TransPennine, East Midlands Trains and Northern Rail	Liverpool to Manchester
First TransPennine and Northern Rail	Manchester to Leeds and York Blackpool to Manchester
First TransPennine and Virgin Trains	Wigan to Preston, Carlisle and Glasgow
Arriva Trains Wales and Virgin Trains	Chester to Holyhead
Arriva Trains Wales and First Great Western	Newport to Cardiff, Swansea and Carmarthen
Virgin Trains/Virgin East Coast, Cross Country and ScotRail	Edinburgh to Glasgow
Virgin East Coast, Cross Country and ScotRail	Edinburgh to Aberdeen
Virgin East Coast and ScotRail	Edinburgh to Aberdeen and Inverness
South West Trains and Cross Country	Basingstoke to Winchester, Southampton and Bournemouth
Southern, Thameslink and Gatwick Express	London to Gatwick Airport and Brighton
Abellio Greater Anglia and Cross Country	Cambridge to Stansted Airport
First Great Western and Southern	Brighton to Southampton
London Midland, Cross Country and Virgin Trains	Coventry to Birmingham, Wolverhampton, Stafford
London Midland and Chiltern	(Leamington and) Birmingham to Kidderminster

Source: CMA analysis.

3.4 The extent of competition on overlapping and parallel franchises varies significantly according to the frequency of the overlapping services and the extent of journey time differentials between operators. Competition on the

overlapping routes set out in Table 3 is considered in further detail in Chapter 4 below and in Appendix C.

Potential for greater on-rail competition – network capacity and technology

- 3.5 Many parts of the rail network in Great Britain are characterised by capacity constraints which limit the opportunity for train operators to compete for passengers by running additional services. This is of particular concern on commercially viable routes for which there is unmet demand.
- 3.6 A combination of technological change and investment in the rail network may create greater availability of capacity on the network and so increase opportunities for new entry and more on-rail competition in the future. Moreover, there is potential for load factors on trains to increase at certain times of day, particularly in the off-peak period, allowing more passengers to be carried on existing services without expanding capacity (we note that load factors increased in the European air transport sector following liberalisation and the introduction of new competition).
- 3.7 This opportunity was highlighted in ORR's most recent long-term regulatory statement which noted that new capacity and new signalling technology that allows much more dense use of network capacity will open up new route paths that could allow greater on-rail competition between operators.⁸⁴
- 3.8 The following paragraphs describe a number of projects that will increase capacity on the rail network in more detail.

Enhancements in the 2014–2019 Control Period

- 3.9 In 2012, the Secretary of State for Transport issued a statement setting out to ORR what should be achieved on the rail network in Great Britain during CP5 (ie the five-year period in respect of which ORR sets access charges) from 1 April 2014 to 31 March 2019.⁸⁵ This is known as the High Level Output Specification (HLOS).

⁸⁴ ORR (July 2013), Opportunities and challenges for the railway – the ORR's long-term regulatory statement.

⁸⁵ DfT (16 July 2012), [High level output specification 2012](#).

- 3.10 The HLOS was formulated on the basis of the Route Utilisation Strategies (RUS) devised by the industry for each of the network's ten routes.⁸⁶ The government's strategic intent is to ensure that, until completion of High Speed 2 (HS2), the network is developed to shoulder increasing demand, but then quickly adapt and integrate around the high capacity HS2 corridor.⁸⁷
- 3.11 In response to the government's HLOS and as part of ORR's periodic review of Network Rail's revenue requirements for CP5, Network Rail published its Strategic Business Plan for England and Wales in January 2013. Network Rail is committed to delivering HLOS outputs and, in particular, it plans to improve the capacity and capability of the railway by delivering 20% more morning peak seats into central London and 32% more peak seats into major regional cities by the end of CP5 (moving 225 million more passengers per year).⁸⁸
- 3.12 Network Rail's outputs and milestones for every project through CP5 are set out in its CP5 Enhancements Delivery Plan, which was published in December 2014.⁸⁹ The enhancements planned for CP5 are designed to meet the additional passenger demand forecast over the period, as set out in Table 4.

Table 4: Estimated future demand for rail services in 2018–2019

HLOS	Peak three hours*		High peak hour	
	Forecast passenger demand in 2013–2014†	Extra passenger demand to be met by 2018–2019	Forecast passenger demand in 2013–2014	Extra passenger demand to be met by 2018–2019
Major cities‡				
London	539,300	119,000	268,500	54,200
Birmingham	37,500	3,900	19,200	1,800
Leeds	25,400	5,100	13,000	2,800
Manchester	28,100	6,200	13,600	2,600
Others	34,800	4,900	16,500	2,000

Source: Network Rail.

*The peak three hours covers all weekday services timetabled to arrive in the morning between 0700 and 0959; the high peak hour covers all weekday services timetabled to arrive in the morning between 0800 and 0859.

†Birmingham stations are: New Street, Snow Hill and Moor Street; Manchester stations are: Oxford Road, Piccadilly and Victoria; Leeds is the single station; other urban areas are Bristol, Leicester, Liverpool (excluding Merseyrail), Newcastle, Nottingham and Sheffield, because these cities are current significant users of rail for commuting.

‡All forecast figures relate to franchised passenger services.

⁸⁶ RUS process applied to existing services, identifying capacity requirements and proposing interventions to meet them. RUSs will gradually be replaced by the Long Term Planning Process (LTPP). This 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.

⁸⁷ High Speed 1 (HS1) is the railway between St Pancras in London and the Channel Tunnel and connecting the UK with international high-speed routes.

⁸⁸ Network Rail (January 2013), [Strategic Business Plan for England & Wales](#), pp3, 11 & 66.

⁸⁹ Network Rail (December 2014), [CP5 Enhancements Delivery Plan](#). The Enhancements Delivery Plan together with the Delivery Plan, which was published in March 2014 and updated in March 2015, sets out the projects that Network Rail will deliver over CP5. It is the 'contract' against which ORR will measure Network Rail's performance and is also intended to assist train operators, funders and stakeholders to plan their businesses with a reasonable degree of assurance in CP5.

- 3.13 By April 2019, Network Rail is required to deliver a range of improvement works, including upgrading station facilities (such as introducing access arrangements and toilets), implementing schemes that will allow longer or more trains to run (for example, longer platforms), introducing electrification to enable more reliable electric trains with faster acceleration to run and meeting power supply demands from increases in capacity.
- 3.14 For CP5, the planned enhancement works include nearly £6 billion of enhancements that had already started or that had been committed by government from previous announcements.⁹⁰ The projects to which funding is already committed include the following:
- **Thameslink** – increasing capacity on the Thameslink route from north to south through central London. The upgrade, due to be completed in 2018, will include a major rebuild of London Bridge station, platform lengthening to accommodate new 12 coach trains, station upgrades and new operating technology (including new signalling and train automation) in central London to facilitate a metro-style service of up to 24 trains per hour in each direction.
 - **Crossrail** – this is a new integrated railway route through central London from Reading and Heathrow Airport in the west to Shenfield in the north-east and Abbey Wood in the south-east. When Crossrail opens in 2018, it will increase London’s rail-based transport network capacity by 10% and dramatically cut journey times across the city. Crossrail will deliver new train services and reduced journey times with up to 24 trains per hour between Paddington and Whitechapel during peak times.
 - **Great Western electrification** – extending electrification of the Great Western main line into Wales, allowing for electric services to operate, will reduce costs and increase capacity as new trains will be able to accelerate and stop more quickly. The reliability of services is also expected to increase. The work between London and Bristol, including Newbury and Oxford, will be completed by 2016, with the route to Cardiff electrified by 2017.
 - **Reading** – station redevelopment and track configuration. The new layout and viaduct to the west of Reading to take fast main lines over freight and relief lines was completed at Easter 2015 (12 months ahead of schedule) and will increase capacity and reduce delays.

⁹⁰ Network Rail, Strategic Business Plan for England & Wales, January 2013, pp46 & 67.

- **North West electrification** – overhead electrification and associated power supplies and distribution along a number of north eastern routes will improve travel between Manchester, Liverpool, Preston, Blackpool, Leeds and York. In June 2015, the Secretary of State for Transport announced that the electrification project would be paused while more ambitious plans (such as the Northern Hub referred to below) were pursued, although electrification was likely to form part of future plans.⁹¹
- **Northern Hub** – a project of targeted upgrades enhancing the network between and into Liverpool, Manchester, Manchester Airport, Leeds and other destinations in the North of England. The project includes new track, infrastructure upgrades, platform lengthening and upgraded stations. Scheduled to complete in 2019, it will allow up to 700 more trains to run each day and provide space for 44 million more passengers a year.
- **InterCity Express Programme** – enhancement works (including traction power supply capability) to introduce InterCity Express trains up to 260 metres long to replace the current fleet of High Speed Trains (sometimes known as the ‘InterCity 125’ fleet) on the Great Western main line from 2017 and East Coast main line from 2018 onwards.

3.15 Over £6 billion of additional enhancements are required under the HLOS, including the following:

- **Electric Spine** – a major north–south rail electrification enhancement to improve regional and national connectivity, creating a high-capability 25kV electrified passenger and freight route from the south coast via Oxford and the Midlands to South Yorkshire. The majority of the work was due for completion in 2019, but is currently paused on the Midland Mainline section while work to improve line speeds is instead prioritised.
- **London Waterloo** – a project is under way to provide additional capacity at Waterloo station and its approaches to meet increased demand. Signalling upgrades on the Wessex line are also under way.
- **Western access to Heathrow Airport** – a new rail tunnel leaving the Great Western main line between Langley and Iver to Heathrow Airport, allowing passengers to travel to the airport from Reading via Slough without going into Paddington station. Work is due for completion by 2021.

⁹¹ Secretary of State for Transport’s Statement on Network Rail’s performance, 25 June 2015.

- **Welsh Valleys electrification** – a project to electrify the Great Western main line as far as Carmarthen and to electrify valley lines will improve reliability and increase capacity.
- 3.16 The HLOS sets out a number of further capacity enhancement schemes, including improvements such as new junctions on routes including the West Coast main line and the Anglia route.
- 3.17 A separate Strategic Business Plan was prepared by Network Rail for Scotland in response to Scottish Ministers' HLOS. The Scottish Ministers' HLOS requires over £1.4 billion of capacity and capability enhancements, including the Edinburgh to Glasgow Improvements Programme which involves electrifying the route between Scotland's two major cities, providing faster services.⁹²

Longer-term enhancements

- 3.18 By 2035, the rail industry aspires to deliver capacity that will accommodate twice as many passengers as today.⁹³

European Rail Traffic Management System

- 3.19 The rail industry will move from conventional signalling to the European Rail Traffic Management System (ERTMS). ERTMS consists of two basic components: the European Train Control System, which is an automatic train protection system (often known as 'in-cab signalling'); and GSM-R, a radio system for providing voice and data communication between the track and the train. In essence, a computer in the driver's cab supervises the speed of the train, taking into account the movement of other trains on the railway. Using this technology, trains can run faster and closer together. The system will also be able to recover quickly from delays.
- 3.20 The introduction of ERTMS will not itself solve bottlenecks at stations and junctions. The mix of traffic that the rail network must carry (including suburban, regional, intercity and freight) may also restrict the extent to which capacity can be fully utilised. However, we were told by Network Rail and ORR that, on balance, ERTMS can offer some increase in capacity relative to the current system.

⁹² Network Rail (January 2013), [Strategic Business Plan for Scotland](#), pp49 & 66.

⁹³ This includes capacity generated by HS2.

HS2

- 3.21 HS2 – the proposed high-speed network linking London with the Midlands and the North – is being developed by the DfT and High Speed Two Limited (HS2 Ltd). HS2 Ltd, an executive non-departmental public body sponsored by the DfT, is funded by a grant-in-aid from government and performs both a delivery and advisory role in the development of the high-speed rail network.⁹⁴ The plan is for HS2 to introduce approximately 352 miles of new track linking London (Euston) to Birmingham and Birmingham to Manchester and Leeds.⁹⁵
- 3.22 The budget for HS2 is £42.6 billion over 20 years, including contingency of £14.4 billion.⁹⁶ Construction is due to commence in 2017 and will be completed in two phases. Phase One (London to Birmingham) is scheduled to open in 2026 and Phase Two (Birmingham to Leeds) in 2033.
- 3.23 HS2 could treble the number of passenger seats on trains into London Euston once in full operation (increasing peak-hour seats from 11,300 to 34,900) and almost double the number of trains per hour on the West Coast main line. The initial Phase One service plan for HS2 could see seating capacity double in 2026 (and more than double where the crowding pressure is greatest). At peak times, up to 18 trains could be scheduled to run per hour in each direction with trains able to carry as many as 1,100 passengers.⁹⁷
- 3.24 HS2 will relieve the conventional rail lines from London to the north of England, including the West Coast, Midland and East Coast main lines. The conventional lines will still be used for commuter and regional services and by services calling at stations between key cities such as London and Birmingham. Whilst the degree to which conventional intercity services will compete with HS2 services remains to be seen, completion of HS2 represents a significant addition to the capacity of the rail network in Great Britain.

⁹⁴ See [HS2 website](#).

⁹⁵ See DfT (11 September 2013), [High Speed Two: an engine for growth](#).

⁹⁶ The DfT has made the point that there are potential risks to the HS2 business case, such as reduced timetable coordination, that could arise from greater on-rail competition. The DfT also made the point that open access competition could limit the government's ability to secure the financial benefits of the major, upfront investment.

⁹⁷ *Ibid.*

4. Evidence of potential passenger benefits from greater on-rail competition

Introduction

- 4.1 Passenger train operators face strong competition ‘for’ the market in bidding to run franchises, with franchise competitions consistently attracting a number of credible bidders. In 2014, three companies successfully pre-qualified to bid for the InterCity East Coast franchise (namely, FirstGroup, Keolis/Eurostar and Stagecoach/Virgin). During the same year, three companies were also shortlisted to run the Northern (Abellio, Arriva and Govia) and TransPennine Express franchises (FirstGroup, Keolis and Stagecoach) after having successfully passed the pre-qualification stage.
- 4.2 As we have noted, they face a small level of competition ‘in’ the market from ‘on-rail’ competitors – whether open access, or overlapping or parallel franchises.
- 4.3 Moreover, franchisees often face a further degree of competitive constraint from other modes of transport, depending on the particular routes they serve. For example, on routes from London to Scotland, franchisees face competition from airlines and from long-distance coaches. Indeed, on many long-distance flows there is significant competition from coach transport. (Within some of these modes there is strong competition with, for example, five airlines competing on the London–Edinburgh route). On local flows, franchisees may face competition from local bus services.
- 4.4 This chapter considers the potential benefits that greater on-rail competition can bring in addition to competition from other modes of transport, examining examples of direct competition ‘in’ the market in:
- Transport markets where there is ‘in’-market competition, such as:
 - the Great Britain rail freight sector (which, following privatisation, is fully open access);
 - the experience of EU airline deregulation; and
 - the introduction of new competition between London’s airports.
 - On-rail competition in Great Britain from open access showing that OAOs, notwithstanding their current limited role:

- compete with franchisees on price, frequently offering lower dedicated fares both for ‘walk-up’ and advance fares;
- have developed improvements to service levels and introduced innovations, including selling a wider range of tickets on-board, free wi-fi and new information systems (this is reflected in high passenger satisfaction); and
- have generated growth in the market for rail travel and delivered wider economic benefits;
- On-rail competition in Great Britain from overlapping and parallel franchises showing that:
 - there are examples of on-rail competition between franchisees leading to price competition, with other franchisees offering lower fares than the lead operator across a range of season tickets, ‘walk up’ fares and advance fares; and
 - franchisees are generally able to compete mainly on price given that service quality, timetables and innovation are determined through franchise specification. However, where franchise agreements are less specified (such as the Chiltern Railways franchise), there is evidence that on-rail competition between franchisees has also led to improved service quality and innovation.
- On-rail competition in other European countries, including Austria, the Czech Republic, Germany, Italy and Sweden:
 - on-rail competition has delivered significant benefits for passengers, including lower fares, increased service frequency and customer service innovations;
 - the introduction of on-rail competition has taken place on some of the most geographically important routes in each country, indicating the trust placed in the ability of on-rail competition to deliver benefits that outweigh any risks; and
 - due to differences between the structure of the rail sector in Great Britain and many other European countries, we consider the evidence of on-rail competition in other European countries to be relevant and informative but not determinative.

4.5 Across numerous industries exposed to competitive pressures for the first time, the benefits of competition in terms of innovation, service quality

improvements and lower prices have materialised over a number of years as incumbents and new entrants compete to win customers. The benefits of this dynamic competition are difficult to forecast in advance of market opening and are generated by firms adopting new strategies in order to win market share, with competitors responding by improving their offering.

- 4.6 None of these examples offers a precise analogy. There are, inevitably, material differences between different transport sectors, and between different operators. In the nature of things, it is not possible to conduct a laboratory experiment of the effects of introducing a significantly increased degree of on-rail competition in passenger train services. But, making due allowances for these factors, we think that the evidence in this chapter taken together is richly suggestive of the significant benefits that could be obtained from greater on-rail competition alongside competition ‘for’ the market.

The Great Britain rail freight sector

- 4.7 As set out in Chapter 2, freight train services in Great Britain operate on an entirely open access basis, ie there is full competition ‘in’ the market, rather than ‘for’ the market. There are currently seven separate rail freight operators in Great Britain. Services are not specified by government and freight operators are not subsidised, other than indirectly through lower track access charges and taxpayer funded enhancements.⁹⁸
- 4.8 In common with OAOs, freight operators pay variable charges, but not FTAC. For freight-only lines, certain parts of the rail freight industry, including those transporting coal for the electricity supply industry, spent nuclear fuel and iron ore, pay a mark-up above the variable charges in the form of the freight-specific charge. Freight operators also pay certain other charges, such as the coal spillage charge. The McNulty Report observed that ‘by paying its wear and tear costs, rail freight ensures that the network provider is no worse off from the existence of freight than from its absence’.⁹⁹ However, the fixed costs of the network are still essentially paid for by taxpayers (through the network grant) and passengers (through franchisees’ FTAC payments) rather than by freight operators.

⁹⁸ ORR (January 2013), [Conclusions on variable usage charge and freight specific charge](#), p16.

⁹⁹ DfT (May 2011), [Realising the Potential of GB Rail Report of the Rail Value for Money Study](#), p226 (detailed report).

Competition between freight operators

- 4.9 The rail freight sector is characterised by high levels of competition between freight operating companies (but also between rail freight and road haulage). Since privatisation, the industry has achieved growth of over 70% with the revenue of rail freight operators increasing by 44%.¹⁰⁰
- 4.10 The increase in rail's share of land freight, from about 8% in 1995 to 11% in 2013 was achieved against the backdrop of decline in heavy industry.¹⁰¹ In contrast, the nationalised French and Spanish rail freight sectors have seen relative modal share decline since the late 1990s.¹⁰²
- 4.11 Forecasts indicate that rail freight is expected to grow by a further 30% in the five years from 2014.¹⁰³ In the longer term, Network Rail forecasts that rail freight volumes could more than double over the next 30 years.¹⁰⁴
- 4.12 The market shares of freight operators have changed significantly as a result of competition and new entry since privatisation. New entrants, such as GB Railfreight, have won market share from DB Schenker (formerly known as EWS), which has been active in Great Britain since privatisation. For example, in 2005–2006, DB Schenker had a market share of 65%, which fell to 45% by 2013–2014 primarily as a result of competition from other freight operators.¹⁰⁵
- 4.13 The success of new entrants is often attributed to their focus on providing customer care at competitive prices. It was suggested to us that flexible working practices among drivers, including flexibility in rostering and drivers taking on additional duties (including dealing with customers), was a key part of the strategy to deliver an efficient service that is competitive on price.

The efficiency of the rail freight sector

- 4.14 The competitive environment has forced rail freight to find significant efficiencies over recent years and it has encouraged Network Rail to do the same. The DfT's 2012 report entitled *Reforming our Railways: Putting the Customer First* highlights the fact that, unlike franchisees, freight operators are subject to access charge variations at regulatory reviews. As a result, freight operators engaged considerably with ORR and Network Rail during

¹⁰⁰ Rail Delivery Group (14 May 2014), [Keeping the lights on and the traffic moving: Sustaining the benefits of rail freight for the UK economy](#).

¹⁰¹ Network Rail, Long Term Planning Process: Freight Market Study, October 2013, p20.

¹⁰² Rail Delivery Group, p12.

¹⁰³ MDS Transmodal.

¹⁰⁴ Rail Delivery Group, p8.

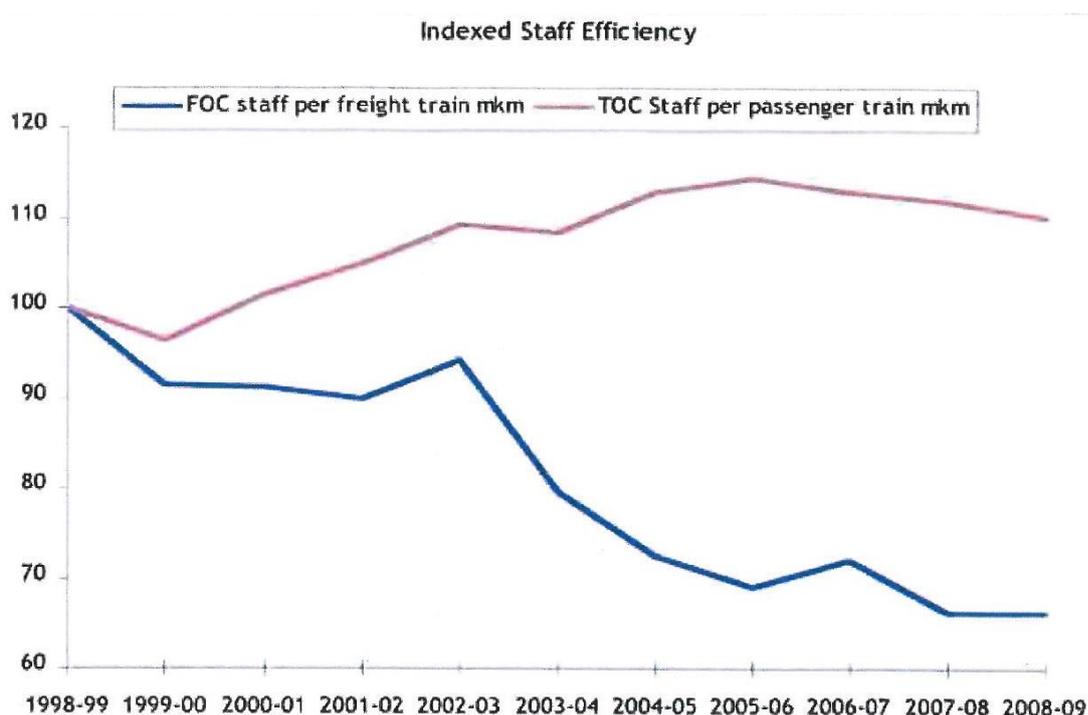
¹⁰⁵ Market share calculated on the basis of train mileage. See [ORR and NRT Data Portal](#).

periodic reviews in 2003 and 2008, pushing hard to challenge Network Rail's costs.¹⁰⁶ The DfT's report goes on to state that, in an industry that has had difficulty in reducing costs, freight has made good progress and that the government seeks to repeat this approach with similar success for passenger services.

4.15 The McNulty Report also considered the efficiency of the rail freight sector and highlighted the fact that, since 1997, rail freight traffic increased and unit costs fell as freight operating companies invested in new rolling stock and entered different market segments.¹⁰⁷ Freight operators increased their load usage. For example, GB Railfreight increased its load usage from 667 million gross tonne miles during 2005–2006 to 3,142 million gross tonne miles by 2013–2014.¹⁰⁸

4.16 According to the McNulty Report, staff productivity increased in rail freight while, as illustrated in Figure 3 below, in the rail passenger sector staff productivity has slightly decreased.¹⁰⁹ The McNulty Report notes that this may be due to the greater effect of competition on freight operating companies.

Figure 3: Staff productivity – freight and passenger operating companies 1998–2009



Source: McNulty Report.

¹⁰⁶ DfT (March 2012), *Reforming our Railways: Putting the Customer First*, Cm 8313, p50.

¹⁰⁷ DfT (May 2011), *Realising the Potential of GB Rail Report of the Rail Value for Money Study*, p22.

¹⁰⁸ Ibid. Gross Tonne Miles (GTMs) is the mileage for each locomotive, wagon or coaching stock multiplied by the weight for each relevant vehicle.

¹⁰⁹ Ibid.

- 4.17 Lodge (2013) also highlights the efficiencies achieved by the rail freight sector, pointing to data indicating that freight operating companies reduced their unit costs by 35% between 1998–1999 and 2008–2009 as a result of competition while in the rail passenger sector costs increased by 10% over the same period.¹¹⁰ Rail freight traffic increased by 50% since privatisation with half the number of locomotives and two-thirds of the wagons used at the time moving a greater volume of goods.¹¹¹
- 4.18 Freight operators have striven to minimise costs in order to ensure the competitive pricing of rail freight distribution compared with road, given that rail freight customers are price-sensitive and there are low switching costs between modes.¹¹²
- 4.19 Competition also appears to have spurred investment. Rail freight operators have continued to invest in the sector, investing £2 billion in new locomotives, wagons and other capital equipment since privatisation.¹¹³ During CP4 (2009–2014), Network Rail and government made investments of over £500 million to improve freight capacity and performance.

Conclusion

- 4.20 The rail freight sector is an example of a fully open access rail environment. Competition ‘in’ the market developed strongly after privatisation, with new entrants successfully winning market share from incumbents. This competition appears to have generated benefits, including improved staff productivity and investment which enables prices to be kept down and service standards to improve. In common with OAOs, freight operators determine their timetables, subject to securing access to the network, and are free from franchise specification.
- 4.21 Although we were told that freight is less subject to the constraints of timetabling than passenger services, it was also put to us that rail freight is subject to strict commercial and contractual requirements requiring the goods be delivered ‘just in time’. For example, supermarkets transport fresh and frozen goods by rail and, in the intermodal market segment (eg shipping containers), services run to a regular timetable.

¹¹⁰ Lodge, T (March 2013), *Rail’s second chance: Putting competition back on track*, Centre for Policy Studies, p36.

¹¹¹ *ibid*, pp37 & 38.

¹¹² Rail Delivery Group, p17. Road transports 89% of the goods moved; the remaining 11% are moved by rail.

¹¹³ Rail Delivery Group, p21.

- 4.22 While there are clearly differences between the structure of the freight and passenger rail sectors, the case study of the rail freight sector provides a valuable illustration of how competition 'in' the market can realise benefits in the rail sector.

The experience of EU airline deregulation

- 4.23 The airline industry in Europe was deregulated in the 1990s and, as reported by Coles (2004), this led to a major reduction in fares as well as an increase in the number of routes and choice of carrier.¹¹⁴ Low cost airlines emerged and, by 2003, they controlled 24% of the UK international market and 32% of the domestic market, leading to an average reduction in fares of 75% and contributing to an increase of 78% in the number of flights.¹¹⁵ The emergence of low-cost airlines has led to many passengers travelling from their local airports, increasing the range of flights available from regional airports.¹¹⁶
- 4.24 Low cost airlines can sustain cheaper fares as their costs are lower than those of traditional airlines.¹¹⁷ Costs are minimised by paying staff lower wages, performing ticket sales and issuing boarding passes online, requiring passengers to pay separately for food and beverages and using secondary airports. In order to compete with low-cost airlines, traditional airlines have also cut costs by adopting some of these practices and this has led to a fall in average one-way fares paid by UK-based passengers for both business and leisure travel, as shown in Figure 4 below.¹¹⁸

¹¹⁴ MVA Consultancy (in association with Leeds University's ITS), *Assisting Decisions: Modelling the Impacts of Increased On-rail Competition through Open Access Operation*, Report for the ORR, July 2011.

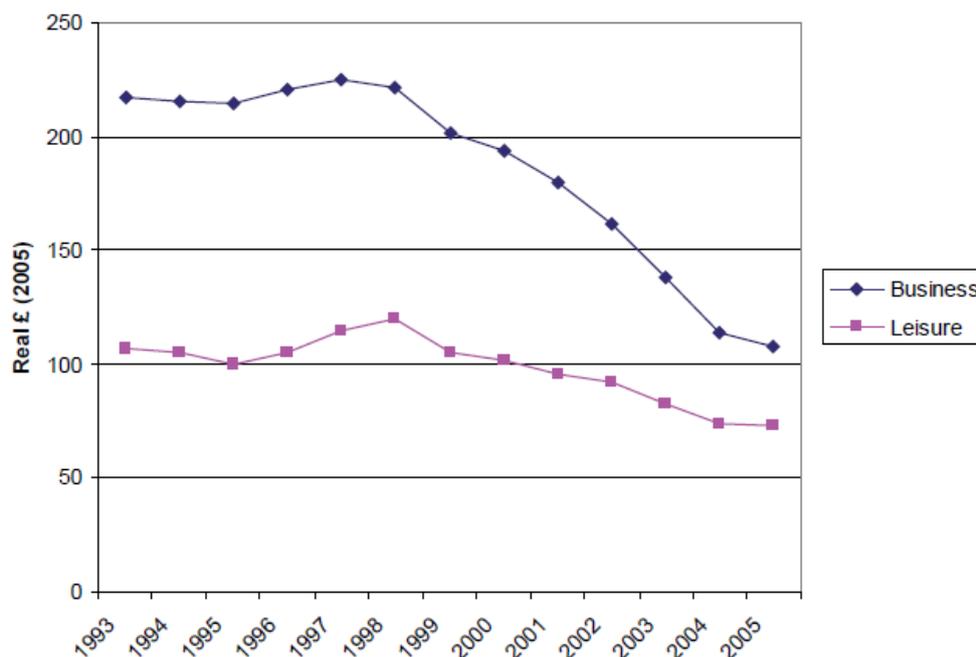
¹¹⁵ Ibid.

¹¹⁶ CAA (2006), *No-frills carriers: Revolution or Evolution? A study by the Civil Aviation Authority*, Chapter 1, p2.

¹¹⁷ Ibid, Chapters 1 and 3.

¹¹⁸ Ibid, Chapter 4, p12.

Figure 4: Average one-way fares paid by UK passengers (UK-EU) by purpose of travel, 2005 prices



Source: International Passenger Survey, ONS.

4.25 The experience of the airline industry in Europe illustrates that competition ‘in’ the market can lead to a reduction in costs and lower fares, while also leading to improved services, the development of innovative business models and growth in the market overall.

Dynamic competition: the Gatwick Airport example

4.26 In order to assess the benefits of dynamic competition being introduced in a transport market, we examine the introduction of competition between London’s Gatwick and Heathrow airports following the break-up of BAA.¹¹⁹

4.27 Gatwick Airport was owned by BAA until its divestiture was ordered by the Competition Commission in March 2009 following a market investigation into the supply of airport services by BAA in the UK.¹²⁰ At the time, BAA also owned Heathrow, Stansted, Southampton, Glasgow, Edinburgh and Aberdeen airports. Gatwick Airport was acquired in 2009 by Global Infrastructure Partners. The sale of Gatwick Airport was part of a package of remedies devised to address the adverse effects on competition found by the

¹¹⁹ The British Airports Authority (BAA) was established by the Airports Authority Act 1965 but, as part of the Government’s privatisation plans, it was dissolved and its property, rights and liabilities transferred to BAA under the Airports Act 1986. Following incorporation in 1985 and flotation in 1987, BAA was acquired by the Spanish company, Ferrovial, in 2006.

¹²⁰ The Office of Fair Trading made a market investigation reference in this case to the Competition Commission in March 2007 under section 131 of the Enterprise Act 2002.

Competition Commission to be arising from BAA's common ownership of airports in the South East of England and lowland Scotland.

4.28 Following its sale to Global Infrastructure Partners, Gatwick Airport developed its offering in response to competition and there is also evidence of a competitive reaction by Heathrow Airport:

- **New routes and customers** – in targeting Heathrow Airport's full-service long-haul airlines, Global Infrastructure Partners focused on developing its performance, capacity utilisation and facilities to accommodate new aircraft types such as the A380. Gatwick Airport developed new international air links by securing new customers including from Air Asia, Air Berlin, Garuda Indonesia, Hong Kong Airlines, Norwegian, Korean Airlines and Vietnam Airlines. Some of the new business was on point-to-point routes not previously served from the UK. Heathrow Airport responded to Gatwick Airport's strategy and won back Vietnam Airlines. The Korean Airlines service did not survive following a new British Airways service from Heathrow Airport to Seoul. In the low-cost short-haul sector, easyJet launched a successful service to Moscow competing against services from Heathrow Airport.
- **New transfer service** – in order to assist airlines to establish new long-haul services from Gatwick Airport, a new commercial strategy was devised which included developing a transfer service called 'Gatwick Connect' in order to allow passengers to transfer between flights more easily (eg from an easyJet short-haul flight to a Virgin Atlantic long-haul flight). The service involves Gatwick Airport transferring passenger luggage between flights and was developed as a competitive response to Heathrow Airport's Flight Connections Centre. It is used by easyJet, Norwegian and Virgin Atlantic.
- **Improved resilience** – Global Infrastructure Partners also invested in facilities to minimise closure time following natural events (eg snow storms and volcano ash). It reviewed the operations of Scandinavian airports and purchased snow ploughs from Zurich airport. During the snow storm that hit the UK in 2010, Gatwick Airport closed for only four hours, while Heathrow Airport remained closed for four days. Heathrow Airport responded by purchasing snow ploughs (although the readily available second-hand stock had, by that time, been secured by other airports).
- **Improved services and new innovations** – other benefits to service quality deriving from greater competition include Gatwick Airport's introduction of:

- (a) new services for passengers with reduced mobility (to which Heathrow Airport responded by developing its own offering);
 - (b) new passenger security and family assistance lanes, reflecting Gatwick Airport's sizeable leisure market;
 - (c) improved South Terminal search security facilities;
 - (d) innovation in the development of a premium area security lane;
 - (e) establishing an airport welcome service with staff trained in tourism management; and
 - (f) adopting a new commercial retail strategy in an attempt to attract high-value customers from Heathrow Airport.
- **New infrastructure** – in addition, Gatwick Airport invested in infrastructure developments in order to enhance the quality and competitiveness of its service offering, including:
 - (a) an improved station at Gatwick Airport – Global Infrastructure Partners worked with Network Rail to develop new platforms, investing £8.5 million in order to facilitate passenger access to the airport;
 - (b) new restaurants and bars; and
 - (c) new terminal floors, lighting and toilets.

4.29 Heathrow's service offering also developed following competition with Gatwick.

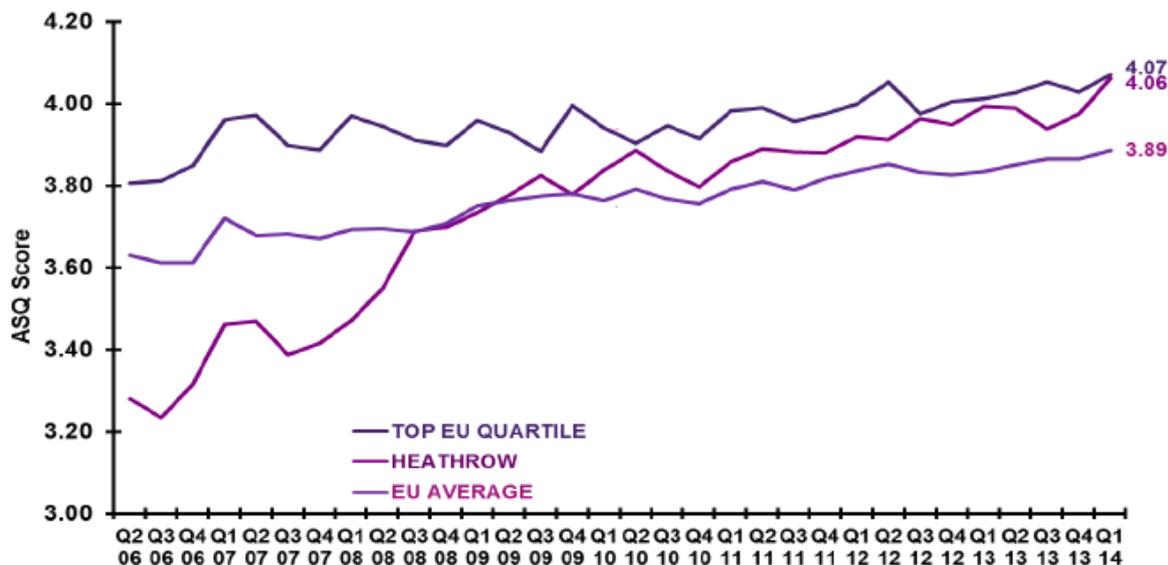
4.30 Following the divestiture of Gatwick Airport in 2009, Heathrow Airport invested a total of £5.9 billion to improve quality of passenger services, enhance resilience and provide additional capacity and improve overall airport efficiency.

4.31 Heathrow Airport's passenger satisfaction continued to increase following the new investment (having started to rise following the opening of Terminal 5), as illustrated in Figure 5 below which shows a constant increase of Heathrow Airport's passenger satisfaction score (measured by way of a satisfaction index, the Airport Service Quality (ASQ)¹²¹ score). Heathrow Airport's passenger satisfaction index overtook the EU average in 2009 and almost

¹²¹ ASQ is a survey programme developed and implemented by Airports Council International and provides passenger research and insights.

matched the top quartile of European airports' satisfaction in Q1 2014 (the satisfaction gap was reduced to only 0.01 points).¹²²

Figure 5: Heathrow Airport's overall satisfaction: ASQ trend Q2 2006 to Q1 2014



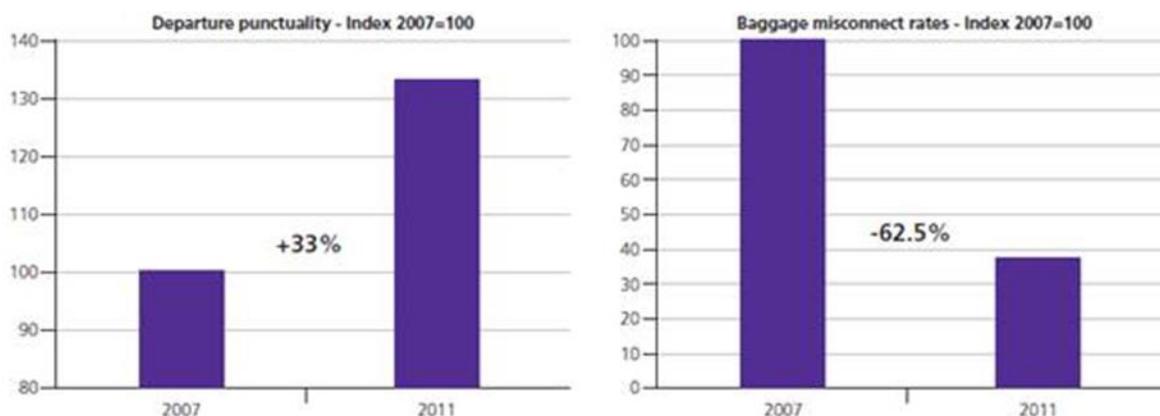
Source: Heathrow Commercial Passenger Services/ASQ Q1 2014 Update.

4.32 In addition to making new investment, Heathrow Airport adopted a new commercial strategy, which included improvements to:

- the cleanliness and security at all of the airport's terminals;
- the departure lounge at Terminal 3 and improvements to the security screening process; and
- departure punctuality and baggage handling, in coordination with the airlines, as shown in Figure 6 below.

¹²² Heathrow Airport, Q6 Strategic Capital Business Plan, July 2014.

Figure 6: Departure punctuality and baggage misconnection rates



Source: ACI's ASQ survey to Q1 2012.

4.33 Finally, a new Terminal 2 opened at Heathrow Airport in 2014, replacing the old terminal, which was the first to operate at Heathrow Airport. In addition to improving the quality of service, the new terminal enhanced connectivity by co-locating Star Alliance members that fly from Heathrow Airport. The Terminal 2 programme included £2.5 billion worth of investments which, in addition to the new terminal, provided:

- a new satellite pier, T2B;
- a new multi-storey car park granting direct access to the terminal;
- a reconfigured road layout to give passengers a more free-flowing journey around the central terminal area and into Terminal 2;
- a new cooling station and energy centre aimed at enhancing the sustainability of the airport's activity; and
- an upgraded departure and transfer baggage system.

Conclusion

4.34 The example of competition between London's Gatwick and Heathrow airports demonstrates that innovation, service quality improvements and lower prices may materialise over a number of years when dynamic competition is significantly increased and incumbents and new entrants compete to win customers.

On-rail competition in Great Britain

4.35 The following paragraphs consider evidence about the benefits that the existing degree of on-rail competition has delivered by examining:

- fares, satisfaction, service quality and innovation on routes where there is competition between OAOs and franchisees;
- fare competition where overlapping and parallel franchises operate (the degree of franchise specification restricts the range of factors on which franchisees can compete); and
- the impact of changes in the degree of on-rail competition, for example, where changes to the geography of franchises have introduced or eliminated on-rail competition.

Competition between open access operators and franchisees

4.36 As discussed in Chapter 2 above, First Hull Trains and Grand Central currently compete with Virgin East Coast on the East Coast main line. The following paragraphs consider the benefits arising from competition between OAOs and franchisees in the current model of (limited) open access operations.

4.37 The current limited scale of on-rail competition in Great Britain constrains the extent to which one can draw conclusions about what would happen if the scale of on-rail competition were to increase materially. Nevertheless, there are a number of concrete examples of the benefits of current open access rail competition in Great Britain, including in relation to fares, service quality and innovation.

First Hull Trains and Virgin East Coast (London to Stevenage, Grantham, Retford and Doncaster with one daily overlap to Hull)

4.38 First Hull Trains is now a joint venture between FirstGroup (as 80% shareholder), which operates franchises in Great Britain including the Greater Western franchise and (through a joint venture) the TransPennine Express (see Chapter 2, Table 1) and Renaissance Trains. It was the first OAO in Great Britain, entering the sector with direct services between London and Hull in 2000. FirstGroup acquired its interest in Hull Trains in 2003 and the company was rebranded in 2008 as First Hull Trains.

4.39 First Hull Trains competes with Virgin East Coast on a number of flows on the East Coast main line. First Hull Trains also competes with Grand Central on the flows from London to Grantham and Doncaster.

Impact on fares

- 4.40 First Hull Trains offers dedicated fares in competition with Virgin East Coast. In addition to offering a range of advance tickets, First Hull Trains offers super off-peak, off-peak and anytime 'walk-up' tickets which are generally priced below the fare set by the lead operator (with respect to interavailable fares). For example, from London to Doncaster, the super off-peak single offered by First Hull Trains is priced at £62 against an interavailable super off-peak single priced at £82.10. From London to Hull, the same ticket types cost £78.00 and £96.80, respectively. On the London–Grantham flow, the operators also compete on price. For example, First Hull Trains offers the dedicated anytime single ticket at a price of £51.50 against the corresponding interavailable ticket, which is priced at £67.
- 4.41 Although the dedicated fares sold by First Hull Trains are only valid on their own services, passengers benefit from the availability of cheaper fares which, in turn, may also constrain the fare set by the lead operator in the case of interavailable tickets.
- 4.42 First Hull Trains also competes with Virgin East Coast on the price of dedicated advance tickets. Passengers booking advance tickets with either operator are restricted to travelling on a specific train but benefit from lower prices as a result of competition.
- 4.43 First Hull Trains introduced a 'carnet' ticket for business passengers that it claims offers savings of up to 50%. ORR noted in the emerging findings of its retail market review that OAOs offering such products may also encourage competing franchisees to offer similar products, citing the example of Virgin East Coast offering carnet tickets to business passengers through its website.¹²³
- 4.44 The degree of price competition between First Hull Trains and the franchisee may be expected both due to the need for First Hull Trains to win passengers by undercutting the incumbent franchisee in order to ensure that its services remain commercially viable (as an OAO service it would not be subsidised if it entered financial difficulty) and the fact that, as an OAO, First Hull Trains has lower costs, including lower access charges, than the franchisee.

¹²³ ORR retail market review, emerging findings (June 2015), paragraph 3.8.

Impact on service levels and innovation

- 4.45 First Hull Trains also competes on service and innovation. First Hull Trains identified a number of examples, including:
- an innovative passenger information system (incorporating ATOC's Darwin system and GPS tracking) which provides real-time information on board the train including the progress of the service, expected arrival times at stations, information on connecting trains and performance updates on the London Underground. First Hull Trains cited its freedom from the need to amend a franchise agreement as facilitating this innovation;
 - introducing new rolling stock with 125mph capability, more seats and higher specification without government subsidy;
 - great Britain's first 4G enabled Single Sign Up wi-fi service on all trains with free access for all passengers; and
 - access to a selection of the latest ITV programmes on board.
- 4.46 First Hull Trains is also pursuing a project to electrify the line from Selby to Hull using predominantly private sector finance. The scheme will allow for the introduction of new electric trains which would reduce journey times. Once completed it is expected that Network Rail would take over maintenance with the special purpose company that funded and delivered the upgrade being paid an access fee by First Hull Trains and the other operators on the route to recoup its investment.
- 4.47 Passenger surveys consistently rank First Hull Trains as one of the leading rail operators in terms of overall passenger satisfaction. The National Rail Passenger Survey published in spring 2015 indicated that 94% of passengers were satisfied with First Hull Trains, the joint highest score across all operators (alongside Grand Central and Heathrow Express – which both operate on an open access basis – and Virgin East Coast, the only franchisee exposed to on-rail competition from OAOs).¹²⁴ The Which? March 2015 Train Satisfaction Survey ranked First Hull Trains as the operator with the second highest customer score in Great Britain, taking into account factors including the availability of seating, cleanliness, frequency, punctuality, reliability and value for money.¹²⁵

¹²⁴ National Rail Passenger Survey, Transport Focus, spring 2015.

¹²⁵ Which? Train Satisfaction Survey, March 2014.

Impact on passenger usage

- 4.48 Analysis of on-rail competition by Ove Arup for ORR¹²⁶ found that journeys from stations served by both the incumbent and First Hull Trains increased at a faster rate than most of the control stations. The increase in revenue yield (ie the increase in average fare per passenger) was also smaller at stations with competition (Grantham, Doncaster and Hull) than on the control flows. Arup also cited a number of softer benefits of competition in its study, including additional car parks.

Wider economic impact

- 4.49 In terms of the wider economic benefits of the service, Arup notes that prior to the introduction of First Hull Trains, the Hull and Humber Ports City Region was one of the few major urban areas in Great Britain that was not served by direct connections to London. The new services created major opportunities for business in London, with people able to arrive in the capital before 0930 and to travel back in the evening.

Grand Central and Virgin East Coast (London to York and Northallerton, London to Doncaster and Wakefield with one daily overlap to Bradford)

- 4.50 Grand Central is a subsidiary of Arriva UK Trains (which is itself a subsidiary of the main German national rail operator Deutsche Bahn); Arriva also operates franchise services in Great Britain (see Chapter 2, Table 1). Grand Central competes with Virgin East Coast on a number of flows on the East Coast main line in addition to serving stations, such as Sunderland, which currently have no other services to London.

Impact on fares

- 4.51 Grand Central offers dedicated fares as part of its strategy of competing with Virgin East Coast.
- For example, Grand Central offers a dedicated anytime single fare from London to York for £83.10, whilst the interavailable fare set by the lead operator is £124.50. Although the dedicated fares limit the number of services on which a passenger may travel (to five per day in the York example), Grand Central told us that the majority of its passengers travel

¹²⁶ Ove Arup & Partners Ltd (December 2009), On Rail Competition Analysis Key Findings.

using dedicated tickets. The availability of cheaper dedicated tickets may also constrain the interavailable fare set by the lead operator.

- For peak travel from London to York, a dedicated advance single ticket on Grand Central is available from £20.80, whereas the dedicated advance single ticket on Virgin East Coast is available from £49.50.
- In contrast, for travel from London to Manchester on the West Coast main line where there is no on-rail competition (a similar distance as from London to York), the cheapest peak time advance single is £105.00.
- Which? also considered the fare differentials on the London–York flow, finding that that Grand Central’s ‘walk-up’ tickets are cheaper than those of Virgin East Coast.¹²⁷ For example, Grand Central also sells a dedicated off-peak single valid in the peak period. The cheapest walk-up ticket for the 0802 Grand Central London to York service is therefore only £55.40, whereas the cheapest walk-up single valid on the 0800 Virgin East Coast service costs £124.50.
- As set out above under the consideration of the competitive effects of First Hull Trains operating on the East Coast main line, price competition between the OAO and franchisee may be expected as the OAO needs to win business by undercutting the incumbent franchisee in order to remain commercially viable and due to the fact that the OAO has lower costs (including through paying lower access charges than the franchisee).

Impact on service levels and innovation

4.52 Grand Central also competes with Virgin East Coast on service quality and innovation. The following examples were cited by Grand Central:

- Grand Central was the first company to offer free wi-fi to all passengers. The incumbent lead operator at the time, GNER, responded by offering wi-fi (although, in contrast to Grand Central, it charged passengers in standard class to use wi-fi).
- Grand Central introduced a ‘carnet’ ticket offer where a book of 20 fully flexible tickets is sold at a 25% discount. GNER responded by offering its own carnet.

¹²⁷ Which? (March 2015), Trains Satisfaction Survey, Save money on your route.

- GNER increased the number of advance tickets that it sold on the East Coast main line. Grand Central responded by increasing the number of advance tickets that it offered for sale.
- When Grand Central launched its services from London to York, the incumbent responded by adding additional services to York. We were told that the capacity required to run the additional services was identified partly as a result of the increased competitive pressure on the route. The additional capacity has generated benefits for all passengers on the route both in terms of increased frequency and crowding relief.
- Grand Central makes its full range of walk-up tickets available for sale on the train. In contrast, it is common for franchisees to sell only the most expensive tickets available for a given journey if passengers do not purchase a ticket before boarding.
- Grand Central's service to Bradford is, itself, an example of innovation. The introduction of the service required the refurbishment of Wakefield Kirkgate station and the use of a former freight-only line to Bradford.

4.53 Passenger surveys consistently rank Grand Central as one of the leading rail operators in terms of overall passenger satisfaction. The National Rail Passenger Survey published in autumn 2014 indicated that 94% of passengers were satisfied with Grand Central, the joint highest score across all operators (alongside First Hull Trains and Heathrow Express – which both operate on an open access basis – and Virgin East Coast, the only franchisee exposed to on-rail competition from OAOs).¹²⁸ The Which? March 2015 Train Satisfaction Survey ranked Grand Central as the operator with the highest customer score in Great Britain, taking into account factors including the availability of seating, cleanliness, frequency, punctuality, reliability and value for money.¹²⁹

Impact on passenger usage

4.54 Grand Central commissioned AECOM to examine the impact of on-rail competition on market growth between 2007–2008 and 2011–2012. Passenger journeys, revenue and yield at stations with competition (namely Peterborough, Grantham, Retford, Doncaster, Wakefield, York and Northallerton) were compared with the corresponding data at stations without competition (namely Newark, Leeds, Darlington, Durham, Newcastle, Berwick

¹²⁸ National Rail Passenger Survey, Transport Focus, spring 2015.

¹²⁹ Which? (March 2014), Train Satisfaction Survey.

and Edinburgh). We recognise that analysis of this kind can be sensitive to the methodology used, and that ORR and AECOM have had some analytical differences regarding this to date.¹³⁰ We comment on the implications of this when outlining AECOM's key findings below. We also note that ORR has recently commissioned new work to establish the volume of new passenger growth generated by OAOs on the East Coast main line.

4.55 AECOM's analysis found that, on average:

- passenger journeys grew by 42% at stations with competition compared with 27% at stations without competition;
- over the same period, revenue increased by 57% at stations with competition compared with 48% at stations without competition; and
- revenue yield (ie average fare per passenger) therefore rose more slowly at stations with competition, increasing by 11% over the period, as compared with stations without competition where revenue yields rose by 17%.

For the reasons described above, it is possible that these figures may slightly overstate the benefits competition has brought in this area if, for example, some of this growth in passenger numbers was abstracted from other stations which are not included in the sample.

4.56 It is also worth noting a couple of further grounds for interpreting the findings with some caution. First, some of the benefits in terms of higher passenger numbers may be because stations in the sample that have competition now have a direct connection, rather than because there is competition. Second, AECOM compiles data which could be used as a control to account for the impact of changes in demand, namely employment and population growth, but does not use this in its analysis.

4.57 In conclusion, however, we consider that the general direction of these effects found by AECOM are likely to be correct for three reasons. First, the results are in line with those found by Arup (2009) using a somewhat different methodology, as discussed below. Second, these figures are based on averages from a number of stations, and so passenger growth caused by abstraction from one station to another station would be more likely to be cancelled out and so not have an overly positive effect on the average values.

¹³⁰ The principal discussion corresponds to accurately capturing how passengers may be switching stations to take advantage of new services, and whether these are properly accounted for rather than classed as genuinely new passengers. Discussion of this can be found in this [letter](#) describing the ORR's 2014 decision on an Open Access application on the West Coast Main Line.

Finally, they are in line with economic theory, which would normally suggest that introducing competition lowers prices and raises passenger numbers.

- 4.58 AECOM also compared revenue yield trends at Northallerton and York for the financial years ending April 2008 and April 2012. The results indicated that Grand Central entered the market at a higher average fare than East Coast on journeys from London to York and Northallerton as it did not offer heavily discounted advance purchase tickets (although its walk-up dedicated fares were cheaper than those of East Coast). However, competition led to yields on both operators' services falling over the period. In constant prices, overall average yield fell by 10% at York and by 13% at Northallerton. This contrasts with increasing average fares at East Coast main line stations where there was no competition.
- 4.59 In order to examine the extent to which OAOs could grow the market through introducing new direct services, AECOM examined revenue growth at Thirsk, Eaglescliffe, Hartlepool and Sunderland. Over the period from 2007 to 2014, revenue grew by 552% from £1.4 million to £9.1 million. While this success is remarkable, it is worth considering how widely applicable it may be. We are aware that there may have been particular circumstances which led to success in this area, namely a large underserved population, with no previous direct service to London, and, at Eaglescliffe in particular, good car parking facilities allowing passengers from a large new catchment area to be attracted. Therefore, it seems reasonable to us to consider that introducing competition can have positive effects in terms of growing the market, but that this may not be of the same magnitude as the results at these four stations.
- 4.60 In 2009, Arup examined the impact of the launch of Grand Central's services between London and Sunderland in December 2007 (the work predated the increase in Grand Central's frequency and the launch of its services to Bradford). Arup's analysis, commissioned by ORR, was consistent with the results of the AECOM work, finding that passenger growth from Northallerton and York to London (where Grand Central competed with the incumbent operator) significantly outperformed control flows despite similar levels of regional economic growth. The improvements could not be fully explained by a reduction in generalised journey time. Lower fares enabled Grand Central to grow its market share, whilst extra capacity offered by Grand Central offered benefits to customers.

Overlapping and parallel franchises

- 4.61 This section considers the degree of on-rail competition on overlapping and parallel franchises, the extent of which varies significantly according to the

frequency of the overlapping services and the extent of journey time differentials between operators.

- 4.62 In contrast to OAOs, which are free from franchise specification, the factors on which franchisees are able to compete is restricted due to the detail of the franchise specification (for example, in relation to service quality). Franchisees are, however, free to compete on fares, although the lead operator providing interavailable tickets may only offer permanent dedicated advance fares in addition to those that are interavailable (ie it cannot offer dedicated anytime or off-peak fares).
- 4.63 Appendix C examines the current extent of competitive interaction between overlapping and parallel franchises across each of the overlaps. A number of themes emerge from this analysis:
- The degree of price competition between franchisees on overlapping and parallel franchises appears to depend on journey distance, relative journey times, frequency of services, the nature of the franchisees (eg whether the franchisees are long-distance or commuter operators) and the extent of franchise specification.
 - Where franchisees compete on shorter distance flows, such as between London and Cambridge and London and Peterborough, the franchisee competing with the lead operator typically offers a lower dedicated walk-up fare in competition with the lead operator's interavailable fare. This offers passengers a greater range of fare options, including a number of cheaper fares, and may also constrain the lead operator's unregulated fares. In the Cambridge and Peterborough examples, commuters benefit from cheaper season ticket options.
 - In a number of cases, franchisees competing with the lead operators that offer interavailable tickets operate a slower service than the lead operator, particularly where the lead operator is running an intercity service and the competitor a commuter or regional service. In some of these examples, the franchisee with the slower service appears to offer deep discounts, particularly on advance tickets. Where there is competition on parallel franchises, for some passengers, the franchisee with the longer journey time may still offer a shorter overall journey time given the location of the stations relative to the passenger's ultimate origin and destination.
 - Long-distance intercity franchisees competing on overlapping flows appear to primarily compete on the price of their dedicated advance tickets, particularly where journey times are similar on both franchises. This appears to generate passenger benefits by way of lower fares.

- Competition between overlapping and parallel franchisees appears to be most intense where the franchises are loosely specified or where significant changes in franchises and/or access rights were permitted. For example:
 - (a) Chiltern Railways has a relatively loose franchise specification and was incentivised to invest in new rolling stock, launch free wi-fi, introduce new timetables and improve line speeds in order to compete with Virgin Trains on the London–Birmingham route in response to the introduction of Virgin’s new ‘very high frequency’ high-speed timetable following the West Coast main line upgrade. Chiltern Railways’ customers benefited from lower fares, refurbished rolling stock, improved services and faster journey times and the total market for rail traffic between London and Birmingham grew.
 - (b) London Midland increased its service frequency on services from London to Birmingham and North West England through changes to its access rights and enhancements to its rolling stock to allow 110mph running. The new rolling stock also offered tables and power sockets throughout. This has enabled London Midland to compete effectively with Virgin Trains on both price and service, delivering greater choice, enhanced service frequency and lower fare options for passengers.
- The frequency of overlapping services is likely to have an impact on the intensity of price competition. Competition between franchisees appears to be less intense where one of them runs only an infrequent service.

Changes to the level of franchise overlap

4.64 There have been a number of changes to the degree of on-rail competition in recent years as the geographic reach of franchises changes and as OAOs introduce new services. Although the previous section indicates that there remain a number of franchise overlaps on which operators compete, the number is less than in previous years following a policy introduced by the SRA to simplify the franchise map and to seek to have a single franchise operator at each London terminus station (see paragraph 1.20).

Ove Arup analysis of changes to franchise overlaps

4.65 The effect of some of these changes in overlap is considered by Arup (2009) in the study referred to above. The three case studies are considered below.

Ipswich to London: Anglia Railways and National Express East Anglia

- 4.66 Prior to the formation of the London and Eastern Railways ('One') franchise, Anglia Railways and First Great Eastern competed on flows between London, Colchester and Ipswich. Evidence from Arup's analysis found that the timetable changes resulting from the introduction of a single operator meant that service characteristics deteriorated for passengers. In particular, service frequencies reduced and journey times were extended and the number of seats per hour reduced. Passenger growth at Ipswich and Colchester was lower compared with control flows and revenue yields (ie average fare per passenger) increased at a faster rate compared with Norwich and Stowmarket. Passenger satisfaction scores¹³¹ slightly deteriorated and some softer measures delivered by one operator before competition was removed were affected. However, service performance levels¹³² improved.

Reading to London: First Great Western and South West Trains

- 4.67 The extent of on-rail competition on this flow was reduced following the merger of Thames Trains into the Great Western franchise in 2004, first as First Great Western Link and then as part of the enlarged Greater Western franchise. Prior to the changes, First Great Western was the dominant operator, with Thames Trains attracting about a third of the total revenue on the flow. The revenue allocated to South West Trains, which runs a much slower service, was negligible. Arup's analysis is inconclusive as to the impact of the changes following the removal of competition. Service frequencies did not change and the overall change in revenue yield affecting Reading was similar to that at Maidenhead (a control flow). There was an improvement in service performance levels, although there was a deterioration in passenger satisfaction.

Gatwick Airport to London: Thameslink and Southern

- 4.68 Arup examined the lessening of on-rail competition brought about by the amalgamation of Gatwick Express services within the Southern Railway franchise in June 2008. Whilst there were no significant changes to the timetable or passenger growth trends, subsuming Gatwick Express into Southern led to a large increase in yield (ie average passenger fares) between 2008 and 2009 affecting Gatwick Airport, significantly larger than on

¹³¹ The survey measures passenger satisfaction of the on-train and station environments, eg train or station cleanliness and the helpfulness and attitude of train or station staff.

¹³² This is reflected in Public Performance Measure (PPM) data, which is calculated from the percentage of planned trains that are neither cancelled nor late.

the control flows. Service performance increased although passenger satisfaction reduced.

Summary

- 4.69 Arup examined only three of the many changes in franchise overlaps that resulted from the SRA's policy decision to reduce the number of franchises. Two case studies suggested that average fares (measured as overall revenue yield) increased after the franchise overlaps were removed, whilst the other did not find an overall change compared with the control flow. Service performance increased in the three examples, although passenger satisfaction decreased.

Recent changes to overlapping franchises

- 4.70 There have been a number of further changes to the degree of on-rail competition in recent years. One example is the award of the new Thameslink, Southern and Great Northern franchise to Govia in September 2014.
- 4.71 The new franchise will remove on-rail competition between First Capital Connect and Southern including between London and Gatwick Airport, Three Bridges, Haywards Heath and Brighton. However, we were told by the DfT that a deliberate decision was taken to have only one operator running through the Thameslink cross-London section during the Thameslink upgrade programme in order to reduce the risk to the delivery of the project. We were also told that the new franchise is designed in such a way that it can be split again in the future following the completion of the upgrade work.
- 4.72 In terms of the impact on fares, we note that, following the award of the new combined franchise, cheaper fares offered by Thameslink (the operator replacing First Capital Connect) will rise over time to harmonise with Southern's fares.
- 4.73 Which? notes that Thameslink offers a London–Brighton off-peak ticket at £17.10 against £26.70 on Southern and that the cheaper fare may be lost after harmonisation. An annual season ticket between Brighton and London will cost £4,304 when the cheaper dedicated £3,640 season ticket is withdrawn whilst, from Three Bridges to London, the cheapest season ticket would be £3,392 per year, an increase of £436 on the dedicated fare.

On-rail competition in other European countries

Introduction

- 4.74 On-rail competition has developed in a number of other European countries, in particular in Austria, the Czech Republic, Germany, Italy and Sweden.
- 4.75 The intensity of on-rail competition is different in each country and depends on a number of variables defined by policymakers, such as the degree of liberalisation, the scope of public service obligations (PSOs), the manner in which PSOs are allocated (ie competitive tendering versus direct awards), the structure of the market (ie vertical integration or separation) and the presence of an independent economic regulator.
- 4.76 In summary, the level of open access on-rail competition is relatively low in Germany, but is higher in Italy, the Czech Republic, Austria and Sweden (although subject to different legal and market constraints).
- 4.77 Efficient open access entry, signalled by the sustainability of the OAO's business and its share of the relevant market segment, has had a positive impact on those markets in terms of price, quality of service, demand growth and, sometimes, efficiency. There have also been some pitfalls, (described further in Chapter 6) including uncertainty on security of supply, business unsustainability and impact on public funds.
- 4.78 Table 5 and Figure 7 show the OAOs active during 2015 and provide a direct comparison of the main policy factors affecting the rail market design in European countries with on-rail competition, including Italy, the Czech Republic, Austria, Sweden and Germany.

Table 5: OAOs active in Europe in 2015

Country	Main OAOs	Service	Entry date	Market share (%)	
				OAO in relevant segments/routes	Incumbent overall
Austria	Westbahn	LD	2011	[20–25]†	88
Czech Republic	RegioJet	LD	2011	[40–50]‡	95
	Leo Express	LD	2012		
Germany	HKX	LD	2012	[5–10]§	88
Great Britain	Grand Central	LD	2007	[0–5]¶	-
	First Hull Trains	LD	2002	[0–5]#	
Italy	NTV	HS	2012	[20–25]~	83
Sweden	Veolia/Skand-Jern/TAG	LD	2010-11-13	N/A	68
	MTR	LD	2015	-	

Source: Based on 2013 data (passenger miles) available in the Staff Working Document accompanying the European Commission's Fourth report on monitoring development of the rail market (SWD (2014) 186 final) and from interviews conducted with the competent national authorities in Austria, the Czech Republic, Germany, Italy and Sweden or with OAOs.

†Market share estimate relating to the Vienna–Salzburg route.

‡OAOs' cumulative market share estimate relating to the Prague–Ostrava route.

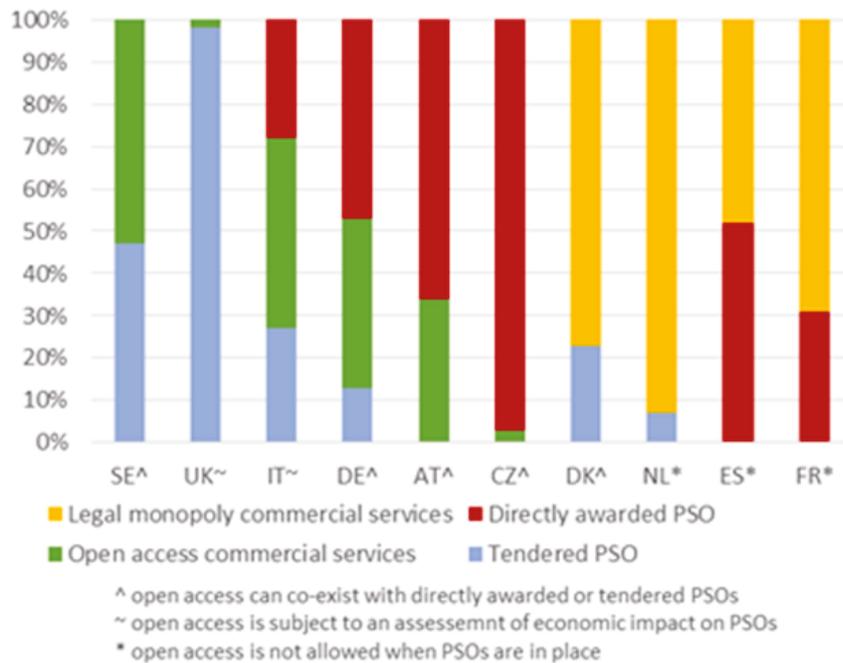
§Market share estimate relating to the Hamburg–Cologne route.

¶Market share estimate relating to long-distance services on the East Coast main line.

#Market share estimate relating to long-distance services on the East Coast main line.

~Market share estimate on the overall national high-speed services market.

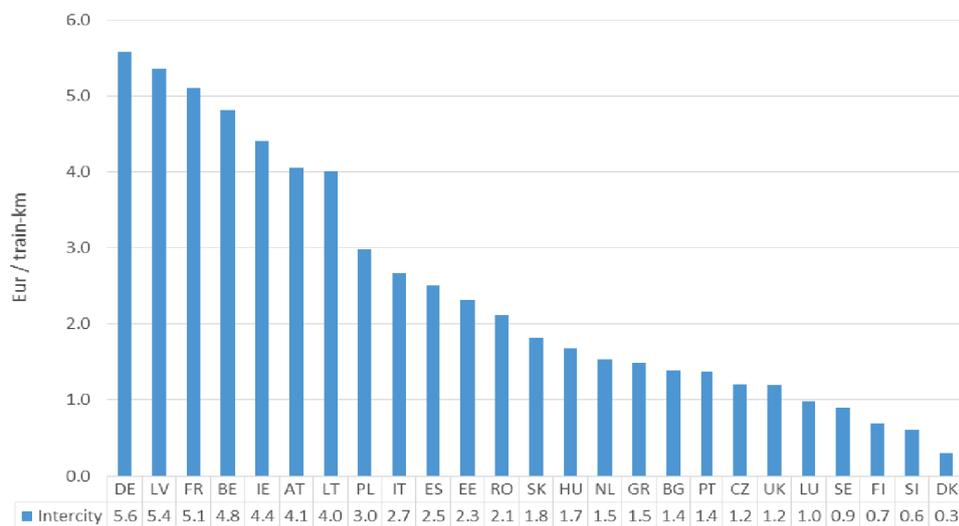
Figure 7: Rail market design in EU countries (2012)



Source: Elaboration on data from EU Commission RMMS questionnaires – Annex 15 of Staff Working Document SWD (2014) 186.

4.79 There is considerable variation in the track access charges paid by train operators across Europe. Figure 8 presents the track access charges for intercity/long-distance services.

Figure 8: Track access charges for intercity/long-distance services (2014)*



Source: EU Commission – SWD (2014) 186 final.
 *Track access charges in 2014 for a 500-tonne intercity train.

Overview of open access competition and market structure in each country

Italy

Overview

- 4.80 In Italy, the main OAO, NTV, entered the market in 2012 and its market share in 2013 was around 22% (in terms of passenger miles) of all national high-speed services.¹³³ The high-speed services are not covered by public service contracts (PSCs) and the OAO competes with all the high-speed commercial services provided by the downstream arm of the state-owned incumbent holding company, Trenitalia. In contrast, PSOs are clearly defined on regional/suburban services and long-distance traditional (non-high-speed) services: in 2012 PSO services represented 54% of overall passenger miles and 21% of long-distance passenger miles.
- 4.81 In Italy, PSCs are often directly awarded to the incumbent train operator. Open access is possible when PSOs are in place, but OAOs' entry is subject to an economic equilibrium assessment.¹³⁴ In 2013, the incumbent operator's share of the overall passenger transport services was more than 80%.¹³⁵

Structure of the market

- 4.82 In Italy, there is a vertically integrated holding company, Ferrovie dello Stato, which is subject to legal, functional and accounting separation obligations between the network operator (RFI) and the TOC (Trenitalia). In recent years, non-discriminatory access to commercial spaces in the stations, and to commercially more valuable train stations and depots has been a problem for the Italian OAO, NTV. However, a recent regulation from the newly established transport regulator¹³⁶ tackled this competitive distortion, imposing transparency and non-discrimination obligations.¹³⁷
- 4.83 In contrast, network capacity does not appear to be a competitive constraint in Italy as open access competition has exclusively developed on the high-speed line, which is completely separated from the traditional line and currently uncongested.¹³⁸ In Italy, track access charges are the same for all

¹³³ Mainly the Turin–Milan–Venice and the Milan–Rome–Naples high-speed routes.

¹³⁴ In particular, access is denied if the PSC operator's (incumbent) profits are reduced more than 50% in a specific PSC.

¹³⁵ The residual non-incumbent market share not accounted for by the high-speed OAO is held by rail companies operating some regional/suburban transport services under concessions.

¹³⁶ The Italian transport (multi-modal) regulator (ART) was established in 2013.

¹³⁷ ART Regulation 70/2014.

¹³⁸ There is some congestion at hub and station level but further network investments are expected.

operators and cover all operating costs plus financial costs.¹³⁹ For access charges on the high-speed services/lines, the Italian network operator has been allowed to fully recover all its network investments¹⁴⁰ over its concession length (25 years). In October 2014, the high-speed track access charge was reduced by the regulator in order to enhance competition. In Italy, the availability of rolling stock has been an important entry barrier for OAOs given that the incumbent owns almost all of the rolling stock in the country (ie no separation is in place between the provision of rolling stock and the incumbent TOC). NTV therefore had to undertake major investment to buy new rolling stock.¹⁴¹

Czech Republic

Overview

- 4.84 In the Czech Republic, there are two OAOs (Regiojet and Leo Express). They started their operations in 2011 and 2012, respectively, competing on the Prague–Ostrava route with the publicly owned incumbent TOC, Czech Rail.
- 4.85 Czech Rail currently has no PSOs on this route and the two entrants hold around 40 to 50% market share on the route. All other regional, suburban and long-distance services are covered by PSOs, which in principle cannot prevent or limit the entry from OAOs. However, PSCs have traditionally been directly awarded to the incumbent, which overall has almost the totality of the passenger transport service market share (around 95%).¹⁴² PSOs in the Czech Republic cover 98% of all passenger services overall and 21% of the long-distance services.

Structure of the market

- 4.86 In the Czech Republic, after a European Commission infringement procedure in 2011, infrastructure management has been clearly separated from train operations and is undertaken by a public body (SZDC).¹⁴³ Non-discriminatory third party access to the network is guaranteed, although some network functions (such as secondary track repairs) has been maintained by the

¹³⁹ Ordinary and extraordinary network maintenance costs are instead financed by the government.

¹⁴⁰ In the high-speed services, it is 15% of the new high-speed network deployment costs, while 85% has been paid by government.

¹⁴¹ The Everis 2010 report highlighted that the impact of open access would be much larger in Italy if a third of existing rolling stock were to be transferred to separate leasing companies.

¹⁴² Competitive tender procedures for PSOs have been planned by the government for some routes with operations starting from 2016.

¹⁴³ A legislative provision prescribing some level of vertical separation was in place since 2002.

incumbent train operator and transferred to the network operator only recently.¹⁴⁴ Track access charges are the same for all operators and are relatively low, as are retail prices of tickets. In the Czech Republic, the incumbent operator owns the rolling stock. However, availability of rolling stock does not appear to have been a major problem for OAOs, which either purchased new rolling stock (as Leo Express did) or leased second-hand stock from Austria and Italy (as in the case of Regiojet).

Austria

Overview

- 4.87 In Austria, an OAO (Westbahn) has been providing long-distance passenger services on the Vienna–Salzburg route since 2011, where it competes with the downstream arm of the publicly owned incumbent holding company, OBB. Westbahn currently has around a 20 to 25% market share on the route, which is essentially the only route in Austria not covered by PSOs. Overall, the incumbent has 87% of the passenger rail transport market in terms of passenger miles.
- 4.88 PSOs in Austria cover 66% of all services overall and 34.5% of the long-distance services. There are no competitive tenders for the PSCs, which are directly awarded to the incumbent. Open access entry is theoretically possible in the whole market, with no economic equilibrium assessment, but has only occurred where the routes are profitable and the incumbent's services are not subsidised (ie international routes and the Vienna–Salzburg route).

Structure of the market

- 4.89 In Austria, the vertically integrated holding company, OBB, is subject to obligations of legal, functional and accounting separation between its upstream and downstream activities. Path allocation has to be made in a neutral manner and prioritisation criteria are defined in a general and non-discriminatory way.¹⁴⁵ There is a non-discrimination obligation for track access charges, which are the same for all operators. The track access charges cover only variable costs and some mark-up on the more profitable lines, such as the Vienna–Salzburg route. There is no separation in place and all rolling stock has to be approved by the infrastructure manager. This caused some

¹⁴⁴ Steer Davies Gleave Research for European Commission, DG Move, 2012.

¹⁴⁵ That is to say international over long-distance over local routes, public services are prioritised only in peak-hours.

initial problems for OAO entry. Currently, Westbahn has its own dedicated double-decker rolling stock.

Sweden

Overview

- 4.90 In Sweden, there are currently a number of OAOs (Veolia, Skandinaviska Jernbanors, Tagkompaniet) competing in the three main long-distance routes within the Stockholm–Gothenburg–Malmö triangle. Those Swedish OAOs started providing daily services in 2010, 2011 and 2013, respectively, and are differentiated¹⁴⁶ from the services provided by the incumbent TOC, SJ. An additional OAO, MTR, launched services in spring 2015 on the Stockholm–Gothenburg line, operating in direct competition with that of the incumbent.¹⁴⁷
- 4.91 At present, 47% of all train passenger services in Sweden are covered by PSOs overall, but only 2% of long-distance services are covered by PSOs. In Sweden, PSCs have been procured via competitive tenders for almost 20 years, allowing new entrants to progressively increase their market shares. The market is completely open and commercial services may coexist with services operated under PSCs. However, in practice, OAOs tend not to compete with subsidised PSC operators (either incumbent or entrant). In addition to PSC services and commercial services, there is a hybrid form in which commercial service providers agree with the regional public authority to provide some PSOs. In 2013, SJ held a market share of around 90% of long-distance services (in the triangle routes) and 55% of regional services.

Structure of the market

- 4.92 In Sweden, infrastructure management has been separated from train operations since 1988¹⁴⁸ and is currently managed by a public body (Trafikverket). Such a long period of vertical separation has resulted in a clear-cut distinction between the activities of infrastructure manager and TOCs. However, the administrative procedure for capacity allocation has been subject to criticism, particularly regarding its transparency and efficiency, in part due to a lack of predefined prioritisation criteria.¹⁴⁹ For these reasons, the

¹⁴⁶ Notably low price/slower trains.

¹⁴⁷ MTR has been already active in the Swedish market since 2009 when it took over operation of the Stockholm metro network under an eight-year contract.

¹⁴⁸ Sweden was the first country in Europe to apply vertical separation in the market.

¹⁴⁹ At present, the process consists of an application before the transport administration (network operator) in April each year, which will try to accommodate all requests and include adjustments to the previous year's

capacity allocation procedure is currently under review,¹⁵⁰ especially in light of three operators competing on the Stockholm–Gothenburg line in 2015.

- 4.93 Track access charges are the same for public service operators and OAOs and are based on estimated ordinary usage depreciation per gross tonne kilometre and differentiated on the basis of congestion and traffic levels.¹⁵¹ There is a policy debate in Sweden about the level of the track access charge, which is considered by many to be significantly low.
- 4.94 There are a number of technical barriers to the development of competition in Sweden, due to capacity constraints and the small number of intercity routes (with low population density being a particular barrier).¹⁵² There is no horizontal separation of rolling stock and most rolling stock for long-distance services belongs to the incumbent. The leasing procedures have been described as problematic.¹⁵³ However, at regional level, the regional transport authorities have created a leasing joint-stock company (Transitio) which pools and leases trains to winners of regional bids. MTR purchased new trains from Swiss manufacturer Stadler Rail.

Germany

Overview

- 4.95 In Germany, there are no legal regulatory barriers to market entry. However, open access on-rail competition is quite limited. The downstream arm of the publicly owned incumbent holding company, Deutsche Bahn (DB), provides more than 99% of the long-distance services, operating exclusively on a commercial basis (without subsidies). On the Hamburg–Cologne route there is some degree of on-rail competition between DB and an OAO (HKX).¹⁵⁴ The latter entered the market in 2013, covering a low-price segment, and currently holds around a 5 to 10% market share on the route.
- 4.96 Regional/suburban services, which are operated under PSC and cover 59% of all services, are increasingly allocated via competitive tenders (currently

scheme. In case of conflicts, these are resolved via negotiations, both between operators and the transport administration and between operators themselves.

¹⁵⁰ There is actually an ongoing comprehensive review of the rail system being undertaken in Sweden by a government committee. The final report will be published at the end of 2015.

¹⁵¹ Additional minor charges are levied. Sweden has also implemented a performance regime.

¹⁵² For instance Stockholm is geographically located in a capacity bottleneck, although expansion of the network is ongoing (a tunnel accessing the Stockholm area is under construction).

¹⁵³ For example, a potential OAO, Sundsvallsflyg, a small airline flying between Stockholm and Sundsvall wanted to compete on the Stockholm–Sundsvall rail route. It applied for train paths but never started its business, because it could not find rolling stock.

¹⁵⁴ A small OAO, HEX, is active in the Harzt–Berlin route, and there was another OAO, Veolia, in the Rostock–Berlin–Leipzig route from 2011 to 2014 but Veolia has recently terminated those services.

around 60%) and the incumbent, DB, has 80% of the market. At the regional level there is therefore relatively strong competition for the market, but no open access on-rail competition.

Structure of the market

- 4.97 In Germany, the vertically integrated incumbent, DB, includes the incumbent TOCs (DB Regio, DB long-distance and DB freight) at downstream level and the infrastructure manager (DB Netz), the station manager (DB Station & Service) and the energy supplier (DB Energie) at upstream level. Functional and legal separation obligations are in place. However, the strong market position of the incumbent represents an entry barrier for long-distance OAOs. Moreover, severe infrastructure bottlenecks and capacity constraints also limit open access market entry.¹⁵⁵ In relation to capacity allocation, there is no formal prioritisation of the incumbent DB's services over other operators' services. However, there have been a number of complaints about a lack of transparency in the procedure.¹⁵⁶
- 4.98 The track access charge is based on full cost recovery and is among the highest in the EU. The track access charge includes a base charge (differentiated by track categories and track usage) plus a product charge, depending on several service parameters (eg prioritisation in timetabling, the number of special trains, etc).¹⁵⁷ Finally, as in most European countries, there is no separation between the incumbent train operator and rolling stock provider and their scarce availability is an additional market entry barrier for long-distance OAOs.

Benefits of on-rail competition in Europe

Fares

- 4.99 The European case studies show that open access competition yields passenger benefits in terms of lower fares. This is evident in Austria, where

¹⁵⁵ Like Italy, Germany has a backbone rail axis connecting many large cities, including Munich–Frankfurt–Cologne–Hannover–Hamburg. However, unlike Italy, in Germany high-speed services do not have a dedicated line and mostly run over the traditional line.

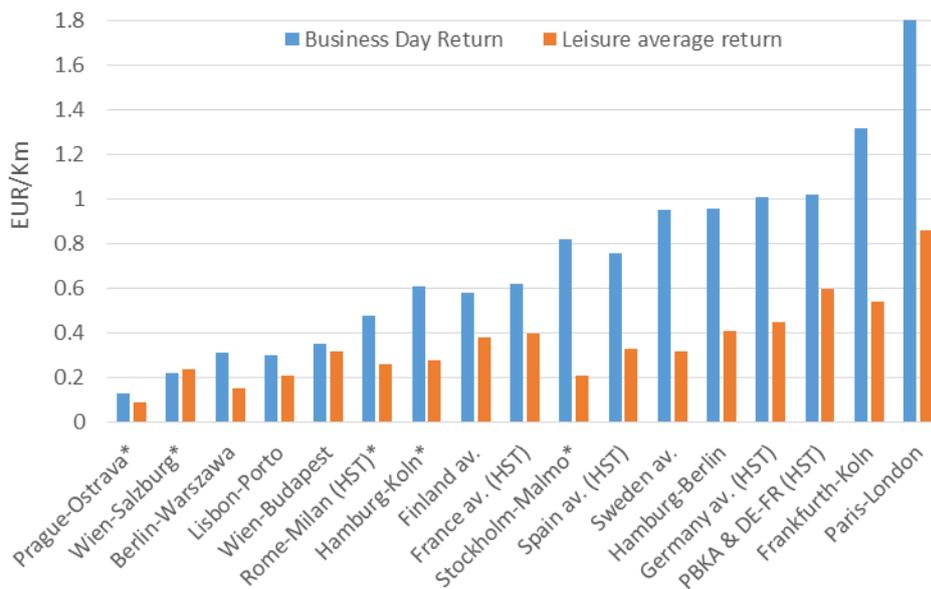
¹⁵⁶ Steer Davies Gleave Research for European Commission – DG Move, 2012; Monopolkommission (2011) Sondergutachten 60 – Bahn 2011: Wettbewerbspolitik unter Zugzwang. Moreover, the capacity allocation rationale is that longer routes paying overall higher charges to DB Netz are given priority over shorter routes and the incumbent often runs services over longer routes; the incumbent often receives *de facto* priority over potential entrants.

¹⁵⁷ In Germany, a performance regime is in place, under which either TOCs or the network operator have to pay for delays.

the OAO's entry generated intense price competition with the incumbent,¹⁵⁸ in the Czech Republic where the three operators have engaged in intense price competition¹⁵⁹ and in Italy, where there has been price competition, particularly through frequent discounts applied by the incumbent operator in reaction to the OAO's offers, exerting downward pressure on fares for high-speed services, which are now similar to fares for those non-high-speed long-distance services that are operated on a commercial basis but which are not subject to competitive pressure.¹⁶⁰ In Sweden, the expected entry of the new OAO has already generated an extensive discounted tickets campaign from the incumbent on the Stockholm–Gothenburg route (previous OAOs (eg Veolia) often occupied a low price segment of the market).

4.100 Figure 9 presents the estimated average return fares (in terms of €/km) on the main long-distance European commercial routes. Fares on routes with on-rail competition (eg Prague–Ostrava) are some of the lowest in Europe, and often lower than other routes in the same country.

Figure 9: Estimated average return fare (€/km) in the main EU commercial routes (2013)



* Open access competition in the route

Source: Elaboration on data from European Commission – SWD (2014) 186 final.

Notes:

1. Data, as of February 2013, refers to (a) simple average day return business class fare (purchased eight days in advance) and (b) simple average leisure return (weekend trip with advance purchase and weekend trip with immediate departure).
2. PBKA = Paris–Brussels–Cologne–Amsterdam. HST = high-speed trains.

¹⁵⁸ The Austrian OAO undercut the incumbent's fare by offering discounted fares for regular travellers and the incumbent reacted by introducing special offers.

¹⁵⁹ For example when RegioJet entered the market in September 2011, it offered a price which was, on average, 25% lower than the incumbent Pendolino's price for a service that is slightly slower (87 mph versus 99.4mph). After a month, the incumbent reacted by lowering its price by 30% as well as waiving reservation fees and offering special discounts.

¹⁶⁰ The data compares price/km on the incumbent Trenitalia high-speed services ('Frecciarossa'), eg the Florence–Rome route with that on the incumbent non-high-speed long-distance services ('Frecciabianca'), eg on the Adriatic route from Pescara to Bologna.

Service quality and innovation

- 4.101 As these European case studies show, price competition does not appear to have resulted in a reduction in customer satisfaction and has had a positive effect on service quality, innovation and service frequency.
- 4.102 In Austria, for example, the OAO introduced free wi-fi services and the incumbent followed this innovative offer. Moreover, the Austrian OAO introduced ticketing innovations such as online retailing, on-board ticketing services offered by stewards¹⁶¹ and the sale of discounted tickets at tobacco kiosks. The OAO's five-stop service also achieves the same journey time as the incumbent three-stop service due to its more technologically advanced rolling stock.
- 4.103 In the Czech Republic, service quality improvements have also been generated. For example, the OAOs introduced higher quality standards in their services than that of the incumbent (such as wi-fi and lower-floor trains to facilitate access) and also offered complimentary parking and taxi services upon departure and arrival.
- 4.104 In Italy, the OAO explicitly started competing with the incumbent on service quality and innovation, including by introducing new rolling stock which offers more comfortable seating, a greater range of dining options and a cinema car. The incumbent reacted with a service differentiation strategy and increased frequency (especially in the off-peak hours).
- 4.105 In Sweden, the OAO introduced sophisticated restaurant services and the new OAO, MTR, has announced that it will compete with the incumbent on the Stockholm–Gothenburg route in terms of price and quality of service in order to win passengers from both rail, car and air.

Passenger usage

- 4.106 Open access competition generated market growth on almost all the routes involved. The new services often served previously unmet demand and also resulted in the transfer of passengers from other modes of transport, particularly from road and, in some cases, from air.
- 4.107 In the Czech Republic, we were told that the customers of the new entrants (which currently have a combined market share of 40 to 50%) were largely new to the rail market and, therefore, demand was not significantly abstracted from the incumbent. In Italy, when the OAO commenced its high-speed

¹⁶¹ In peak-time hours, there is one steward per coach.

operations, rail demand grew by 10 to 15%, mainly due to the transfer of passengers from air transport services on the Milan–Rome route. In Austria, the overall demand on the Vienna–Salzburg route grew, attracting passengers from road transport and resulting in only a small initial reduction in the incumbent’s share of rail passengers of about 1.5%.¹⁶² In Sweden, the aim of the new OAO, MTR, is to target competing modes of transport rather than the incumbent rail operator.¹⁶³

Efficiencies

4.108 There is limited information available on the costs of OAOs in other European countries and it is therefore difficult to assess the extent to which OAOs are able to achieve lower costs than incumbents.

4.109 We were told by the Austrian regulator that the OAO in Austria is understood to have lower overheads and lower staff costs than the incumbent, which allows it to compete effectively despite it having lower economies of scale and density. Moreover, the new Swedish OAO, MTR, announced that it was able to keep costs down by exploiting synergies with MTR Stockholm (the Stockholm metro network operations, which MTR took over in 2009). We were also told that a number of the OAO entrants in other European countries have sophisticated yield management systems which allow them to generate additional revenue.¹⁶⁴

Differences between open access competition in Great Britain and other European countries

4.110 There are a number of differences between open access competition in Great Britain and other European countries. A major difference between most European systems and Great Britain is the level of integration of the market, both at the vertical and horizontal level. In Austria, Italy, Germany and the Czech Republic, the OAOs compete against a vertically integrated incumbent operator which can act as an entry barrier. In particular, there have been concerns in some other countries in Europe as to the absence of a level playing field and the risk of incumbents raising competitors’ operating costs through price and non-price discrimination. In contrast, the system in Great Britain is not vertically integrated.

¹⁶² Steer Davies Gleave Consultancy, Research for European Commission, DG Move, 2012.

¹⁶³ ‘MTR Swedish open-access venture targets air and road’, *International Railway Journal* (7 April 2015).

¹⁶⁴ HKX in Germany, NTV in Italy and, potentially, MTR in Sweden.

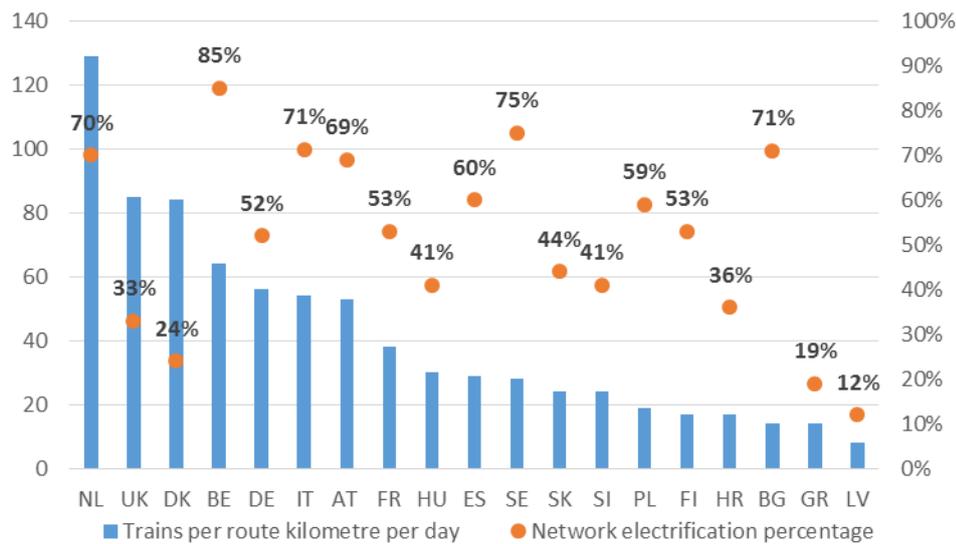
- 4.111 The problem of vertical integration and the lack of a level playing field arose in Italy prior to the establishment of the independent regulator in 2013. Issues arising included margin squeeze and non-price discrimination.¹⁶⁵ In Germany, there have been problems in terms of access to ticket distribution, stations and the DB Energie electricity network. Action was taken by the sector regulator.¹⁶⁶ Complaints by the OAO in Austria have concerned both discriminatory path allocations and the exclusion of the OAOs' train services from the timetable published by the incumbent.¹⁶⁷
- 4.112 The European Commission also referred procedures in Germany (in 2010) and the Czech Republic (in 2009) to the EU Court of Justice for infringement proceedings due to insufficient separation between the infrastructure manager and the incumbent and the consequent failure to guarantee full independence of decision-making on capacity allocation. The European Commission also referred Italy to the EU Court of Justice (in 2011) because of concerns regarding a lack of independence of the regulatory body (previously a Ministerial department) from the government, which has shareholder interests in the incumbent railway undertaking. In Sweden, long-term vertical separation is considered to have allowed a more level playing field. All European countries considered differ from Great Britain given the integration of the rolling stock leasing activity into the activities of the incumbent (with the partial exception of Sweden at the regional level).
- 4.113 On the other hand, capacity constraints in other European countries are often less severe than in Great Britain. Figure 10 illustrates the intensity of the use of network in various European countries.

¹⁶⁵ ART Regulation 70/2014 imposing transparency and non-discrimination obligations (eg obligations concerning access to commercial space in the stations and train depots); AGCM (competition authority decision) Decision A443 (19 February 2014) accepting the incumbent's commitments on alleged abuse of dominance infringements (namely margin squeeze, access only to secondary stations, and allocation of paths forcing empty runs to depots).

¹⁶⁶ In 2009, the regulator BNetzA rejected clauses in DB Netz AG network statement and the Federal Administrative Court upheld BnetzA's decision finding that most of these were discriminatory. In October 2010, BNetzA asked DB Energie to open its energy network to third parties, against which DB Energie brought a complaint. The Higher Regional Court of Düsseldorf agreed with the opinion of the regulator and the energy network will need to be opened to other energy suppliers from 2012; this has now occurred. In February 2012, BNetzA required that DB Energie reduce the fee by 23% compared with their proposed amount. Complaints regarding ticket selling were made to the Swedish competition authority signalling that the main selling platform is the incumbent's website which sets price and access conditions. However, the Swedish competition authority stated that the ticket platform was not an essential facility and thus refusal to supply access did not represent abusive conduct.

¹⁶⁷ Complaints from the OAO about discriminatory treatment by the incumbent were addressed by the sector regulator, Schienen-control, either by facilitating a negotiated agreement between the parties or via a formal decision. Some complaints were also brought before the Austrian Competition Court.

Figure 10: Network usage intensity and electrification percentage (2013)*



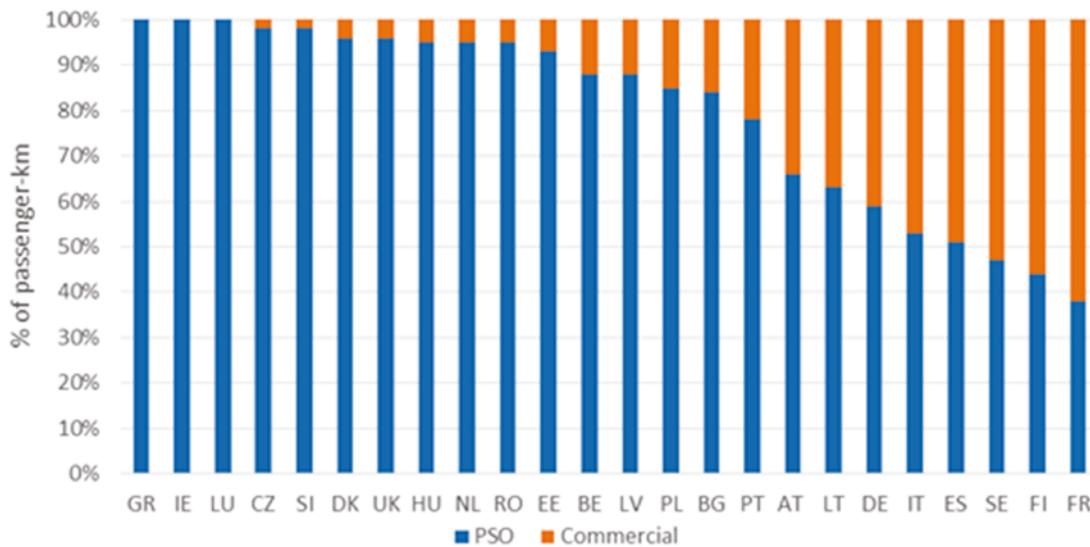
Source: Elaboration on data from IRG-Rail Annual Market Monitoring Report 2015 and Eurostat 2014.

*This intensity measure is calculated by dividing the total train kilometres by the route length and number of days to give the average number of trains per route kilometre per day.

4.114 In a number of the case studies considered, competition takes place on dedicated high-speed networks. In contrast, open access competition in Great Britain is on conventional (albeit intercity) lines.

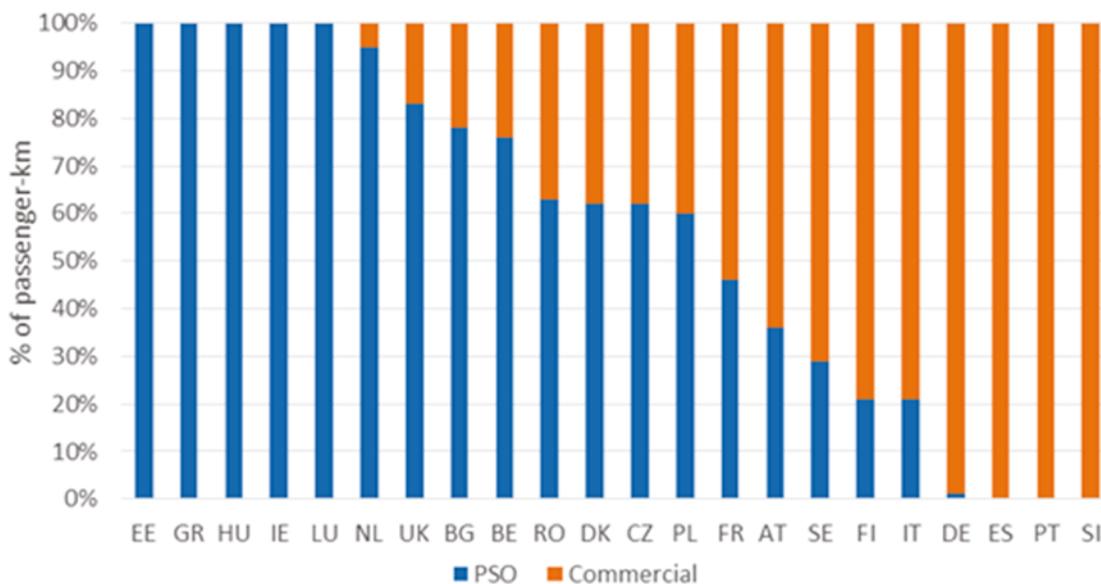
4.115 The ratio between PSO services and commercial services also differs between Great Britain and the other European countries examined, especially for high-speed and long-distance services, although for the regional/suburban services it is more similar (see Figures 11 and 12 below). Moreover, in most of the European countries where open access competition has developed, there is a clear definition of PSO services and a clear separation between PSO and commercial services.

Figure 11: PSO vs commercial services in 2012 (% passenger-km)



Source: EU Commission RMMS questionnaires – Annex 15 of SWD (2014) 186.

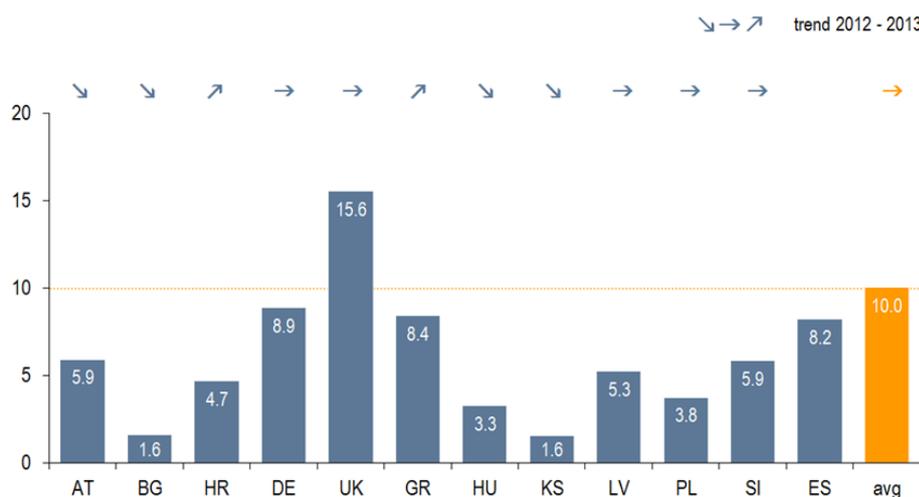
Figure 12: High-speed and long-distance PSO vs high-speed and long-distance commercial services in 2012 (% passenger-km)



Source: Elaboration on data from EU Commission RMMS questionnaires – Annex 15 of SWD (2014) 186.

4.116 There are also different approaches to financing the network in Great Britain than in other European countries. In Great Britain, PSOs and profitable services are bundled together in franchises, with profitable services, in effect, cross-subsidising unprofitable services. In other European countries, the non-PSO routes are often separately defined. In addition, in Great Britain, a greater proportion of revenue is derived from passengers than from general taxation, as illustrated by the average passenger fares in Figure 13.

Figure 13: Average passenger fare (euro cents per passenger km) on all routes (2013)



Source: IRG-Rail Annual Market Monitoring Report 2015.

4.117 The system in Great Britain also differs from that in many other European countries (with the exception of Sweden) as PSO services are generally awarded by way of a competitive bidding process rather than direct awards. In Austria and the Czech Republic, the percentage of tendered PSOs is almost zero.¹⁶⁸ The proportion is slowly increasing in Italy¹⁶⁹ and is increasing to a greater degree in Germany (currently standing at 60%).¹⁷⁰

On-rail competition from 'no frills' services

4.118 The introduction of a 'no frills' service is a potential entry strategy for an OAO. As set out above (see paragraph 4.95), HKX competes with the incumbent, DB, in Germany on the route between Cologne, Düsseldorf and Hamburg. HKX focused on offering low fares with the aim of attracting custom from lower income groups, including students and the retired. In contrast to its routes with no competition, DB responded by freezing its fares on this route and by introducing refurbished rolling stock.

4.119 There are also two examples, set out below, of incumbent rail operators segmenting the market through the use of a different brand in order to serve the most price-sensitive customers.

¹⁶⁸ The Czech Republic has planned a number of PSO tenders to commence from late 2015.

¹⁶⁹ In Italy, long-distance PSO services are allocated to the publicly owned incumbent by direct award, while at regional level, according to Law 1370/2007, it is possible but not compulsory to tender out regional PSO services. A number of legislative amendments and judicial decisions in the last few years created a high level of uncertainty in this regard.

¹⁷⁰ In Germany, PSOs are defined only on regional/suburban services, while long-distance services are operated on a purely commercial basis.

Ouigo

- 4.120 In February 2013, SNCF (the French state-owned railway company) announced the establishment of Ouigo, a dedicated business unit operating a low-cost high-speed rail service in France. Ouigo runs from Marne-la-Vallée Chessy (16 miles from central Paris) and from Lyon Saint-Exupery (9 miles from Lyon) to Marseille and Montpellier.¹⁷¹ Fares range from €10 to a maximum of €85 and children accompanied under the age of 12 are charged a flat fee of €5.
- 4.121 As services do not start or terminate at Paris's central station, Ouigo pays lower infrastructure charges than traditional high-speed services and does not face capacity and operational constraints at central stations in Paris and Lyon. Ouigo achieves economies of density by using double-decker and double-length rolling stock and has increased the density of seats by, for example, removing first class coaches and luggage racks. Ouigo has increased its ancillary revenues through measures such as charging passengers for additional pieces of luggage and use of electrical sockets.
- 4.122 Although ticket prices are higher on peak days, they remain significantly lower than those paid by passengers using traditional high-speed services or travelling by air. Ouigo announced that, during its first year of operation, the service carried over 2.5 million passengers, with 50% of those passengers coming from traditional high-speed services.

Megatrain

- 4.123 Megatrain.com, a business unit of Stagecoach Group plc, offers 'budget rail services' on East Midlands, South West and Virgin West Coast trains. These are all franchised routes on which Stagecoach Group is either the operator or joint venture partner (see Table 1 in Chapter 2). Megatrain has adopted a yield management model offering the lowest fares to passengers who either book early or travel at less attractive times. Fares start from as low as £1 (with an additional 50p reservation fee).

¹⁷¹ In March 2015, SNCF announced its plans to extend Ouigo to Nantes in September 2016, then Bordeaux and Rennes in 2017. See article in [La Tribune](#) (12 March 2015).

5. Evidence of efficiency gains from greater on-rail competition

Efficiencies in train operations

Introduction

- 5.1 The consideration of efficiencies is central to the assessment of the benefits of on-rail competition. In general terms, effective on-rail competition would provide a stimulus to improve service quality, reduce cost and increase innovation, in ways that benefit rail passengers. However, as set out in Chapter 2, the level of premium paid by franchisees to the government (or the level of subsidy required) depends on the revenue from, and the cost of, operating a franchise, taking into account both the level of competitive risk involved and the number of bidders. In this funding framework, greater competition has the potential to reduce fares for passengers and increase quality and innovation, but could result in additional funding being required from the taxpayer if corresponding revenues fall. The balance depends both on the extent to which competition from new entrants can help generate increased passenger numbers and revenues overall, and also the extent to which efficiencies generated by competition are able to offset the impact on revenue from lower fares.
- 5.2 As set out in the assessment of the potential passenger benefits from greater on-rail competition in Chapter 4, competition has the potential to generate productive, allocative and dynamic efficiencies. If firms are competing to attract customers (passengers) by offering lower fares and higher service standards, a key means of doing so is by increasing efficiency. Firms that face greater competition therefore have greater incentives to adapt their operations in order to minimise their costs, use resources where they are valued most and to innovate to find better ways of delivering services.
- 5.3 In addition, there are specific features of OAOs in Great Britain that make them better able than franchisees to operate efficiently:
- OAOs operating in Great Britain are free from franchise specification and have the flexibility to change their price and service offering as part of their strategy, whereas franchisees are unable to control many of their costs as a result of their franchise agreements.
 - OAOs can make their own staffing and procurement decisions.

- Franchisees may not have the incentive to challenge certain costs (particularly staff costs) given the cost of potential disruption through industrial disputes, etc as compared with the benefit that would be accrued over the limited term of their franchise, and the effect that such disruption could have on a bid to renew the franchise.
- Franchise agreements that include revenue-sharing features such as cap and collar mechanisms (described in Chapter 2) or franchise operations that are run on the basis of management agreements result in even lower incentives to achieve efficiencies once the franchise is under way.

5.4 In addition to efficiency savings at the train operating level, train operators paying significant access charges that they are not indemnified for are more likely to take a strong interest in Network Rail's efficiency and to drive demands for:

- more efficient use of network capacity to accommodate new paths; and
- more efficient spending on the network.

Estimating efficiency

5.5 Efficiency is conventionally measured as units of input per unit of output, or through costs per unit of output. For example, a train company providing outputs measured in terms of passenger miles, or train miles, could be assessed in terms of efficiency by how much it costs it on average to provide a passenger mile, or how many staff and how much rolling stock it requires to do so. Efficiency may also be measured in terms of train-hours (ie the hourly cost of operating services) to reflect time-driven costs such as staff costs and rolling stock leasing costs.

5.6 There is some evidence to suggest that the passenger rail sector in Great Britain is not currently fully efficient, as mentioned in Chapter 2 (see paragraph 2.38). The McNulty Report commissioned by the DfT and ORR found an efficiency gap when comparing the system in Great Britain with four European comparator railways.¹⁷² It concluded that Great Britain's passenger rail sector should aim to achieve a 30% reduction from the 2008–2009 level of industry costs by 2018–2019. Other studies, such as Smith, Nash and Wheat

¹⁷² ORR, [Rail Value for Money study](#).

(2009)¹⁷³ and Smith and Wheat (2011)¹⁷⁴ find that, respectively, franchisee costs were the same in 2006 as in 1997, or had actually increased.¹⁷⁵

- 5.7 In determining whether on-rail competition has the potential to lower costs, one approach would be to analyse the unit costs or productivity of sections of the rail sector where there is on-rail competition. In theory, this could be undertaken to compare the situation with areas of the network where there is no competition. As passenger railway operations involve multiple outputs and multiple inputs, it would be best for these outputs and inputs to be assessed together, and there are a number of sophisticated means to do this.¹⁷⁶ However, such methodologies require a large amount of data, including comprehensive data on franchisee and OAO outputs, inputs and costs at a greater degree of granularity than is currently available.
- 5.8 As an alternative to the above, it is possible to examine the costs of OAOs, which face on-rail competition for the majority of their flows, relative to franchisees, which face more limited on-rail competition (and which are able to adjust much of their competitive offering due to franchise specification).
- 5.9 A second approach would be to draw comparisons between passenger rail services and other sectors in Great Britain that have similar characteristics and do have in-market competition. A third approach is to compare results between time periods within which other markets experienced changes in the degree of competition they faced. In respect of these latter two approaches, we focus on the rail freight and the airport sectors, which are discussed in Chapter 4 above.

Efficiency of open access operators

- 5.10 OAOs, which currently compete on the East Coast main line, face strong competition from franchisees on the routes on which they operate. Previous work has found that these companies achieve significant efficiencies. In its

¹⁷³ Smith, A, Nash, C and Wheat, P (2009), 'Passenger rail franchising in Britain: has it been a success?', *International Journal of Transport Economics* 36(1), pp33–62.

¹⁷⁴ Smith, ASJ and Wheat, PE (February 2011), 'Evaluating Alternative Policy Responses to Franchise Failure: Evidence From the Passenger Rail Sector in Britain,' *Journal of Transport Economics and Policy*, published online (Fast Track Articles).

¹⁷⁵ DfT (May 2011), *Realising the Potential of GB Rail Report of the Rail Value for Money Study*, p20.

¹⁷⁶ A summary of the issues associated with assessing efficiency in the rail sector is presented in Nash, C and Smith, SJ (2014), [Rail Efficiency: Cost Research and Its Implications for Policy, Paper for the International Energy Agency roundtable: Efficiency in Railway Operations and Infrastructure Management](#).

2011 consultation, ORR found that OAOs have costs which are 10 to 30% lower than franchisees' costs for a given density of operation.¹⁷⁷

- 5.11 This finding was based on a study prepared by Leeds University's Institute of Transport Studies and included in work conducted by the MVA consultancy for the 2011 ORR consultation. Leeds University's Institute of Transport Studies generated its estimate based on a number of approaches including: econometric papers by Smith, Nash and Wheat (2009)¹⁷⁸ and Smith and Wheat (2011);¹⁷⁹ estimates of the efficiency gains experienced in Sweden and Germany since privatisation through successful competition for the market; and sense-checking against the savings achieved through bus and airline deregulation in the UK (which were considerably higher at 40 to 50%).
- 5.12 We were informed by a transport company which operates both franchised and open access services that its unit costs in 2014 (per vehicle mile) were 10% lower for its open access operations than for its franchised operation with similar characteristics.
- 5.13 In assessing the efficiencies achieved by OAOs, it is important to note that the evidence relates only to the efficiencies delivered by OAOs in the current model of marginal open access operations. A significantly expanded role for open access, as considered in some of the proposed options for reform set out in Chapter 7, in which OAOs would compete head-to-head on key commercial routes (closer to the model adopted in other European countries with on-rail competition) may generate much larger efficiencies as OAOs benefit from economies of scale and density and as greater dynamic competition between operators increases incentives on all operators to achieve efficiencies.

Econometric analysis by Rasmussen, Wheat and Smith

- 5.14 The CMA commissioned Wheat and Smith (with Rasmussen) from Leeds University's Institute of Transport Studies to undertake research comparing the costs of OAOs with franchised TOCs after controlling for a number of factors. The analysis is based on the model of Wheat and Smith (2015)¹⁸⁰

¹⁷⁷ See ORR (October 2011), *The potential for increased on-rail competition – a consultation document*.

Economies of density are defined as the response of cost per train mile to an increase in train miles over track miles, ie how the cost of running additional services over an area of network where an operator already runs services changes. In the MVA report, Leeds University's ITS consider this elasticity of density to be around 0.8.

¹⁷⁸ Smith, A, Nash, CA and Wheat, P, 'Passenger rail franchising in Britain: has it been a success?', *International Journal of Transport Economics*, Volume 36(1), 2009, pp33–62.

¹⁷⁹ Smith, ASJ and Wheat, PE (2011), 'Evaluating Alternative Policy Responses to Franchise Failure: Evidence From the Passenger Rail Sector in Britain,' *Journal of Transport Economics and Policy*, published online (Fast Track Articles).

¹⁸⁰ Wheat, P and Smith, A (2015), 'Do the Usual Results of Railway Returns to Scale and Density Hold in the Case of Heterogeneity in Outputs?', *Journal of Transport Economics and Policy*, Volume 49(1).

which is currently thought to be the most sophisticated modelling of the cost structure of train operators in Great Britain.

- 5.15 The study found that OAOs' input prices are 29% lower than those of franchisees operating intercity routes. In the next step, the study utilised an econometric model that makes allowances for differences between OAOs and franchisees (including differential access charges, density, scale, heterogeneity and input prices). This analysis suggests that efficiency advantages offered by OAOs, which are able to adopt a more efficient business model than franchisees, more than offset any cost disadvantages from the limited scale and density of their current operations – although, as the study notes, there is a degree of uncertainty regarding the precise magnitude of the efficiencies.
- 5.16 The analysis in the paper also suggests that expanding the role of OAOs has the potential to deliver greater efficiencies as operators would benefit from greater economies of scale and density, although the overall cost impact depends on the extent to which the incumbent loses economies of scale and density as OAOs gain market share, and is route-specific. The paper also acknowledges that the incentives that dynamic competition would create for operators to reduce costs may be expected to generate further efficiencies over and above those reflected in the model.

Sources of efficiency at open access operators

- 5.17 We have further explored, through industry engagement and round tables, the efficiencies that OAOs have been able to achieve and how these have been attained.

Staff costs

- 5.18 Staff costs represent one of the industry's most significant costs, accounting for 29% of TOC costs in 2013/14.¹⁸¹ The franchising system appears to have had limited success in controlling staff costs as is noted, for example, in the McNulty Report.¹⁸² In the same publication, Leeds University's Institute of Transport Studies is reported as having found that historical OAO staff costs were 6 to 18% lower than franchisee staff costs, while there is evidence that staff satisfaction levels may be higher in OAOs than in franchised operators.
- 5.19 This is widely considered to be because OAOs recruit their own staff upon entry to the market. By contrast, franchisees inherit staff from their

¹⁸¹ ORR (February 2015), *GB rail industry financial information 2013-14*.

¹⁸² DfT (May 2011), *Realising the Potential of GB Rail Report of the Rail Value for Money Study*.

predecessor under TUPE arrangements on the same terms and conditions: the duration of the new franchise is then typically insufficient to risk harming industrial relations through introducing changes to pay and conditions.

- 5.20 We were told that it is possible for OAOs to achieve cost savings by increasing the efficiency of staff allocation, for example through flexible and efficient rostering of staff. A number of employees at OAOs also undertake multiple roles. For example, OAOs use on-board staff to despatch trains rather than paying station staff to undertake the task. We were also told that working practices at OAOs were more flexible than those under many historical agreements in the rail industry.
- 5.21 We have also seen evidence that the different terms and conditions under which staff at OAOs are employed has not led to lower staff satisfaction. On the contrary, we were told that staff at OAOs are often more positively engaged with their employer than staff at franchisees; a company operating both franchised and OAO services presented evidence that the staff on its open access services had the highest employee engagement and staff satisfaction within its operating group. The reasons for this were cited as greater staff involvement in decision-making and strategy and a stronger relationship between the performance of the company and staff remuneration.

Other sources of train operator efficiencies

- 5.22 OAOs told us that they are able to achieve efficiencies over franchised TOCs from a number of additional sources:
- **Outsourcing** – one operator told us it had achieved efficiencies by outsourcing maintenance, retail and cleaning activities. Local procurement was identified as a source of cost savings in certain areas. OAOs told us that they benefited from sharing some of the services of larger owning groups, for example in terms of legal, property and safety advice.
 - **In-house provision** – vertical separation in the rail industry in Great Britain means that OAOs do not find it difficult to access the upstream services they need in terms of access to stations and train depots on an equal basis with larger franchised TOCs. This is not to say OAOs are wholly reliant on buying in upstream services; they have told us they are free to undertake services themselves when they see inefficiencies, for example one operator told us that it prefers to uncouple and despatch its own trains at stations as it can do it faster than if it uses the services provided by the franchisee at the station. We have also been told that they have achieved efficiencies in terms of faster passenger embarkation and disembarkation at stations.

- **Freedom from specification** – we were told by OAOs that they have achieved a number of operational efficiencies. These include faster turnarounds of train units at stations, running services that are more closely tailored to demand and adjusting the rolling stock formation accordingly. OAOs are also free to adjust services to changing demand.
- **The franchise process** – OAOs avoid the cost of the franchise bidding process and the ongoing costs of running franchises such as contract management services required to demonstrate that franchisees are appropriately fulfilling their franchise duties. This point is also made in the 2011 ORR consultation and associated MVA report.¹⁸³
- **Ticket retailing** – OAOs have a greater incentive to chase every pound of revenue compared with most franchisees (as no risk-sharing mechanism applies in the case of OAOs). This has led to efficiencies in terms of ticketing and pricing innovations. Key factors include early introduction of yield management systems (where advance ticket prices change over time towards the point of departure, maximising revenue for the operator). We were told that one OAO implemented this system well before its franchised rival, which followed suit with some delay. We have also been told that OAOs more frequently sell tickets on board trains and have a greater incentive to prevent revenue leakage (eg through fare evasion). These customer-facing innovations are aimed at attracting the maximum number of passengers to the services that OAOs operate. Other pricing innovations have included loyalty schemes and carnet tickets, where passengers can buy journeys in bulk ‘books’, for example of 20 tickets, at a discounted price.

5.23 Moreover – and crucially – OAOs may suffer from being small-scale and would be more efficient if they were permitted to expand their service offering – eg along the lines of some of the options considered in Chapter 7. The current OAOs may also be below an optimal scale and density due to the constraints that they must only operate at the margins of the current franchises, as dictated by the NPA test, described above in Chapter 2.

Upstream efficiencies

5.24 The network is currently owned, operated and managed by Network Rail. The operation of the network, which comprises the upstream level of the rail

¹⁸³ See ORR (October 2011), *The potential for increased on-rail competition – a consultation document*. Also, MVA Consultancy (in association with Leeds University’s ITS), Report for ORR (22 July 2011), *Assisting Decisions: Modelling the Impacts of Increased On-rail Competition through Open Access Operation*.

industry value chain, makes up 52% of total industry expenditure.¹⁸⁴ Efficiency gains at this upstream level therefore have significant potential to reduce the cost of the network to both passengers and taxpayers.

- 5.25 This discussion document has already examined the track record of OAOs in applying pressure on Network Rail as the system operator to discover additional capacity in the form of train paths (see Chapter 4). We consider that on-rail competition has significant potential to enhance capacity allocation in the future and to reduce upstream costs. First, there is potential for greater on-rail competition to increase the incentives for train operators to put pressure on Network Rail to use capacity more efficiently. Second, greater on-rail competition may incentivise TOCs to encourage Network Rail to reduce costs where possible (in discussions we have had in the course of preparing this document, network costs were often cited as a major source of inefficiency within the current system).
- 5.26 The potential for greater on-rail competition to generate upstream efficiencies would be strengthened if the structure of charges within the industry are reformed so that access charges paid by TOCs are truly cost-reflective, rather than covered partly through the current mixture of infrastructure funding (ie FTAC, variable charges and the network grant). The current structure does not place incentives on franchisees to encourage efficiency from Network Rail as they factor in the cost of access charges to their franchise premiums or subsidy requirements, and are indemnified in their franchise agreements from increases in access charges at ORR periodic reviews. Similarly, while OAOs are fully exposed to variable charges (that reflect their direct impact on the network), they do not face any fixed access charges and, therefore, are not exposed to charges relating to the cost of providing and expanding the network.

Evidence from open access operators and competing franchisees

- 5.27 There is evidence to suggest that new entrants and competing franchisees have incentives to put pressure on Network Rail to use capacity more efficiently (ie to accommodate new entry and to control costs).
- 5.28 For example, in response to competition from Virgin Trains on the West Coast main line and from the parallel Chiltern Railways franchise, London Midland made modifications to its rolling stock in order to achieve higher line speeds. As discussed in paragraph 6.36, London Midland's project team found that with this approach it was possible to operate two services in a single train

¹⁸⁴ ORR (2012), *Costs and Revenues of UK Passenger Train Operators*.

path. This allowed an additional service to be added into each off-peak hour in 2012 and two additional morning peak services and five evening peak services to be added in December 2014. This produced around 4,000 extra seats in the morning peak and around 8,000 in the evening peak.

5.29 In addition, we were told that when Grand Central launched its services from London to York, the additional capacity required by the incumbent franchisee to run services from London to York was identified by Network Rail partly as a result of the capacity questions initially raised by Grand Central.

5.30 There are also examples of OAOs encouraging Network Rail to undertake projects to increase network capacity. First Hull Trains was able to persuade the DfT to back its plans to electrify the line between Selby and Hull, securing £3.3 million in public funds to support the scheme which is predominantly privately financed.¹⁸⁵ In a report published in March 2015, the Electrification Task Force, which was established by the Secretary of State for Transport to advise him on the next steps for electrification in the North of England, the project to electrify the line between Selby and Hull was identified as one of the government's priorities, which would lead to the provision of faster rail services, while also alleviating problems of overcrowding on routes. The Secretary of State for Transport has indicated that 'Network Rail will take the task force's findings into account as it develops its nationwide plan to improve the nation's railways'.¹⁸⁶

Evidence from the rail freight sector

5.31 As noted by the DfT in its 2012 report entitled *Reforming our Railways: Putting the Customer First*, the competitive environment has also generated significant efficiencies in the rail freight sector over recent years, and this has encouraged Network Rail to achieve efficiencies.¹⁸⁷ Specifically, freight operators which, unlike franchisees, are subject to access charge variations and regulatory reviews, have engaged extensively with ORR and Network Rail during periodic reviews in 2003 and 2008 (and to a greater degree than franchisees), in order to challenge Network Rail's costs.

5.32 We also set out below examples from other industries which help illustrate the point that competition can generate efficiencies at the upstream level of a value chain.

¹⁸⁵ 'Privately-funded Selby to Hull electrification by the end of CP6', *Rail Technology Magazine* (19 March 2015).

¹⁸⁶ ORR, *Rail Value for Money study*.

¹⁸⁷ DfT (March 2012), *Reforming our Railways: Putting the Customer First*, Cm 8313, p50.

Capacity expansion at Heathrow Airport

- 5.33 NATS is the provider of air navigation and traffic control services in the UK. In 2012, London's Heathrow Airport launched a tender process to develop a system to address the short- and long-term capacity and operational constraints at the airport. NATS was the successful bidder at the tender.¹⁸⁸
- 5.34 Heathrow Airport faces competition from other airports, including Gatwick Airport and European airports such as Frankfurt, Amsterdam Schiphol and Paris Charles de Gaulle and is therefore incentivised to create additional capacity in order to satisfy airline demand. The airlines themselves compete to attract passengers and require additional capacity in order to satisfy demand, expand their businesses and increase the reliability of their services. At the same time, NATS is a commercial business which is paid partly upon the number of movements that it facilitates into and out of Heathrow Airport.
- 5.35 This competitive environment led to an alignment of incentives between the airlines, the airport and NATS, which encouraged collaboration between the various stakeholders in order to address the capacity and operational constraints at Heathrow Airport. The solution found involved using 'big data' to provide decision support to air traffic controllers in order to enable more dynamic management of the network to improve capacity.
- 5.36 There is a similarity with the rail industry in that capacity constraints mean that demand for services exceeds available capacity on parts of the network. Moreover, both the aviation and rail sectors have access to rich data which can be used to model passenger demand. The example illustrates that cooperation by a downstream transport service provider and an upstream infrastructure provider, both with an incentive to increase capacity, was able to find an innovative solution to improve capacity; with the greater incentive to attract passengers (and so to increase capacity) that on-rail competition would bring, this example offers the prospect of improved capacity utilisation in the rail sector.

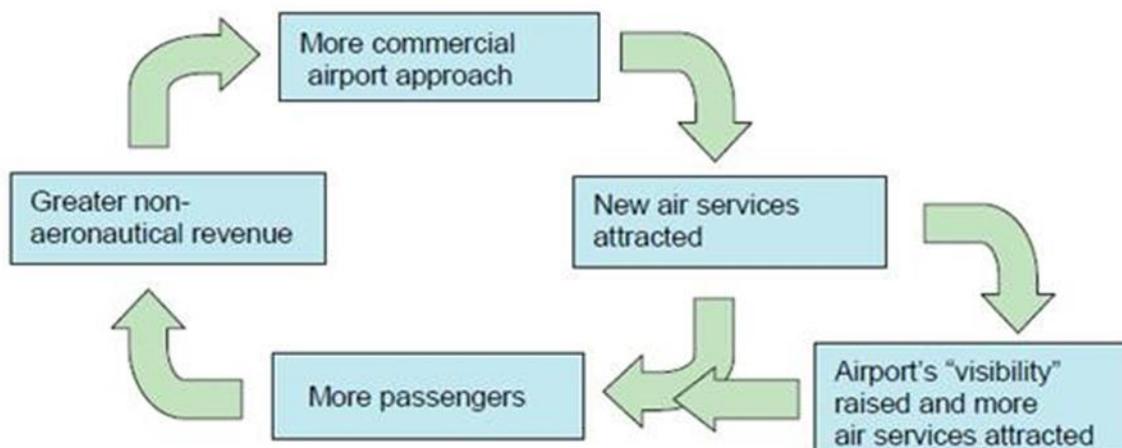
Airport management

- 5.37 Another interesting example from the air transport services sector concerns the 'upstream' pressure and positive impact that airline deregulation has had on the management of airports.
- 5.38 The air transport regulator, the Civil Aviation Authority (CAA), has described the 'virtuous circle' generated by greater competition between airlines (and

¹⁸⁸ ORR case studies.

low-cost airlines in particular) seeking to exploit new business opportunities (see Figure 14 below). In this context, airports have moved from a 'passive role' to a more commercially oriented approach in the management of their operations.¹⁸⁹

Figure 14: Airport-airline interaction – post-liberalisation of EU aviation market



Source: CAA study on No-Frills Carriers (CAP 770).

5.39 In response to airline deregulation, airports began to change the way they viewed their operations, potentially also due to a move from the public to private sector, but even where still publicly owned they started to reduce costs, price more competitively and seek out new air services.

Scottish water sector

5.40 Another example of competitive downstream market participants encouraging efficiencies in upstream markets comes from the experience of the introduction of competition into the non-household water and wastewater market in Scotland in 2008. The reforms saw the separation of the previous incumbent's 'upstream' water supply and wastewater treatment wholesale arm from its 'downstream' arm, and the opening of the retail market to competition.

5.41 The Water Industry Commission for Scotland (WICS) in its 2011 analysis with the consultancy Oxera,¹⁹⁰ assumed that vertical separation and retail competition in the downstream market would lead to efficiencies of at least 0.05% per year, giving a total net present value of savings of £110 million per year. The savings were realised and delivered a year ahead of schedule. The previous incumbent's efficiency was estimated to have been 40% below that

¹⁸⁹ CAA (2006), *No-frills carriers: Revolution or Evolution? A study by the Civil Aviation Authority*, Chapter 3, pp4–6.

¹⁹⁰ Oxera (May 2011), *Water retail market savings: the experience in Scotland*.

of English water companies in 2001 but is now comparable with that of the leading water companies in England.

- 5.42 The key mechanisms by which WICS considered this efficiency to be generated were in terms of the retailers taking up the role of 'customer champion', and putting pressure on the upstream operator to deliver services and investments tailored to the preferences of their own customers, namely downstream consumers. In the rail context, this would equate to competitive operators putting pressure on Network Rail to minimise costs and to improve service quality in terms of reliability and punctuality, and to develop the network better in the interests of passengers.
- 5.43 Although it is difficult to identify the precise effect the introduction of retail competition has had, Scottish Water has achieved remarkable gains in efficiency in recent years, closing the previously significant gap with English water companies which existed until recent periodic reviews. WICS told us it considers that the introduction of retail competition has played a significant part in this.

6. The feasibility of greater on-rail competition: Obstacles and opportunities

Introduction

6.1 This chapter considers the potential barriers and obstacles to greater competition in the passenger rail market in Great Britain and describes possible opportunities to overcome these obstacles. Barriers to greater on-rail competition and opportunities can be of a technical, economic or policy nature.

6.2 In particular this chapter deals with issues relating to:

- scarcity problems and the vertical structure of the market, ie the split between train and track;
- network capacity scarcity and the role of the system operator (Network Rail in Great Britain);
- funding the network and loss-making services;
- potential adverse effects resulting from increased on-rail competition; and
- possible obstacles to on-rail competition identified from experience in other European countries.

Scarcity problems and the vertical structure of the market: split between train and track

6.3 The structure of the value chain in the rail industry is complex. As more extensively described in paragraphs 2.6 to 2.8, after the privatisation of British Rail a model of vertical separation was chosen.¹⁹¹ As a result, there is full vertical separation between Network Rail and the TOCs on one side and between TOCs and ROSCOs on the other.

6.4 Therefore, in Great Britain, the market fundamentals required for greater on-rail competition are in place, in terms of non-discriminatory access arrangements. Moreover, as described in further detail below, ORR is reviewing the structure of charges paid to Network Rail, in preparation for the next five-year 'control period' for access charges which starts in 2019. This

¹⁹¹ See 'New opportunities for the railways – Privatisation of British Rail', presented to Parliament by the Secretary of State for Transport by Command of Her Majesty, July 1992. Horizontal separation concerns the freight operating companies.

work may create a more level playing field in terms of the risks and charges that franchisees and OAOs face (for example, by requiring OAOs to pay charges which are reflective of the fixed and variable costs of the infrastructure they use and reviewing the indemnity that franchisees enjoy against changes in track access charges during their franchises). Consequently, if the current industry framework is adapted to expand on-rail competition, train operators would, in principle, be able to compete on a level playing field.¹⁹²

- 6.5 Moreover, the system in Great Britain benefits from the impartiality obligations that feature in the Ticketing Settlement Agreement and the franchise agreements, which require impartial ticket sales (ie incumbent operators must sell the tickets of OAOs on an impartial basis). Also, in the interavailability context, arrangements are in place that enable the allocation of revenue between operators (ie ORCATS – see paragraph 6.103 below).

Access to network infrastructure

Access rights and level playing field

- 6.6 The unbundling of the rail network has created the prerequisite for a level playing field and downstream open competition in the market; however, open competition has not yet been fully achieved because of the overall design of the current industry legislative and regulatory framework.
- 6.7 Network Rail is not permitted to unduly discriminate between train operators and has to consider all applications for access rights in an even-handed way: there is no priority given by Network Rail in the application process based on the type of applicant, ie franchisees will not automatically be prioritised over non-franchisees. In this regard, we note that franchisees are committed to run the services that they bid to operate as part of the competitive process during the life of a franchise, unless there is a significant change in circumstances, although additional franchised services may be specified.¹⁹³
- 6.8 One way Network Rail handles its obligations to treat all operators fairly is through a specific body – the Sale of Access Rights Panel – which oversees

¹⁹² Although vertical separation may entail certain costs, ie higher transaction and coordination costs and possible misalignments of incentives, it creates the prerequisite for access to the market in order to allow open competition for and/or in the market, which is likely to lead to efficiency gains that more than offset the separation costs. However, a higher number of operators would also have to face a reduction in the economy of density. In the 2011 ORR consultation document, modelling exercises used elasticity of cost to density of 0.8.

¹⁹³ For example, we were told that the June 2015 Train Service Requirement under the new East Coast main line franchise is for 199 weekday services at London King's Cross, compared with 186 in March 2014 under the previous franchise. Moreover, the current services to Middlesbrough, Thornaby, Sunderland and Stirling were not included in the in March 2014 Train Service Requirement.

Network Rail's approach to access applications, in particular where selling rights to access network capacity may involve a trade-off with other Network Rail objectives (ie deliverability and performance of services, optimising network efficiency).

- 6.9 However, all new agreements to access Network Rail infrastructure and all amendments to existing agreements are subject to some form of ORR approval and direction, which is exercised in a way to better achieve its statutory duties.¹⁹⁴
- 6.10 Similarly, where Network Rail has multiple requests to access the same network capacity that cannot all be accommodated, ORR will determine who, if anyone, should be given access.

Capacity scarcity and expected enhancements

- 6.11 Despite vertical separation, technical and economic constraints on upstream inputs could create capacity constraints (ie scarcity) and result in obstacles to greater on-rail competition.
- 6.12 The majority of stakeholders told us that capacity scarcity and network congestion are currently (and in the near future) severe technical constraints limiting the offer of additional services in the market. This was also a concern in a number of European case studies. Capacity constraints in Great Britain are particularly severe on those parts of the network where demand is high and entry might be commercially viable, particularly at peak times of day.
- 6.13 It should be noted, however, that the existence of capacity scarcity on the network does not, in itself, imply that on-rail competition cannot be effective. This is illustrated by the example of extensive competition between airlines for services in and out of the London airports, even where capacity constraints exist. In the context of rail, there is potential for load factors on trains to increase at certain times of day, particularly in the off-peak period, allowing more passengers to be carried on existing services without expanding capacity. There are also examples, set out in Chapter 5, of on-rail competition leading to the identification of greater capacity on the network.
- 6.14 However, capacity expansion represents an important obstacle to the expansion of on-rail competition from its current marginal scale to a

¹⁹⁴ In this context, in addition to Network Rail's assessment, ORR is responsible for the assessment of the overall benefits of an application, including performance effects, benefits to passengers and the impacts on taxpayers.

substantially greater scale, with competitors offering a greater competitive constraint on incumbents.¹⁹⁵

- 6.15 As described in paragraph 3.6, there are a number of technological enhancements (eg introduction of on-board electronic signalling and electrification programmes)¹⁹⁶ and investment in the rail network (eg the development of HS2 and upgrading of station facilities)¹⁹⁷ that will lead to increases in capacity and, therefore, create the potential for greater on-rail competition in the future.
- 6.16 In 2012, the Secretary of State for Transport issued a statement on HLOS setting out to ORR what should be achieved on the rail network in Great Britain during CP5 (see paragraph 3.9). Moreover, the ORR's CP5 periodic review (2014–2019) assessed options for Network Rail to improve the capability of the whole system by, for example, the use of new technology. As a result, Network Rail has planned short-term (ie by the end of CP5) enhancement works (budgeted at £6 billion) aimed at improving capacity and capability. The intention is to deliver 20% more morning peak seats into central London and 32% more peak seats into major regional cities. In the long term, HS2 is planned to create approximately 352 miles of new track, which would increase the number of passenger seats on trains into London by 200%.
- 6.17 The enhancements planned for CP5 are mainly designed to meet the additional demand that is forecast over the period, while HS2's development will open up significant new capacity.

Access to rolling stock

Rolling stock scarcity

- 6.18 The ROSCOs own railway engines and carriages and lease them to TOCs on a commercial basis. The logic behind the creation of this upstream market in 1993 was the promotion of competition and the removal of entry barriers.¹⁹⁸

¹⁹⁵ As described in paragraph 4.113, capacity constraints in other European countries are often less severe than in Great Britain, also due to the fact in some cases competition takes place on dedicated high-speed networks.

¹⁹⁶ On-board electronic signalling will allow trains to run closer together and electrification will improve the acceleration of many trains. However, the impact on capacity of intercity routes may be limited by factors including station capacity and the interaction of intercity services with freight and frequently stopping services.

¹⁹⁷ Stations are key bottlenecks in the network.

¹⁹⁸ Due to the hefty investments required to manufacture a brand new piece of rolling stock, the access to these assets could in fact represent a considerable barrier to entry. This is particularly true when train companies operate on a short- to medium-term horizon, as the average economic life cycle of rolling stock is 30 years or more. See 'New opportunities for the railways – Privatisation of British Rail', presented to Parliament by the Secretary of State for Transport by Command of Her Majesty, July 1992.

6.19 However, in 2009, the Competition Commission found that there was:

a restricted choice of rolling stock available to TOCs, arising partly from operational and technical restrictions on substitutability, but also because of direct or indirect specification of rolling stock in Invitations to Tender for franchises, the costs and risks involved in switching to alternative used or new stock, and the operation of the franchise system which reduces opportunities for competition.¹⁹⁹

6.20 We understand that, currently, the availability and cost of rolling stock is still a competitive issue and may be a barrier to entry. This seems to be a particular concern for certain rolling stock types²⁰⁰ and for OAOs, which have a shorter horizon and less certainty over the length of their track access rights.

6.21 However, in the near future, this scarcity is likely to become less problematic. We understand that High Speed Trains (sometimes known as ‘InterCity 125’ trains²⁰¹) from Great Western and Mk4 electric trains²⁰² from the East Coast main line will become available when new trains are introduced on these routes as part of the InterCity Express Programme which includes the roll-out of new rolling stock (IEP units) that will be introduced into service on the East Coast main line from 2018 and on the Great Western main line from 2017. If OAOs have an opportunity to access this rolling stock, this has the potential to improve competitive conditions for re-leased rolling stock, supplementing OAOs’ ability to procure new rolling stock.

Demand uncertainty

6.22 It has been suggested to us that increased competition could lead to greater uncertainty in the volume of demand for rolling stock, consequently inducing a price increase. It is argued that this could increase the TOCs’ costs, since rolling stock lease costs represent one of the main cost drivers faced by train operators,²⁰³ thus potentially undermining any price benefit from increased competition.

6.23 However, if the overall effects of greater competition are considered, it would seem that demand for rolling stock should not be negatively affected as a result of greater on-rail competition. As described in paragraph 6.72, on-rail

¹⁹⁹ Competition Commission (7 April 2009), *Rolling Stock Leasing market investigation final report*.

²⁰⁰ We have been told that there is a limited supply of rolling stock (Class 180s) in the market and this constitutes a barrier to entry.

²⁰¹ This is the brand name of British Rail’s high-speed train, built between 1975 and 1981.

²⁰² Trains built between 1989 and 1992.

²⁰³ In 2013–2014, around 15 to 20% of all train services’ operating costs were driven by rolling stock leasing (ie £1.3 billion out of £8.9 billion – £6.5 billion excluding charges paid to Network Rail).

competition is likely to lead to growth in passenger volumes. Therefore, despite potential shifts in TOCs' market shares, the risk that there will be a drop in the number of requests to use the majority of available rolling stock is low. Moreover, in a more dynamic market for passenger services, the possibility of rolling stock 'secondary trading' taking place between operators could further insulate against any such perceived risk.

- 6.24 Furthermore, increased on-rail competition could also indirectly benefit the competitiveness of the rolling stock leasing market: (a) more commercially driven behaviours by train operators would support greater competition in the used/re-leased segment of the rolling stock market; (b) as seen from the recent open access applications on the East and West Coast main line services, OAOs are potential new entrants in the rolling stock market (whereas franchise operators are not), and this could serve to discipline and put competitive pressure on incumbent ROSCOs. Recent access applications made by Alliance, Grand Central and East Coast Trains Limited for the East Coast and West Coast main lines were all predicated on the ordering of new rolling stock fleets by open access.

Network capacity and system operation activities

- 6.25 Greater competition in the market would involve a higher number of train operators (either franchisees or OAOs) using the network. This would have an impact on network capacity utilisation and on the network system operation functions carried out by Network Rail, which would increase the importance of these functions being carried out effectively (and may imply additional costs for the system). However, as described in the following paragraphs, it may also provide Network Rail with greater incentives to make an efficient use of the present resources.

Network capacity identification

Lack of incentives for Network Rail

- 6.26 In addition to network enhancement works and investments described in paragraph 3.9, a number of ORR reports have noted that the capacity identification process could be improved in order to maximise and more efficiently manage the existing capacity, allowing more services to operate on the network.²⁰⁴

²⁰⁴ See, for example, ORR, Periodic Review 2013, 'On-rail competition: Consultation on options for change in open access', June 2013.

6.27 This activity falls within the remit of Network Rail's system operator functions. We were told by a number of train operators and other stakeholders that there is currently little incentive for Network Rail to maximise capacity utilisation, with the primary focus being on operational performance.

6.28 This misalignment of incentives is due to a number of reasons:

- Most variable charges are cost-oriented but cover only short-run marginal costs.²⁰⁵
- Fixed charges are independent from the quantity of services provided.²⁰⁶
- Performance incentives and targets have been significant in Network Rail's regulation and, considering the trade-off between punctuality/reliability key performance indicators (KPIs) and capacity maximisation, they impose a disincentive to make additional capacity available.
- Lack of incentives could also result from Network Rail's ownership structure (ie it is a 'for profit' but not for dividend company) and in the incentive schemes applied to its senior management.

6.29 Moreover, some inefficiencies have been a consequence of the lack of flexibility resulting from the detailed specification of franchise agreements. More flexible access rights make it easier to optimise the use of network capacity, reflecting the requirements of all beneficiaries, particularly as the network becomes even more intensively used and infrastructure projects come to fruition.²⁰⁷ As highlighted in the section below, this could also support greater flexibility in franchise specification.

6.30 In order to take steps to tackle this misalignment of incentives, in CP5, ORR undertook a recalibration of variable charges resulting in a substantial increase in the capacity charge, reflecting scarcity and the aim of covering the network cost in terms of impact on the network performance (ie the capacity charge grows exponentially in the congested area).²⁰⁸ In addition, ORR introduced a strengthened volume incentive mechanism,²⁰⁹ designed to

²⁰⁵ In a commercial setting, Network Rail would charge prices which are set above its short-run costs so that it would profit by selling more of its network capacity.

²⁰⁶ Fixed charges cover Network Rail's remaining costs after variable charges, other single till income and the network grant.

²⁰⁷ This is consistent with the new approach to specification of access rights in track access contracts adopted by Network Rail's Sale of Access Rights Panel and ORR, leading to the use of 'quantum rights' as the starting point when negotiating new access rights.

²⁰⁸ Franchised operators are largely protected from this increase under the terms of their franchise agreements.

²⁰⁹ The volume incentive mechanism consists of payments made to Network Rail in the event that, for example, passenger train miles exceed a predetermined baseline. From CP5 onwards, the volume incentive also includes a downside with symmetric payments made by Network Rail to the government if passenger train miles fall below

encourage Network Rail to make trade-offs when deciding whether to meet unexpected demand similar to those which a company operating in a more commercial setting would make. ORR is considering further how to give more incentives to Network Rail through more cost-reflective charging schemes. The intention would be to incentivise Network Rail to manage the network capacity more efficiently and to incentivise its customers to use that capacity more efficiently.

Impact of on-rail competition on capacity identification

- 6.31 On-rail competition can have, and has had, a positive impact on the capacity identification and maximisation process, because of the strong incentives of new entrants to identify additional capacity.
- 6.32 The open access applications proposed to Network Rail have often identified additional capacity in the network – allowing more services on the network – and led to efficient path allocation solutions. In general, one of the benefits of competition ‘in’ the market is that it provides incentives for the efficient use of available resources.
- 6.33 Competition between overlapping and parallel franchises has also provided incentives to innovate and invest in the network. For example, on the London–West Midlands route, Chiltern Railways undertook major upgrade work on the network in partnership with the Network Rail (see Appendix C), in response to faster and more frequent services launched by Virgin Trains.
- 6.34 London Midland was incentivised by the competition it faces from Virgin Trains on the West Coast main line and from the parallel Chiltern Railways franchise to invest in new capacity in order to grow its revenue and to limit the opportunity for scarce paths to be consumed by competitors (which would, in turn, limit its ability to expand in the future).²¹⁰ The timing of London Midland’s proposal to increase capacity coincided with the end of Virgin Trains’ moderation of competition clause in 2012 and was only made possible by the lifting of the restrictions.
- 6.35 As a franchised TOC, London Midland has the ability to influence only some of the factors relevant to the provision of capacity (such as timetabling, light train maintenance and modifications and some element of rolling stock choice). Other factors, such as infrastructure upgrades and major procurement of rolling stock, are generally led or supported by other parties. London

the baseline. ORR introduced a payment floor of –£300 million and a ceiling of +£300 million in order to balance the risk of the incentive becoming inactive, against affordability concerns for both government and Network Rail.
²¹⁰ ORR case studies.

Midland therefore explored factors within its direct control in its search for a capacity enhancement solution.

- 6.36 The chosen solution minimised the requirement for new rolling stock by focusing on a modification to existing units. Services operating on key flows from Euston were accelerated from 100mph to 110mph through rolling stock modifications and a small procurement to fulfil the additional requirement at peak times. London Midland's project team found that with this approach it was possible to operate two services in a single train path. This allowed an additional service to be added into each off-peak hour in 2012 and two additional morning peak services and five evening peak services to be added in December 2014. This produced around 4,000 extra seats in the morning peak and around 8,000 in the evening peak.
- 6.37 Competition was a driver for the capacity increase in two ways – the incentives from competition between train operators and, during the options evaluation process, competition to produce the best solution and be granted access rights.
- 6.38 However, under many of the current franchise agreements, there are limited incentives for most franchisees that are not subject to competitive pressure to seek to maximise the use of capacity on routes where they operate. In particular, once a franchise agreement is under way, there may be limited incentives for franchisees to increase the number of services that they run. This disincentive is most likely where franchisees have a cap and collar risk-sharing mechanism with the government or where the franchisee operates under a management contract with the government bearing full revenue risk (such as in the Thameslink, Southern and Great Northern franchise). Franchisees that are exposed to the full revenue risk of the franchise (such as Chiltern) and those franchisees with new risk-sharing mechanisms will have greater incentives to run more trains.
- 6.39 In this regard, we welcome the DfT's reforms to the franchising system in order to develop franchisees' incentives to innovate responsively to passenger demand and to reform the mechanism for sharing risk between franchisees and government.

Operational issues

- 6.40 It has been put to us that greater on-rail competition through open access operations could lead to:
- inefficient use of network capacity, resulting from the potential for a multiplicity of operators on the network, with varied journey times and

stopping patterns, and using a wider range of rolling stock with different performance and reliability characteristics; and

- greater complexity in operating the network, in terms of developing a robust timetable, regulating services and in making strategically important changes to facilitate the provision of new services (such as the introduction of HS2). It was suggested to us that, with a greater variety of services operating within a more complex timetable, any deviation from on-time operation could be more likely to have a wider knock-on effect on other services and on overall punctuality. We were also told that decisions on how to respond to severe disruption could be more difficult to manage given potentially conflicting commercial interests. The presence of multiple operators might also reduce the flexibility in the use of rolling stock in the network.

6.41 We consider these issues in greater detail below. More generally, we note that our proposed options would only be introduced as the current network capacity constraints begin to relax, as a result of Network Rail's longer-term enhancements and innovations such as on-board electronic signalling coming on stream.

Performance and interconnectivity

6.42 Rail services competing on a larger scale would require an increased focus on interconnectivity, ie ensuring that different train operators' service paths efficiently interconnect with each other at the stations in order to exploit the full value of the network and the possible growth in demand and service frequencies. This task becomes more challenging to the extent that competing operators are asymmetric in terms of scale.²¹¹

6.43 Moreover, additional rail services could affect network performance (in terms of punctuality and reliability) on an already congested network, as the network would be more intensively used. This would occur if no additional capacity were made available by either proceeding with network enhancements (ie using new technology) or enhancing the methods and procedures for identifying and managing capacity.

6.44 It was put to us by a franchisee-only TOC owner group that greater on-rail competition may have an adverse effect on punctuality by increasing the difficulty of coordinating traffic on the network. Indeed, concern about the potential for overlapping franchises creating operational conflicts formed part

²¹¹ This is because a 'dominant' operator would not have direct incentives to schedule its train services so as to ease the interconnections with the services of smaller competitors.

of the rationale behind the franchise re-mapping and simplification carried out by the SRA.

- 6.45 There appears to be relatively limited empirical evidence available in relation to this concern that would prove to be conclusive. Arup (2009) examined evidence on the Public Performance Measure (PPM), which reflects punctuality, finding that some franchise re-mappings which reduced franchise overlaps may have resulted in improved punctuality. However, Arup (2009) also found that punctuality on the East Coast main line improved in the period in which open access was introduced.²¹²
- 6.46 This is consistent with the view put to us by some industry experts that the impact of on-rail competition on performance may be route-specific. For example, capacity bottlenecks on the network affect different routes to varying degrees and, in turn, the impact that a greater number of operators has on punctuality. The successful operation of three franchisees between Newcastle and Edinburgh – a section of the East Coast main line with less severe capacity constraints – was cited by one OAO as evidence of this. Network Rail also cited examples, such as London Midland and Virgin Trains competing on the West Coast main line without an adverse impact on punctuality.
- 6.47 The extent to which the rolling stock and stopping patterns of competing operators differ may also determine the impact of competition on performance. Similar rolling stock operating services with similar calling patterns is less likely to create operational conflicts, although we note that a number of franchises successfully operate with a mix of rolling stock (including the Greater Western, East Midlands Trains and East and West Coast main line franchises). In this regard, we note that ‘head to head’ on-rail competition would provide an incentive for operators to compete to serve key stations with the latest rolling stock – a possibility not open to the current ‘marginal’ OAOs. Moreover, in reviewing open access applications, ORR examines the rolling stock that OAOs plan to use to operate their proposed services and would not grant access where there would be any significant adverse impacts on performance.
- 6.48 It was also put to us that the ‘Schedule 8’ indemnity that is included in track access agreements incentivises operators to plan their services in a way that will not disrupt those of other operators and incentivises Network Rail to coordinate the services of different operators as effectively as possible. This is

²¹² Arup (2009) found that PPM on the East Coast main line improved on the routes that it examined between 2004–2005 and 2008–2009 from 81 to 86.9%. Grand Central’s PPM improved to ‘around 90%’ in 2009 and First Hull Trains saw its PPM increase to 80.2% in 2009.

due to the fact that Schedule 8 compensates train operators for the impact of unplanned service disruption due to poor performance which is attributable either to Network Rail or other train operators. Compensation payable covers fare revenue losses and costs (eg the cost of running replacement bus services).

- 6.49 In any event, as explained in the previous paragraphs, more capacity is coming on-stream as a result of technical and regulatory enhancements. Improving system operator capability as new technology is implemented will also facilitate the coordination of more services.
- 6.50 Moreover, greater on-rail competition would help to provide the correct signals and information for deciding on market trade-offs, eg between capacity maximisation and performance (ie punctuality/reliability), in a more effective way than would a merely centralised process (see paragraph 5.27). For example, a system that allowed operators to be more responsive to passenger demand may better reflect the preferences of some passengers for fast services and others for services calling at intermediate stations.
- 6.51 It should also be noted that many operational factors, such as the requirement to provide unprofitable but socially valuable services (eg PSOs), which may include stops at less popular but nevertheless strategic stations, and to run suburban services alongside intercity services into key terminus stations in urban areas, will have some impact on performance regardless of whether there is greater on-rail competition.

Recovery from disruption

- 6.52 It was put to us that it would be more difficult for the network to recover from disruption with a greater number of competing operators. However, the system is already designed to work with multiple operators (with most routes having more than one passenger or freight operator). Network Rail actively manages the response to disruption and current rules provide arrangements for ticket acceptance across operators once a certain disruption threshold is reached. Part H of the Network Code²¹³ includes a requirement for operators to comply with the Railway Operational Code, which obliges operators to work together to recover from disruption, having regard to the needs of passengers and freight customers. Operators also have a range of obligations to provide passenger information during disruption, stations already show passengers all

²¹³ The Network Code is a common set of rules and industry procedures that apply to all parties with a contractual right of access to the track owned and operated by Network Rail.

trains operating, and ORR is able to deal with inadequate responses to disruption through operators' licences.

Conflicting slot requests

- 6.53 Within the current framework, the slot allocation process is subject to prioritisation of existing access rights allocated within the franchise agreements. Once the additional service applications (either from open access or franchised operators) have been successful and resulted in a track access agreement (subject to ORR approval and guidance),²¹⁴ 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.²¹⁵
- 6.54 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.²¹⁶ In the case of conflicting requests having 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.²¹⁷
- 6.55 An increased level of competition would lead operators to propose timetables that could include a higher number of conflicting slot requests. In an enhanced competitive environment, the system operator has to design a non-discriminatory and efficient slot allocation mechanism.
- 6.56 ORR is currently undertaking work with a view to improving Network Rail's performance as a system operator, building on the commitments given in its PR13 determination. In particular, the project is looking at improving the availability of information about system operation activities, including through the publication of a system operation 'dashboard', and is also starting to

²¹⁴ See paragraph 2.101.

²¹⁵ The Network Code is a common set of contractual provisions incorporated by reference into every regulated track access agreement between Network Rail and a TOC. It concerns areas where common processes are necessary or preferred, such as delay attribution (Part B), timetable change (Part D), vehicle change (Part F) network change (Part G), operational disruption (Part H), changes to access rights (Part J), performance (Part L) and appeals (Part M). Access Dispute Resolution Rules are in the Annex.

²¹⁶ As mentioned previously, the RUS process applied to existing services, identifying capacity requirements and proposing interventions to meet them. RUSs will gradually be replaced by the Long Term Planning Process (LTTP). This 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.

²¹⁷ The Network Code also contains rules for access dispute resolution, either through mediation or a determinative process, such as the timetabling panel (TTP), for which ORR is the final appeal body.

consider how the regulation of system operation activities could be improved as part of the next periodic review.

- 6.57 Moreover, in a context of greater on-rail competition, different allocation systems could be considered, eg the airport slot allocation system.²¹⁸ Although there may arguably be greater complexities in slot allocation in railways than in air transport (airport slots are for take-off and landing only, whereas rail slots must reserve track for the whole journey), it seems plausible that Network Rail could take a more active role in managing the timetable, while reforms to access rights could increase flexibility, opening up more opportunities for new entry. An alternative slot allocation mechanism (if associated with a level playing field) could be based on a ‘cooperative approach’, ie having the system operator to facilitate agreement between parties.²¹⁹ Finally, there have been policy proposals looking at slot auctioning mechanisms, in particular combinatorial auctions, where participants make their bids contingent on getting a set or combination of the rights being auctioned rather than having to bid for rights individually.²²⁰

We are conscious of the operational complexities involved in introducing greater on-rail competition and welcome responses from consultees on the likely impact of our options for increasing on-rail competition on the efficient and effective operation of the network, having regard to the considerations set out above.

²¹⁸ Airport slot allocation is regulated by Council Regulation 95/93 (amended by Regulation 793/04 and clarified by Communications adopted in 2007 and 2008). Its main principles are: (i) transparency and non-discrimination; (ii) ‘grandfathering’ – existing users retain slots subject to rules governing the frequency (at least 80% during the summer/winter scheduling period); (iii) slot switching – slots which are not sufficiently used by air carriers are reallocated, the so-called ‘use it or lose it’ rule; (iv) promotion of new entrants’ access – if the 80% threshold is not reached, the slots go to a slot pool for allocation and 50% of the pool slots are allocated first to new entrants (defined as a carrier with only a limited presence at an airport). Finally, the airport package adopted on 1 December 2011 explicitly allows airlines to trade slots with each other at airports anywhere in the EU in a transparent way (‘secondary trading’).

²¹⁹ Partially similar to the slot allocation system in Sweden. In this regard, we note that slot allocation takes place successfully in a number of European countries with on-rail competition.

²²⁰ This is because the latter would imply the risk of allocating a set of paths that (i) would not allow TOCs to provide a viable service and/or (ii) would not allow Network Rail to have an efficient outcome in terms of interconnectivity. See Cave and Wright (2010).

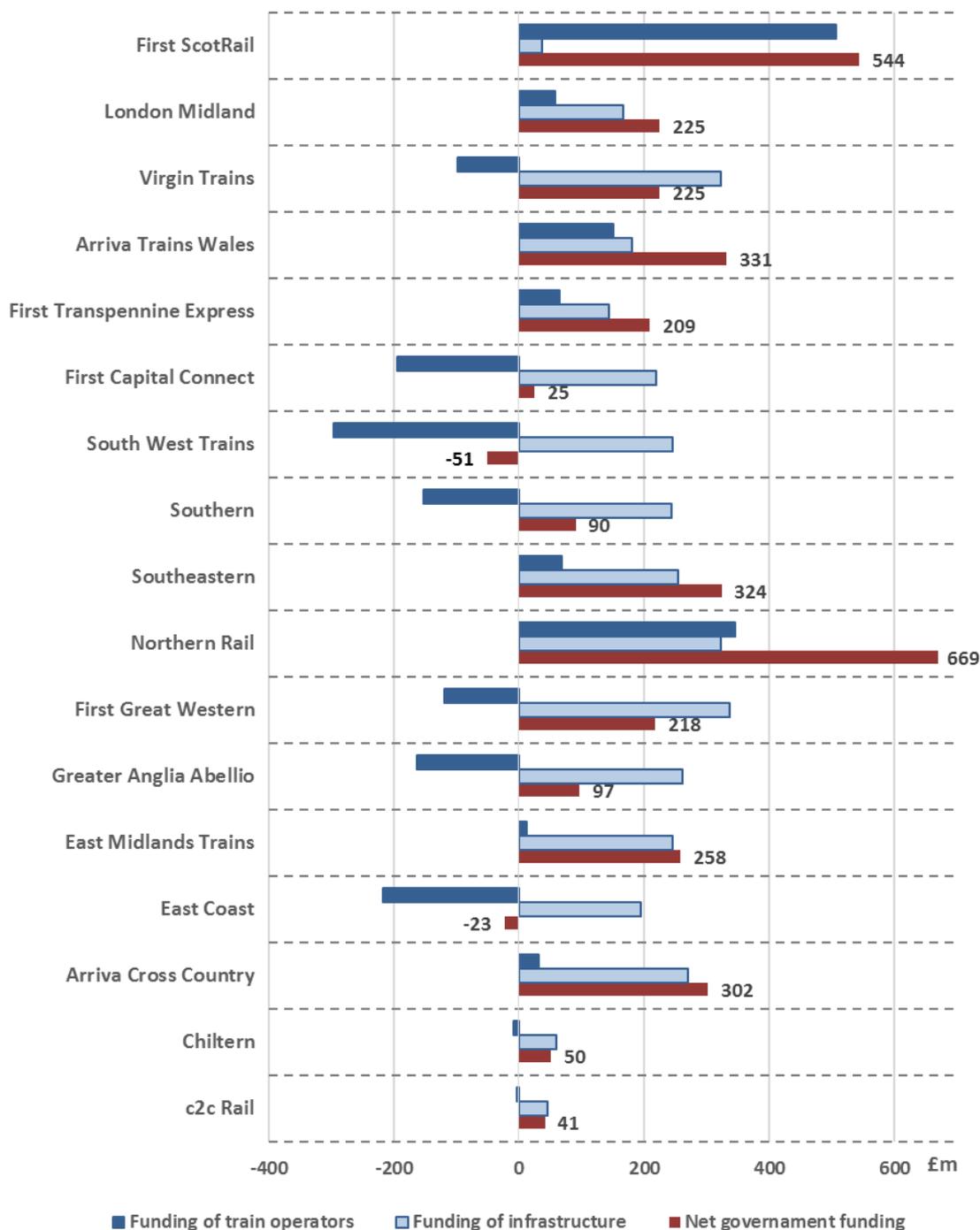
Funding the network and unprofitable ‘public service’ operators

Introduction: loss-making services and their funding mechanism

- 6.58 The rail industry is a highly subsidised sector, providing a great number of socially valuable services, some of which are loss-making. The unprofitable element of a train service could concern:
- the entire route; or
 - specific stopping patterns, ie only certain stops on a route could be loss-making; or
 - services operated at a particular time of day (for example, the first and last train services may be loss-making).
- 6.59 Loss-making and profitable services are often bundled together in a single franchise, so that the franchisee finances unprofitable services to some extent through cross-subsidy from its profitable services.
- 6.60 From an economic point of view, in order to identify what services are loss-making and quantify those that are subsidised, it is necessary to consider the industry value chain as a whole. Therefore, in addition to the revenues and costs originated at downstream level, the relevant portion of expenditure and revenues originated by the management of the upstream assets, ie track, stations and other essential facilities, should be allocated.
- 6.61 Figure 15 below provides a simplified description of the premiums paid (negative figures) or subsidies received (positive figures) by franchisees (dark blue bars), as well as notional allocation of the government’s funding of the network infrastructure for each operator (light blue bars). Finally, as a result of those two components, the net government funding per operator is described (red bars).²²¹

²²¹ The network grant has been allocated to each franchise area in proportion to the residual Network Rail income less expenditure calculated for each franchise.

Figure 15: The contribution of government funding to Network Rail and train operators analysed by operator



Source: Analysis of data from ORR, GB rail industry financial information 2013–2014.

6.62 The figure shows that there are few operators paying premiums to the government (negative dark blue bars). In absolute terms, as described in paragraph 2.96, in 2013–2014 these premiums initially offset the subsidies: the government made an overall net contribution to franchised operators of just £0.1 billion. However, in the same period the government subsidised the network in all franchise areas, contributing via the network grant a total of £3.7 billion to the funding of the network. Taking into account the allocation of

government infrastructure funding, there are only two franchisees which receive no subsidy, ie East Coast and South West Trains (negative red bars).

The impact of on-rail competition on government funds

How on-rail competition may threaten government funds

- 6.63 Greater on-rail competition may put at risk the level of premium paid by franchise bidders. As set out in Chapter 2, in the current framework, franchisees pay £1.9 billion in premiums per year to the government while loss-making franchises receive £2.0 billion per year in subsidies (the greater subsidy for the network comes by way of £3.7 billion a year in direct grant from the government to Network Rail).
- 6.64 Within the franchise bidding procedure, participants mainly compete for the market in terms of the level of subsidies (positive or negative) needed from the government to operate the rail services. An increased level of competition in the market is likely to reduce franchisee operators' overall revenues, because (a) consumers are partly transferred from the franchised operator to the competitor(s) and (b) prices decrease due to competition.
- 6.65 Any significant reduction in premium payments would threaten:
- (a) the funding of network infrastructure investment (ie new entrants 'free-riding' on incumbents' investments – which could, in turn, undermine the business case for the government to make new investments²²²); and
 - (b) the funding of services deemed socially valuable even if uncommercial such as PSO operations (ie 'cream-skimming').
- 6.66 This risk is currently tackled by: (a) re-mapping the franchise area in a way to limit franchise overlaps and competition;²²³ and (b) moderating open access competition, by allowing entry only if expected to imply it is not primarily abstractive of revenue from franchised operator (NPA test).²²⁴ However, as set out below, it has been suggested to us that there are grounds to expect that the threat to funding from greater on-rail competition may not be as severe as supposed.

²²² For example, franchise premiums were a critical element of the business case for major investments such as the InterCity Express programme for new rolling stock.

²²³ Policy is implemented by the DfT in the franchise design.

²²⁴ The NPA test is an economic assessment conducted by ORR and has the function of balancing its objectives of enhancing competition and preserving government funds.

6.67 In any event, our options for reform set out in Chapter 7 seek to ensure that there is no (or limited) adverse effect on government revenues, by ensuring that most of any shortfall through a reduction in franchise bid premiums would be recouped.

Impact of on-rail competition on prices and costs

6.68 As for the impact on prices, increased on-rail competition would exert a downward pressure on prices and affect the level of cross-subsidisation to unprofitable services from profitable services (where competition would be likely to emerge). This would therefore increase the amount of government funds that are necessary to finance the system, although it would also generate a positive impact in the form of passenger benefits.²²⁵

6.69 In any event, competitive pressure could have a positive impact on overall productive efficiency, giving incentives to franchised operators to become more efficient and thus reducing the costs of providing both profitable and unprofitable services. As a result, the overall scope for loss-making services would be reduced.

Impact of on-rail competition on demand

6.70 There is evidence that on-rail competition can generate demand growth.

6.71 Generally speaking this effect is mainly due to:

- OAOs very often targeting previously unmet but existing demand;²²⁶
- on-rail competition improving the quality of service and growing the market by leading to a transfer of passengers to rail from other transport modes.

6.72 Analysis of data (described in Chapter 4) during the period 2007–2012 indicated that stations along the East Coast main line where operators provided competing services connecting to London, experienced a higher growth in terms of passenger journeys (on average, an increase of 42%) than the stations where there was no competition (on average 27%), through a combination of generating new traffic and attracting passengers from other stations/operators.

²²⁵ Currently, almost 70% of the industry funding is derived from passengers (see paragraph 2.90).

²²⁶ In addition, the positive network effect of a new service ‘feeding’ the interconnected services of franchisees should also be taken into account.

- 6.73 Furthermore, there is similar evidence that the East Coast stations experiencing competition had a greater revenue increase (57%) than the stations where there was no competition (48%) (see paragraph 4.55).
- 6.74 Some stakeholders suggested it is worth considering that OAOs provide niche services to areas which were previously poorly served, achieving growth by invigorating 'hidden' markets and feeding franchised services via connections. Therefore market growth would, at least in part, be a consequence of the residual/incremental type of competition and this may not hold when allowing competition on a larger scale.
- 6.75 However, most of the European cases examined showed that competition in the market has led to a material demand growth. In some cases this implied a very limited revenue abstraction from the incumbent operator, even when the market share of the competitors in the relevant segment became relevant, eg higher than 20% (see paragraph 4.107).

The impact of on-rail competition on recent franchise awards

- 6.76 Considering the recent franchise awards, it is not possible to clearly assess the impact of on-rail competition on historic franchise bids.
- 6.77 In a number of tenders for franchises, bids have increased in value notwithstanding the presence of actual or potential on-rail competition.
- 6.78 Evidence from the East Coast main line shows that significant franchise premiums can be maintained, and indeed, increased on routes with significant current and prospective open access operations. GNER, the winner of the 1996 franchise competition, bid on the basis of an average premium of £130 million per year. In 2007, National Express won the franchise competition, bidding on the basis of an average premium of £190 million per year despite First Hull Trains having launched services in competition with the franchisee in 2000 and the award of access rights in 2006 for Grand Central to offer services from London to Sunderland.²²⁷
- 6.79 However, it is extremely difficult to build adequate counterfactual scenarios, confirming how high bids would have been absent on-rail competition. For example, the West Coast main line franchise has not been re-let and the

²²⁷ We note that, for a number of different reasons, the GNER and National Express franchises ultimately failed before the completion of their franchise terms. In the 2014 East Coast franchise competition, Stagecoach and Virgin bid on the basis of an average premium of £410 million per year, despite the growth of First Hull Trains and Grand Central since 2007 (including Grand Central's introduction of services to Bradford in 2010). However, in the 2014 competition, bidders were indemnified against 80% of any revenue loss from failing to obtain sufficient train paths on the network to deliver the franchisee's key specified services, eg as a result of new open access services commencing during the period of the franchise.

East Midlands and Greater Western franchises changed in size when they were re-let.

- 6.80 There are also a number of examples of on-rail competition leading to franchisees increasing the number of services they run, including Chiltern Railways' main line services from London to Birmingham and London Midland's West Coast main line services, this, in turn, growing the value of the franchises. Moreover, we note that the most recent East Coast franchise specifies new services to destinations originally identified and made commercially viable by OAOs, such as Sunderland, again growing the value of the franchise.
- 6.81 Separately, it is worth noting that the UK government's stake in Eurostar was sold this year at a high price (more than £750 million) despite the prospect of increased competition from other operators, including DB.
- 6.82 We have had some indication from the DfT of the magnitude of the potential impact of recent open access applications on the finances of Virgin Trains East Coast, the franchise holder for East Coast main line routes, should it be unable to secure the necessary train paths to deliver the key services specified in its franchise as a result of open access operations. The financial impact would be significant, although we have been told that the calculations do not take into account the dynamic benefits of on-rail competition to passengers and taxpayers.

The effect of greater on-rail competition on investment business cases

- 6.83 The business cases for new investment in infrastructure are based on the expected costs and economic benefits of the investment. It was put to us that having multiple operators on a route may undermine the business case for investment as the government is less able to forecast the utilisation of the new infrastructure (ie as it will not be fully specified to be operated by a franchisee).
- 6.84 However, if the business case is economically credible and the demand forecasts accurate, the investment is likely to be fully utilised regardless of the identity of the operators. As set out above, there is also evidence that greater on-rail competition leads to growth in passenger numbers, and to more efficient discovery and use of capacity, which should therefore boost the business case for investment (in this regard, we note that First Hull Trains is seeking private sector finance to electrify the line from Selby to Hull – an initiative that both it and franchisees would benefit from). Moreover, the wider economic case for investment, including socio-economic benefits, should not be adversely affected by on-rail competition.

6.85 More generally, in order to recover the costs of investment in infrastructure, it would be possible to charge a fee to train operators using new infrastructure. This approach was adopted in order to finance the Chiltern Railways 'Evergreen' project which enhanced capacity between London and Birmingham (see paragraph 6.33) and is proposed in the plan by First Hull Trains to electrify the line from Hull to Selby (see paragraph 4.46).

Fixed access charges and the network grant

The contribution of OAOs to fixed network costs

6.86 The current access charge framework scheme (described in paragraph 2.100) was not primarily designed to sustain or promote a high level of competition in the market, especially from OAOs.

6.87 OAOs currently pay only variable charges, not contributing (or contributing to a smaller extent)²²⁸ to the network fixed costs. The rationale of this charging differentiation is based on the different levels of risk involved in building a commercially viable OAO operation and to allow for the efficient use of otherwise underused capacity. Compared with franchisees, OAOs have marginal and limited access to the network.²²⁹

6.88 Within a scenario of increased open access competition and a level playing field, allowing OAOs to enjoy access rights similar to franchised operators, OAOs could be asked to pay an increased contribution to network costs through increased track access charges, as considered in our possible options for reform set out in Chapter 7. Within a proper time frame²³⁰ and adopting a cost-reflective approach to charge setting, OAOs could fairly contribute to the fixed costs of the network through some form of charges mark-up, thus reducing any impact on government or passenger funds.

6.89 Although in general terms the franchise premiums and subsidies approximately net each other off, franchise services are still in receipt of an indirect subsidy through the network grant. Consequently, across the whole network, revenues from passengers using a franchise service do not cover the costs of providing the network.

²²⁸ OAOs actually, to a certain extent, also pay for infrastructure enhancements, ie any directly attributable CAPEX costs.

²²⁹ See decision of the English High Court (2006 EWHC 1942 (Admin)) concerning the alleged differentiated charging policy for franchisees and OAOs, considered in paragraphs 2.104 & 2.105.

²³⁰ The affordability of this additional cost for OAOs could be relevant. It could be worth considering a transitional mechanism and/or leave the choice between having 'marginal' OAOs and 'expanded' OAOs.

- 6.90 However, the netting-off conceals the fact that profitable franchise services cross-subsidise unprofitable ones. In so far as OAOs would reduce premiums paid to government, there is a case for OAOs to contribute to loss-making services.²³¹ Furthermore, an OAO running an equivalent service to a franchise operator would not currently pay FTAC and so would not make as great a contribution from ticket revenues to network costs as a franchised service.
- 6.91 In principle, different compensation mechanisms could be adopted, eg a universal service levy²³² or some obligations to operate unprofitable but socially valuable services being imposed on new entrants as well as incumbents²³³ or a combination of these mechanisms (which are considered in greater depth in our options for reform set out in Chapter 7).

Cost-reflective access charges

- 6.92 The current funding and charging model leads to charges that reflect the short-term variable costs imposed by operating trains on the network, but otherwise sets charges that recover fixed costs from franchised operators in a way that does not closely reflect the longer-term costs of their use, or the scarcity of capacity (the total costs of providing the network are currently much higher than the amount raised each year through FTAC). This raises the prospect that, since the prices for using the network are not fully cost-reflective, if new entrants were to face these costs, they would not receive the right signals as to whether it makes sense to run their services, ie whether the benefits of running their services outweigh the (actual) costs. If charges were more cost-reflective, eg if they distinguished more between areas with higher demand/cost and lower demand/cost, this could act to send more effective signals to new entrants.
- 6.93 A positive development in this respect is that, in CP5, ORR embraced a more cost-reflective approach to access charge definition. First, as set out above, ORR substantially increased the capacity charge,²³⁴ in order to reflect scarcity and to ensure the recovery of network costs according to network performance.

²³¹ The actual level of contribution should account for any efficiency gain affecting the profitability of PSOs. OAOs are usually considered to be more cost-efficient than franchised operators (see paragraph 5.10); therefore they may be able to profitably operate some of the PSO services currently (cross-) subsidised. Moreover, due to competition, franchised operators will be incentivised to reduce their costs, positively affecting the overall value of the franchise.

²³² This system has been adopted in the telecoms sector of some countries in South America, Africa and Asia, eg universal access and service funds (UASFs).

²³³ This solution has been adopted in Sweden (see paragraph 6.120).

²³⁴ The capacity charge recovers Network Rail's Schedule 8 compensation costs that vary with traffic.

- 6.94 Furthermore, ORR undertook a general recalibration of all charges in order to improve the extent to which charges reflect underlying infrastructure costs. ORR used up-to-date estimates on costs (eg on the electricity asset usage charge²³⁵ and coal spillage charge²³⁶) and improved its cost models (eg on the traction electricity charge²³⁷ which is now charged on the basis of metered consumption and the variable usage charge²³⁸ which is now set based on new research and evidence on how variable costs vary by vehicle). Moreover, ORR considered some avoidable network costs which were not previously recovered by other charges and reflected those costs in the charging scheme: for example in CP5, a new freight-specific charge,²³⁹ payable for the haulage of coal for the electricity supply industry, spent nuclear fuel and iron ore, was introduced.
- 6.95 In addition, ORR is working with the industry to review of the structure of track access and related charges paid to Network Rail, which may remove some of the distortions in the current funding structure that are impediments to increased competition. The new structure should be in place by the time of the ORR's next periodic review in 2018, before any of the changes we are proposing would come into effect.

Franchise scope and service specification

Scope of franchises and public service contracts

- 6.96 In Great Britain, franchises often include a bundle of profitable, potentially competitive, routes and loss-making routes. The adoption of this funding approach has resulted in the majority of passenger rail services – around 99% – being included in franchises,²⁴⁰ covered by public service contracts (franchise agreements), and therefore potentially considered PSOs.²⁴¹
- 6.97 This extensive designation and allocation of unprofitable but socially valuable services, including PSOs, represents an obstacle to greater on-rail

²³⁵ The electricity asset usage charge mainly recovers the cost of maintenance and repair of electrification assets that vary with traffic.

²³⁶ The coal spillage charge recovers the cost of coal spillage from freight operators transporting coal.

²³⁷ The traction electricity charge recovers the cost of providing electricity for traction purposes.

²³⁸ The variable usage charge recovers maintenance and repair costs that vary with traffic.

²³⁹ The freight-specific charge recovers some of the network-wide fixed and variable costs that would be avoided by Network Rail in the absence of freight traffic.

²⁴⁰ In 2012, the average percentage of PSOs in Europe was 65% in terms of passenger/miles.

²⁴¹ Article 2(e) of EU Regulation 1370/2007 defines a PSO as 'a requirement defined or determined by a competent authority in order to ensure public passenger transport services in the general interest that an operator, if it were considering its own commercial interests, would not assume or would not assume to the same extent or under the same conditions without reward'.

competition²⁴² because it allocates the great majority of the available capacity (which is a scarce resource)²⁴³ to franchisees and creates exclusive/special rights (and obligations), limiting market-oriented behaviour.

- 6.98 Due in part to the need to protect profitable services from competition, franchise overlaps have been progressively reduced in recent years (see paragraph 4.64). Moreover, additional commercially driven services would be likely to abstract revenue from franchised operators on both profitable and unprofitable services.
- 6.99 In most European cases considered where on-rail competition has developed, the percentage of PSO services over total services is much lower, especially on high-speed and long-distance routes where the simple average is around 30% against more than 80% for Great Britain (see paragraph 4.115).²⁴⁴ Furthermore, in those cases, there is often a clear-cut distinction between commercial and PSO services, ie the PSO services are more clearly defined to cover unprofitable but socially valuable services and open access competition focuses only on non-subsidised areas.

Franchise agreement specification

- 6.100 A further obstacle to competition arises from the fact that, in Great Britain, franchise agreements are generally very detailed and specified, even in those areas where the market could provide the right signals. This leaves limited room for franchisees to act by adopting commercially driven strategies and to effectively react to competitive pressures.²⁴⁵
- 6.101 In addition to limiting the potential for competition, this approach implies some hidden costs which should be considered in a broader cost/benefit analysis. These costs arise due to the lack of transparency in market dynamics and signals, the limited ability for operators to respond to market evolution and, finally, the high risk of regulatory failure associated with a highly centralised approach to market design.²⁴⁶

²⁴² As previously highlighted, PSO services in Great Britain are generally awarded by way of competitive procedure, thus resulting in a very high level of competition 'for' the market.

²⁴³ There are two ways to identify capacity: (i) DfT specification in the franchise agreements; or (ii) OAOs' (or franchisees' additional track access) applications to Network Rail and ORR.

²⁴⁴ The European countries considered are Austria, the Czech Republic, Germany, Italy and Sweden.

²⁴⁵ After 2010, the franchise structure was revised, with more freedom introduced in some areas, such as future rolling stock procurement. 'Cap and collar' has been abandoned, replaced in some cases by a risk-sharing mechanism reflecting exogenous risks such as GDP changes.

²⁴⁶ Centralised intervention in the market is of course necessary in the presence of either market failures or socially desirable outcomes, which market interactions cannot provide. However, this must be considered on the basis of a 'proportionality' principle, because public institutions do not have complete information, which is provided more fully by decentralised interactions when possible.

Potential adverse effects of increased on-rail competition

Interavailability of tickets

- 6.102 An increased level of competition in the market would result in a higher number of TOCs (either franchisees or OAOs). As many passengers value the ability to change their travel plans, it is worth considering how competition may support the practice of passengers selecting the ‘turn up and go’ option, ie the possibility to use the first train service available.
- 6.103 In order to overcome this problem, interavailable tickets have been developed. The passenger pays for a ticket which can be used on any of the various competing train operators’ services, rather than dedicated tickets which are only valid on a single operator. Currently, interavailable fares account, on average, for 37.5% of revenue.²⁴⁷ Revenue from interavailable tickets is allocated among the train companies using a computerised system known as ‘ORCATS’.²⁴⁸
- 6.104 Although TOCs have an incentive to compete for passengers using dedicated fares, the competition for passengers using interavailable fares is weaker, as TOCs cannot currently compete on price to attract passengers who value interavailable fares.²⁴⁹ Moreover, in a context of on-rail competition, it may give rise to so-called ‘ORCATS competition’ characterised by inefficient strategic behaviours (such as scheduling train services slightly before competitors), aimed at maximising ORCATS revenue allocation.
- 6.105 However, it should be noted that:
- Passenger preference for interavailable tickets is much stronger on commuter services than on intercity routes where, generally speaking, on-rail competition has the greatest potential to develop. Furthermore, passengers’ preference for interavailable travel is greater on regional and commuter services than on long-distance routes. In 2013–2014, approximately 41% of TOC revenues came from interavailable journeys made on London and South East/regional routes in comparison with 32%

²⁴⁷ ORR retail market review, emerging findings, June 2015.

²⁴⁸ ORCATS (Operational Research Computerised Allocation of Tickets to Services) is a computer system used on passenger railways in Great Britain. It is used for revenue sharing on interavailable tickets between TOCs when a ticket or journey involves trains operated by multiple TOCs. It approximates the split between train operators based on factors such as journey time.

²⁴⁹ As noted in paragraph 2.113, interavailable fares are set by the lead operator (ie the operator with the greatest commercial interest on a certain route) and must be observed by all TOCs selling tickets for that journey or operating a service on some or all of the route.

from interavailable journeys made on long-distance services.²⁵⁰ In the case of OAOs, the percentage of passengers' journeys using dedicated and non-interavailable tickets is higher, eg over 60% of all Grand Central journeys in 2013–2014.²⁵¹ In this regard, ORR noted in the emerging findings of its retail market review that while passengers benefit from the flexibility provided by interavailable fares, passenger take-up of this type of fare is at least 10% lower for longer-distance, intercity travel and that there may therefore be merit in relaxing the obligations on TOCs to create and sell interavailable fares on all routes.²⁵²

- 'Mobile' and 'smart ticketing' solutions could help to tackle the problem of allocating revenue from interavailable tickets as they would increase the incentives on TOCs to compete for passengers as their revenues would directly reflect passengers carried, allowing for a closer link between actual passengers and revenue than is currently possible under the ORCATS mechanism.²⁵³
- In order to address the concerns that interavailability limits the ability of train operators to compete on price, passengers could be offered greater choice on interavailable tickets. For example, a discount could be given if they buy non-interavailable tickets and passengers could pay to 'upgrade' to non-interavailable season tickets when they require more flexibility (a system that would be much easier to administer in an environment of 'smart ticketing').

'Sunk costs'

6.106 It has been suggested to us that there is a risk that on-rail competition, in driving down prices, would threaten the financial viability and sustainability of market participants because of the sunk costs involved in making a franchise bid.

6.107 The concern is that this would happen because once the core franchise payment schedule had been agreed at the start of the franchise, this would effectively constitute a 'sunk cost' which firms could no longer control and

²⁵⁰ The analysis is based on TOCs' revenues from all ticket sales. The level of interavailability is measured as a percentage of TOC revenues earned from passenger journeys made on routes defined as interavailable. Routes were identified as interavailable if at least 5% of total route revenue is allocated to more than one TOC.

²⁵¹ AECOM analysis.

²⁵² In particular, relaxing the obligation to create interavailable fares could mitigate the need for such extensive TOC collaboration and provide increased incentives for innovation to be delivered through competition and normal response to market forces – ORR retail market review, emerging findings, June 2015, paragraph 5.15.

²⁵³ Smart ticketing, such as Transport for London's Oyster card, allows individual passenger journeys to be recorded and different charges levied according to origin, destination and time of day or season.

would, therefore, not take into account in their pricing behaviour. If pure price competition followed, prices could be driven down as low as the marginal cost of providing a service.²⁵⁴ This would mean that ticket prices would only cover, for example, the energy involved in running the service, costs of staffing the service (to the extent that staff contracts could be reduced if the service were not run) and the variable track access fees. As the companies in this condition would effectively be loss-making, sooner or later, one company would be likely to exit the market. What would happen at this point is unclear: if another company could buy the franchise rights from the exiting company, then perhaps the cycle would begin again; if it could not, then the remaining company could act as a monopolist for the remainder of the franchise, ie it could then raise prices and receive considerable profits.

6.108 There are a number of factors that mitigate this concern:

- First, we note that the cost-reflective track access charges that we propose would be paid by both new entrants and incumbents (set out in further detail in the next chapter) would constitute a ‘price floor’ for all operators.
- Second, if it were the case that a new operator could enter the market by taking over the track access rights of a failing operator, then ex ante there would be no incentive for any firms to drive down prices drastically to the point at which they force a competitor to exit. This is due to the fact that the incumbent would know that a new competitor would enter against it and prevent it recouping its losses from the deep discounts used to force the exit of the original competitor by raising fares after the competitor’s exit. Even if a new competitor did not enter to replace the failed operator (or if there was a delay in it doing so), fare regulation may prevent the incumbent from recouping its losses from the price war, which would also act as a disincentive for the incumbent to start an unsustainable price war.
- Third, TOCs do not compete only on price but also on quality (see paragraphs 4.52 and 4.101). Moreover, some degree of product differentiation does in fact exist in the passenger rail market, eg high-speed/traditional services; ‘no frills’ solutions and services combined with bus tickets or car rental. This means that competition may not be close enough to push prices down to marginal costs. Even when competing strongly with each other operators could retain some margins and be able to pay off their fixed costs.

²⁵⁴ This would form the level below which prices could not fall as if they were to fall any lower, the operator would be better off not running the service.

- Fourth, capacity constraints exist in the rail markets in Great Britain; prices would therefore be prevented from falling to marginal cost as, even if a price war started, as prices fell and more passengers were attracted, trains would become full and the price war would stop as operators would not be able to attract any more passengers by lowering prices. As prices would be above marginal costs, there would still be some revenue to cover any fixed costs which existed.
- Fifth, in so far as the competing services operate at times where they have a limited effect on the franchisees' revenue, that will commensurately limit the effect on premiums paid.
- Finally, we consider that the experience of on-rail competition in other European countries has not produced this effect. The only similar occasion we note is an example of intense price competition among three TOCs in the Czech Republic, described in paragraphs 4.100 and 6.112. However, we note that all operators involved were OAOs which did not have fixed costs from franchise payments, and it is alleged by the smaller players that the low prices are also the result of predatory behaviour by the incumbent. In this case, competition law could be used as a tool to tackle the competitive problem.

Possible obstacles identified from experience gained in other European countries

6.109 As described in Chapter 4 (see paragraphs 4.74 to 4.117), on-rail competition has developed in a number of other European countries, ie to a limited extent in Germany and, more extensively, in Italy, Austria, the Czech Republic and Sweden.

6.110 Evidence in these countries shows that competition 'in' the market has yielded benefits for passengers in terms of exerting a downward pressure on price, improving service quality and encouraging innovation, while also positively affecting demand and market growth.

6.111 However, there have also been some pitfalls, such as uncertainty on business sustainability and concerns about the impact of competition on public funds.

Sustainability

6.112 As mentioned previously, in the Czech Republic, open access competition on the completely liberalised Prague–Ostrava route put intense downward pressure on prices and led to concerns regarding the long-term sustainability

of three operators competing on the same route.²⁵⁵ (However, in contrast to Great Britain, all three operators are OAOs and the incumbent undertaking the predatory behaviour is vertically integrated.) The competent public authority is considering a number of policy solutions, including establishing a licensing regime accompanied by licence obligations and/or defining basic essential services to be awarded through a competitive tendering process.²⁵⁶ One of the Czech Republic's OAOs is not yet profitable, although it had a positive EBITDA in 2014.²⁵⁷

- 6.113 In Sweden, the incumbent terminated its Gothenburg–Malmö service in 2012 after an OAO introduced high-frequency services. However, after two years, the incumbent re-entered the high-speed services market, matching the OAO on-board service quality (eg with free wi-fi).
- 6.114 In Italy, the OAO experienced financial difficulties during its start-up period,²⁵⁸ as did the Austrian OAO. The latter achieved low unit revenues during the initial period of its operation as there was intense price competition with the incumbent but the OAO has now managed to cover operational costs plus a small margin.
- 6.115 In conclusion, in the European examples, where few entry restrictions and no PSO obligations were in place, open access competition has resulted in a downward pressure on prices in a number of European countries. This has benefited passengers but it has also created concerns about the longer-term viability of some operators. However, it is important to note that, in these countries, OAOs commenced their activities only quite recently (in 2012) and it is not unusual for new entrants in capital-intensive sectors (such as railways, telecoms or energy) to experience losses during their start-up period.
- 6.116 Moreover, in the countries examined, the market entry costs of OAOs have been, more or less, directly influenced by the presence of vertically integrated incumbent holding companies (see paragraphs 4.110 to 4.112).

²⁵⁵ It should be noted that the Czech Republic OAOs claimed that the incumbent operator abused its dominant position to undercut its competitors by adopting a predatory pricing strategy. The Czech Republic competition authority is currently investigating the allegation.

²⁵⁶ These arrangements for defining minimum/essential services already exist in Great Britain.

²⁵⁷ Leo Express, NTV and Westbahn financial reports for 2014.

²⁵⁸ Losses amounted to €77.6 million in 2013 and €55 million in 2014.

Impact on public funds

- 6.117 In most European countries where open access competition has developed, there is a clear separation between commercial and PSO services and competition 'in' the market takes place exclusively on purely commercial routes.²⁵⁹
- 6.118 Therefore, in these cases, the development of open access competition has only had an indirect impact on PSOs and government funds, which cannot be easily assessed. Public subsidies and funds allocated to rail passenger services directly depend on ex ante policy decisions in individual countries, as to which public services to provide and how these should be financed.
- 6.119 For example, in some European countries (eg in Germany and Italy), a policy choice has been made to sustain the development and complete liberalisation of high-speed services with public funds (implying lower service fares) due to the overall positive impact on the economy this is likely to have. In Italy, the scope of PSOs has been redefined at regional and intercity level for services other than high-speed so that, effectively, the requirement to stop at certain stations has been eliminated and some prices have increased.²⁶⁰
- 6.120 In Sweden, also, liberalisation and competition have been expressly supported. In order to sustain a greater level of competition in the market, commercial services can be modified by commercial operators agreeing with regional public authorities to run certain PSOs, applying a licensing system of 'voluntary obligations'.
- 6.121 In the Czech Republic, the impact of open access competition on the revenue of the PSO operator – and, therefore, on the subsidies and public funds required to support its operation – appears to be low. Specifically, despite the high market share of OAOs operating on the route, competition has not resulted in any significant demand abstraction from the incumbent operator due to the significant generation of new demand (see paragraph 4.107).

²⁵⁹ This is due to (a) the clear conceptual identification of PSOs (which quite often relate to technological/ economic dimensions, ie non-high-speed services and/or commercially unprofitable services); (b) the much more limited scope of PSOs, especially for long-distance services; and (c) the fact that OAOs tend not to enter into the market and compete on those services for which the incumbent receives subsidies, although in most cases open access entry is neither restricted nor subject to an economic impact assessment. In Italy, open access entry is subject to an economic impact assessment, similar to the case in Great Britain. However, in 2012, PSOs in Italy were defined for 54% of the market (21% for long-distance services), while in Great Britain, PSOs are bundled together with profitable services in franchises which cover 99% of the market.

²⁶⁰ However, the newly established Italian regulator is considering introducing a PSO/universal service obligation levy on commercial services to compensate for this.

7. Conclusions: options for reform

- 7.1 We have considered the options available to increase competition in the passenger rail sector, taking account of the factual situation and the issues identified in the analysis set out in previous chapters. We have produced the following four lead options:
- Option 1: existing market structure, but significantly increased open access operations.
 - Option 2: two franchisees for each franchise.
 - Option 3: more overlapping franchises.
 - Option 4: licensing multiple operators, subject to conditions (including public service obligations).
- 7.2 We also give consideration to a number of sub-options within these options to give a flavour of how they might be implemented and the different outcomes they could lead to.
- 7.3 The baseline against which we primarily compare our proposals is a continuation of the current system (with only minor changes) under which franchises are awarded in the framework adopted following the recommendations of the Brown Review (see Chapter 2).
- 7.4 In developing these options, we have paid particular attention to addressing the obstacles to competition outlined in Chapter 6. These options have been designed to achieve the maximum benefits of competition while mitigating the potential negative effects.
- 7.5 In particular, our options seek to ensure that any shortfall in government revenue through a reduction in franchise bid premiums would be largely recouped through a combination of requiring new entrants:
- to bear a proportionate share of network costs, for example through making a contribution to fixed track access charges (from which OAOs are currently exempt), particularly where they are making use of parts of the network where there is strong demand or where their use directly or indirectly leads to the need for more investment. ORR's review of the structure of access charges paid to Network Rail, in preparation for the next five-year 'control period' for access charges which starts in 2019, is therefore pivotal to the options for reform under consideration;

- to contribute to the cost of unprofitable but socially valuable services, eg by paying a levy to subsidise such services or bearing obligations to provide some of these services themselves (which they may be able to operate more efficiently than the incumbent franchisee).
- 7.6 We have also considered the proposals in the paper on on-rail competition prepared for ORR by Martin Cave and Janet Wright in 2010,²⁶¹ the proposals in the 2011 and 2013 ORR consultations, and those in the current European experience, described in Chapter 4. We have taken into account how they could be implemented, and in doing so have assessed their technical, economic and commercial feasibility.
- 7.7 In the discussion of each of the options below, we have assessed the market outcomes which we consider would result from the incentives contained within them. In order to apply this economic reasoning, we have made some broad assumptions in our analysis.²⁶²
- 7.8 In analysing the options below, we consider the results of expanding on-rail competition on those parts of the network in Great Britain where they are likely to deliver the greatest benefits. These appear to be the three main commercial intercity routes: the East Coast main line, the West Coast main line and the ‘Great Western’ route linking London with South West England and South Wales. We consider these routes to have the most potential for greater on-rail competition because they are the most financially viable, they have the least complexity in terms of interconnections and service types, and because passengers using long-distance services tend to be more willing to book in advance rather than primarily valuing a ‘turn-up-and-go’ service, creating the potential for operators to compete on price by introducing dedicated fares. However, the framework could be applied nationally to allow for open access growth elsewhere (with the Midland Mainline intercity route in

²⁶¹ Cave, M and Wright, J (2010), *Options for increasing competition in the Great Britain rail market: on-rail competition on the passenger rail market and contestability in rail infrastructure investment – Final report to the Office of Rail Regulation*.

²⁶² We have assumed that when there is competition, companies compete primarily on the price they charge, rather than varying the number of trains they run, and that when competition occurs, companies will end up charging prices that are more or less equal to their costs, plus a reasonable rate of return (for the reason that, otherwise, their rivals would undercut them on price and take their customers). We assume that the potential for trains to be full at various times does not affect this too much, and that passengers are generally not willing to pay a significant premium to travel with one company over another. In economic terms, we are abstracting to Bertrand (ie price) competition, no capacity constraints, and homogeneous products. This reflects our understanding of the operation of the current passenger rail sector. It also uses assumptions very similar to those in the modelling in the MVA report for the 2011 ORR consultation, although MVA models capacity constraints on the network. Capacity constraints lead to higher prices as competing firms stop undercutting each other on prices once prices have fallen so low that trains are full. This has the benefit of protecting some franchise revenue, but also lowers the total economic benefits felt by consumers. As we are considering options in medium to long term, with less binding capacity constraints, we consider that paying less attention to this issue is reasonable.

particular being another candidate if it were isolated from the wider East Midlands franchise).

- 7.9 This focus on the potential for competition on long-distance intercity routes is also in line with the practice in other European countries where on-rail competition exists, as described in paragraphs 4.74 to 4.98.
- 7.10 We note that there are many difficulties in introducing on-rail competition on commuter routes – for example (a) capacity constraints on routes to London and other major urban centres and (b) the particular desire of commuters to take the first available train, which implies greater dependence on inter-available tickets and hence less price competition. We also note that the new government has stated that it will not permit operators to raise regulated fares (the majority of which cover commuter routes) above the rate of retail price inflation over the next five years.
- 7.11 To protect against risk for existing and imminent franchisees, we do not envisage any of these options coming into effect until after the end of the current rail franchise terms (or, where new franchise tenders are imminent, after the terms of those franchises about to be tendered), which would mean 2023 at the earliest. We recognise that network capacity constraints are most likely to relax, as a result of Network Rail’s longer-term enhancements and electronic on-board signalling coming on-stream, after 2029.
- 7.12 The options considered below would also generate a greater number of opportunities for transport operators to enter the rail sector than under the current system, helping transport operators to achieve a balanced portfolio of activities.

Option 1 – existing market structure, but significantly increased open access operations

- 7.13 In this option, the existing system would be adapted to allow a significantly increased role for open access alongside franchisees. In return for greater access to the network, OAOs would be required to pay an appropriate share of the costs of network infrastructure and to pay proportionately towards unprofitable but socially valuable services by way of universal service levy to avoid free-riding.
- 7.14 This would allow the current franchising framework to continue broadly as it operates today, but support a progressive growth of open access, with OAOs making a similar contribution to network costs (following reforms to access charges) and the funding of loss-making services as incumbent franchise

operators. It would also provide the government with flexibility to adjust the balance between franchisees and OAOs in a more revenue-neutral way.

- 7.15 In view of current capacity constraints, an expanded role for open access could be achieved using new capacity which is expected to come online (see Chapter 3) and/or through reducing the proportion of services that are allocated to franchises specified by the DfT.
- 7.16 In order for OAOs to retain full freedom to adapt their operations on a commercial basis, in this option we envisage that all or the vast majority of unprofitable but socially valuable services in a franchise area would be undertaken by the franchise operator alone. This would include the unprofitable but socially valuable aspects described in paragraphs 6.58 to 6.62 (ie essentially unprofitable destinations, unprofitable stops, and unprofitable stopping times).
- 7.17 It may be more efficient for the OAOs to undertake some of the unprofitable but socially valuable services instead of the franchisee, for example adding an extra stop to one of its services when there are no franchisee-operated services passing at a particular time, or running an extra service late at night or early in the morning when balancing its rolling stock location in preparation for the next day.
- 7.18 Moreover, OAOs might be able to operate some of the unprofitable but socially valuable services currently provided by franchisees and subsidised by the government in a commercially viable way. This would generate cost savings for the government and would, therefore, go some way to compensate for revenue abstraction from franchisees.
- 7.19 In this scenario, unprofitable but socially valuable services could be allocated to an OAO by a regulatory body. Alternatively, the franchisee could sell these obligations to run unprofitable but socially valuable services in a secondary market for such services.
- 7.20 This option would be implemented in conjunction with changes to the access charging structure (described in paragraphs 7.102 to 7.105) so that OAOs pay charges which are reflective of the fixed and variable costs of the infrastructure they use in return for greater access to the network. In this framework, OAOs and franchisees would face broadly similar risks and broadly similar charges (see paragraphs 6.86 to 6.91).
- 7.21 A mechanism would also need to be established for allocating rights to the OAOs or operators within a franchise area in the likely event that more than one company wanted to operate those rights, as discussed in paragraph 6.57 above. This could be the same mechanism used for determining the value of

rights for different slots, which should be reflected in access charges. An auction mechanism could be used or an administrative process similar to that used by the Swedish system operator.²⁶³

- 7.22 Funding for unprofitable but socially valuable services through cross-subsidisation between franchises (ie from monopoly rents extracted via franchise premiums) would be eroded by on-rail competition. Even after taking into account higher access charges, which we consider above in paragraphs 6.86 to 6.91, a levy may be required to fund the provision of unprofitable but socially valuable services in a way that minimises any funding shortfall to the government.
- 7.23 We consider that this funding could come from a universal service levy imposed on OAOs with long-term access rights and franchisees which operate profitable services.²⁶⁴ The contribution should seek to net off the potential funding shortfall to the government after the efficiency gains and savings resulting from OAOs operating previously subsidised unprofitable but socially valuable services in a commercially viable way are taken into account.
- 7.24 We have not reached a firm view on the best form a levy would take. Obvious options are a per-passenger-mile levy, a per-train, or a per-carriage levy. The purpose of the levy is to ensure that OAOs pay proportionately towards the provision of unprofitable but socially valuable services.
- 7.25 A concern here is that OAOs may struggle to be financially viable if paying a levy. We consider that it may be sensible for the levy they pay to increase over time, so that they were not paying the full rate until they have had a reasonable period within which to establish a viable commercial operation. This reflects the amount of time we understand it took OAOs on the East Coast main line to establish themselves and to be able to run profitable businesses. The same principle could potentially be applied to open access charges applied to OAOs to cover the fixed costs of the network.
- 7.26 One question on the use of a levy is how its impact would be passed through to passengers on open access services. Under conditions where operators faced a similar level of competitive pressure on all of their services we would expect the levy to be passed through to all passengers evenly. Where this is

²⁶³ We note that while Article 38 of Directive 2012/34/EU specifically prohibits the trading of infrastructure between applicants for that capacity, it does not prohibit the auctioning of a train path (although the process would need to be very carefully considered to ensure compliance with the Directive).

²⁶⁴ Article 12 of Directive 2012/34/EU allows the authority responsible for passenger rail transport in an EU member state to impose a levy on rail operators providing passenger services to contribute to the financing of public service obligations laid down in public service contracts that have been awarded according to European law. However, the UK government chose not to transpose Article 12 into UK law in 2009 (when it formed part of a 2007 Directive).

not the case, it is likely the levy may be passed to particular customers, eg those travelling during peak hours, who have particularly inelastic demand. However, in the light of evidence on the benefits of open access, including efficiencies, we would expect the overall effect of on-rail competition to remain positive.

Advantages

- 7.27 **Competitive pressure on prices:** competition would lower or remove the market power of franchise holders. Passengers would benefit from lower fares, and so volumes of travel would increase. This effect is demonstrated by the evidence of existing on-rail competition from OAOs, including in other European countries such as Austria, Italy and Sweden, as described in Chapter 4.
- 7.28 **Efficiencies:** OAO presence on these flows would lead to considerable efficiencies as they provide services at a lower cost by implementing their business models, described in Chapter 5. The pressure on franchisees to match fares when they compete with the OAOs would also incentivise them to lower their costs and achieve efficiencies.
- 7.29 **Improved service quality:** evidence to date, including from Great Britain and other European countries, suggests that increased competition from OAOs would also encourage franchisees to provide higher quality services. For example, we note that franchisees have introduced innovations such as wi-fi following the introduction by OAOs.
- 7.30 **Security of supply:** there may also be a benefit to security of supply from this system compared with a system entirely based on open access, such as option 4. This is because the ‘anchor’ franchisee could be insulated from risk by the terms in the franchise agreement linked to GDP and regional GDP, as in the franchises following the Brown Review, while the OAO could operate without these. If the OAO were to face insolvency, core services would continue to be run by the franchisee, which may be in a position to expand its operations until a new OAO was able to enter the market.
- 7.31 **Potential for significant innovation:** over time, dynamic competition resulting from the increased role of open access could incentivise transformational change within the industry both in relation to passenger services and more efficient operating models.
- 7.32 **Implementation:** we consider that this option is most likely to deliver benefits on the three main intercity routes in Great Britain – namely the East and West Coast main lines, and the ‘Great Western’ route linking London with South

West England and South Wales – although the framework could be applied nationally to allow for open access growth elsewhere (with the Midland Mainline intercity route in particular being another candidate if it were isolated from the wider East Midlands franchise). To protect against risk for existing franchisees, the proposed reform would be introduced only after the expiry of existing franchise terms. There would also be the possibility of a ‘pilot’ scheme in a particular franchise.

Disadvantages

- 7.33 **Impact on franchise premiums:** the amount bidders would be prepared to offer as franchise premiums may be reduced, as competition would mean they no longer have market power with which to extract rents to pass on as franchise premiums to government. However, reforming access charges would increase government revenue, as would higher passenger numbers. Efficiencies would also go some way to addressing this issue. This effect may be greater if franchises required additional funding to run unprofitable but socially valuable services within their franchises while OAOs operated only profitable services. For example, if the franchisee was obliged to run a late-night, loss-making train, it could not cross-subsidise this through charging above-cost prices on a profitable train, as it would under the current system, because if it competed on the flow with an OAO, the OAO could undercut it and take its customers. This would, however, be resolved by the universal service levy charged to OAOs.
- 7.34 **Risk and uncertainty arising from the presence of open access:** there would be a degree of risk and uncertainty attached to bids for ‘anchor’ franchises in comparison with the current system, and in comparison with options 2 and 3, which only involve franchise-on-franchise competition. This is because it may be difficult for franchise operators to know in advance the services that would be provided by OAOs within their franchise zones.
- 7.35 **Loss of economies of scale and density:** there would be a loss of efficiencies of scale and density as services within a franchise area were carried out by more than one operator. As described in Chapter 5 on efficiencies, the elasticity of cost with respect to density is estimated to be around 0.8.
- 7.36 **Impact of universal service levy on prices:** raising funding from a universal service levy may have an effect on rail prices. As mentioned in paragraph 7.26 above, a levy may be passed on to passengers disproportionately, in a pattern that would not differ greatly to the monopoly prices previously charged. Moreover, we would expect that this effect would be outweighed by the benefits of on-rail competition.

- 7.37 **Costs of coordinating a greater number of operators:** maintaining punctuality and other KPIs could be a greater challenge with multiple operators on the route. This may require greater funding for Network Rail's short-term system operator function of managing traffic on the network.
- 7.38 **Costs arising from mechanism to allocate track access rights:** There would be administrative costs associated with operating whichever mechanism was chosen to allocate access rights and also costs for operators in engaging with these mechanisms. The administrative costs could be added to access charges and shared between operators.

Option 2 – two franchisees for each franchise

- 7.39 This option would see suitable franchises tendered such that there would be two operators for each franchise. This would ensure on-rail competition between operating companies on all, or the majority of, flows.
- 7.40 There are a number of ways this could be organised:
- (a) with two franchises equal in terms of frequencies of services, and number of unprofitable but socially valuable routes;
 - (b) with asymmetric franchises, for example with a 60:40% split in terms of service frequencies and unprofitable but socially valuable routes;
 - (c) With one 'anchor franchisee' responsible for the vast majority of unprofitable but socially valuable services and, most likely, some degree of profitable services, and one other franchisee responsible for the remainder of services, which would all be profitable.
- 7.41 The choice over which of these is the best specification within this option is based on striking the right balance between the benefits of competition and the risk of operators engaging in tacit collusion to set fares.
- 7.42 As set out in Chapter 6, we do not consider the risk of competition driving down prices to an extent that financial viability is threatened to be high in the rail sector.
- 7.43 We consider that under option 2(a), above, with equal split franchises, it is likely that if competition were very close, neither firm would offer a premium on a profitable route, and that prices would therefore fall to a competitive level of average total cost. The firms would cover their costs but would not make significant profits.

7.44 As a result, option 2(a) would see a considerable reduction in prices and an increase in passenger numbers, but may also see a considerable increase in subsidy requirements, assuming that the firms competed strongly against each other. Higher track access charges and greater efficiency may, however, mitigate this effect.

7.45 A second concern is that the firms engage in tacit collusion. There are a number of criteria that competition economists consider to facilitate tacit collusion. These would be met in this scenario as the services would be highly symmetrical, prices would be observable and contact between operators may also exist in multiple markets (eg if the system were applied to multiple franchise zones and the same operators were present in different zones). These considerations can be outlined using an indicative example:

- (a) If there were two services operated by different companies leaving one after another on the same flow, eg London–York, both operators would have a good idea of the cost of running that service, and the demand from passengers at that time. Both operators would therefore know an ideal ‘monopoly’ price to set, from which they would both benefit as long as they both charged it.
- (b) If one operator were to set a noticeably lower price and was able to attract more passengers and, therefore, make a higher profit at the expense of the other operator, which lost customers, the other franchisee could be fairly certain that the other operator was deliberately undercutting it. Knowing that any attempts to undercut would be detected, each operator would be unlikely to take such action in order to avoid a price war.
- (c) This can be contrasted with a situation with two operators running more dissimilar services, eg one directly to York and another to York but continuing on to another station on track which had not been electrified and so requiring the second operator to use diesel-powered rolling stock. If the second operator lowered its price, it would be harder for the first operator to be sure that this was a deliberate attempt to win its customers rather than a change in diesel prices or some other cost associated with diesel rolling stock which it did not face. The first operator might suspect that it had been undercut and may, therefore, respond to the change in prices, sparking a price war.
- (d) It is generally understood, therefore, that two dissimilar firms are less likely to be able to successfully tacitly collude, and so are less likely to attempt to do so.

- 7.46 Option 2(b) with asymmetric franchises – for example, a 60:40% split between services, with roughly equal proportions of profitable and unprofitable but socially valuable services – would seek to address the problem of potential tacit collusion by implementing a degree of asymmetry between the operators. Asymmetric operators in this instance would be less likely to collude because they cannot infer as easily from the market conditions they face whether their competitor is changing its price because it has reneged on the higher price which benefits them both, and is trying to win its customers, or because they are being affected by cost shocks which the company does not understand because it is dissimilar. The company which sees another company lower its price is in this situation more likely to respond by lowering its price and so sparking a price war, down to competitive prices.
- 7.47 However, another characteristic of a 60:40% split is that it may also limit the extent of competition faced by the larger operator. This would, therefore, protect some of the franchise premium-producing monopoly revenues.
- 7.48 Option 2(c), having an ‘anchor franchisee’ responsible for the vast majority of obligations to run unprofitable but socially valuable services and some other services which together would make a feasible operation, and a second franchisee alongside it running profitable services, would seek to maintain a degree of competition between asymmetric operators while providing unprofitable but socially valuable services in a coherent manner.
- 7.49 Of these three sub-options, it appears that option 2(c), the anchor franchisee running the unprofitable but socially valuable services, with another franchisee competing alongside it but with fewer or none of these responsibilities, is likely to be the best of these sub-options. This is because it would guarantee a degree of competition on a large number of flows but this would be between franchisees that were quite different from each other in terms of their operations and cost-drivers and so would be less likely to tacitly collude on price.

Advantages

- 7.50 **Competitive pressure on prices:** direct franchise-on-franchise competition resulting from this family of options would be likely to bring about lower prices and higher passenger numbers.
- 7.51 **Efficiencies:** it would also spur innovation and efficiency, as discussed in the consideration of franchise overlaps above. The closeness of the competitors would be likely to affect the scale of these benefits; the closer they are the stronger the competition (subject to the risks of collusion mentioned above).

- 7.52 **Improved service quality:** competition would encourage franchisees to improve their service quality.
- 7.53 **Risk and uncertainty arising from presence of OAOs minimised:** competition between franchisees may benefit from having a lower degree of risk and uncertainty associated with it, in comparison with competition from OAOs. This may lead to higher franchise premiums or lower subsidy requirements from franchise operators (when compared with the situation where there is greater competition from OAOs), as they would need to factor in less of a risk premium.

Disadvantages

- 7.54 **Impact on franchise premiums:** increased competition would lead to a reduction in franchise premiums as firms anticipated that price competition would lower prices and their ability to extract monopoly rents.
- 7.55 **Loss of economies of scale and density:** dividing franchise services further may lead to losses of economies of scale and density.
- 7.56 **Costs of coordinating a greater number of operators:** there could also be impacts on punctuality and other KPIs as coordination on the network became more challenging, although the extent of this risk is unclear.
- 7.57 **Potential for innovation and efficiencies:** franchise-on-franchise competition is unlikely to be as beneficial as franchise versus OAO competition (option 1) or full OAO competition (option 4), as franchises may have less flexibility to provide innovative services or lower their costs. This disparity increases with the degree of specification in franchise agreements.

Option 3 – more overlapping franchises

- 7.58 A franchise overlap occurs where two franchisees provide some, but often not all, of the same services along a route or in their area of operation. Current examples are the overlap between the Great Northern and Virgin East Coast franchises on London–Peterborough flows, and between Great Northern and Abellio Greater Anglia on London–Cambridge flows, described in more detail in Appendix C.
- 7.59 The SRA, the body responsible for franchising from 2001 to 2006, consciously reduced the number of franchise overlaps in the Great Britain passenger rail

sector.²⁶⁵ The stated rationale for this was primarily to ensure there was only one operator at each London terminal, with the intention of improving coordination of traffic and so improving punctuality and other KPIs.²⁶⁶

- 7.60 This option would reverse the SRA's policies by redesigning the franchise map to encourage more overlapping franchises. It would therefore create more flows on which there would be competition between franchised operators.
- 7.61 Competition between franchised operators may reduce the franchise premiums attached to bids, although we have heard evidence that franchisees including London Midland and Chiltern Railways have generated value in a more competitive environment. The fact that the government would retain control over where and when competition takes place would reduce uncertainty for bidders.
- 7.62 Unprofitable but socially valuable services would be provided, as under the current system, by franchisees.
- 7.63 A policy of increased overlapping franchises would be relatively easy to implement, as it uses existing mechanisms. There would be no need to adapt the current rules around open access applications and the structure of charges within the industry could remain the same.
- 7.64 This option could also be implemented gradually, in a phased manner, so that as new franchises were tendered they would operate at first in their previous demarcations, but then would begin to operate services in areas they did not currently serve as franchises they overlapped with came up for retendering.
- 7.65 Decreased specification of franchises would be particularly beneficial under this option as it would allow the benefits of competition to extend beyond price competition to service provision that better reflected passenger demand and innovations that TOCs could deliver, including investment in new technology. Lower specification would also allow franchisees to better respond to the competitive incentives to reduce costs.

Advantages

- 7.66 **Competitive pressure on prices:** price competition on routes with franchise overlaps would lead to lower fares for passengers and an increase in traveller numbers.

²⁶⁵ They also reduced the number of franchises, from 26 to 19.

²⁶⁶ [SRA Strategic Plan 2002](#), p76.

- 7.67 **Efficiencies:** competition on price would in turn be likely to encourage franchisees to reduce their costs. Innovations and approaches developed on flows where there was competition might also be copied on to flows where there was not, which would have a positive effect on franchise premiums.
- 7.68 **Improved service quality:** there may be benefits to service quality from competition between franchisees on franchise overlaps. For example, London Midland and Chiltern Railways have responded to competition from other franchisees with new investment. The extent of changes to service quality from greater on-rail competition would depend on the flexibility available to franchisees within the specification of their individual franchises.
- 7.69 **Risk and uncertainty arising from the presence of open access:** a benefit to this option in comparison with option 1 would be the lower risk and uncertainty faced by franchisees when bidding for the new franchises. This is because the degree of competition would be much better understood in comparison with a system based primarily on competition from open access under which the nature of open access entry would be uncertain. This reduced uncertainty could limit the impact on franchise premiums or subsidy requirements of introducing competition by some degree, as franchisees would not need to price this uncertainty into their bids.
- 7.70 **Ability of government to control outcomes:** in comparison with options based on increased open access, this option would also allow considerable control for the franchise mapping authority over where and when competition took place, allowing:
- (a) the government's policy objectives to be more clearly achieved; and
 - (b) the design of overlaps to minimise negative effects on franchise premiums.
- 7.71 **Implementation:** This option would also be implementable under the current legal framework.

Disadvantages

- 7.72 **Impact on franchise premiums:** there would be, at a minimum, a short-term reduction in government revenue from franchise payments due to competition on overlapping flows lowering fares, although, as set out above, greater passenger numbers and efficiencies may offset this.
- 7.73 **Limits to potential efficiencies arising from franchise-on-franchise competition:** even when faced with competition, franchise operators are

unlikely to be as efficient or innovative as OAOs, for the reasons discussed in Chapter 5, which describes the key advantages of OAOs over franchisees.

- 7.74 **Challenge to franchising body of designing franchise map:** designing the franchise map in an optimal way would be a challenging task for the franchise mapping authority, likely to be the DfT. A reasonable approximation may be possible given the information it has accumulated from the experience of franchising to date,²⁶⁷ but it is unlikely that a central authority would be able to respond to market incentives as effectively as operators in the market.
- 7.75 **Loss of economies of scale and density:** dividing up the franchise map further could lead to a loss of economies of scale and density.
- 7.76 **Cost of coordinating a greater number of operators:** this option could pose a greater challenge to the system operator as it would have to compensate for reduced coordination and potential deterioration of performance in terms of punctuality and other KPIs. However, we were told by Network Rail that there may not be a significant impact on these factors from more franchise overlaps and there are a number of examples of franchisees operating overlapping services without any significant performance issues.
- 7.77 **Limits to market dynamics:** under this option, there would be no flexibility for operators to take over each other's services and responsibilities, which they might want to in circumstances where they were able to do so more effectively. In this option there is not a mechanism for this to occur, unlike what we have mentioned in the open access options, ie options 1 and 4.

Option 4 – licensing multiple operators, subject to conditions (including public service obligations)

- 7.78 A fourth option is to move from using a system of franchises to one using 'licences'. This would enable a move to operation of rail services by companies that were similar to OAOs, but subject to a licensing regime which would place some restrictions and obligations on their activities.
- 7.79 The purpose of these licences would be to ensure that the unprofitable but socially valuable services would still be run, but to do so in a less prescriptive manner, by using mechanisms which allowed market forces to decide which

²⁶⁷ We have been told that franchise operators have developed considerable knowledge over commercial factors including which routes are profitable and patterns of demand substitution, and that this information has been passed on to the DfT in the form of financial models accompanying franchise bids.

operators would be best placed to undertake them. Two examples of how this could be implemented are given below.

7.80 Licensing regimes are used in this way for a number of regulated industries such as energy, water and telecoms.

7.81 There are a number of ways these licences could be implemented. We have considered the following:

(a) **Administratively designed licences:** this approach would mandate that if an operator wanted to operate (profitable) services between destinations *A* and *B*, at time *C*, it would have to stop at intermediate stop *X*; would have to operate a service to nearby destination *Y*; and/or would have to run an additional service at time *D*. A planning body – perhaps the DfT, ORR or the system operator function of Network Rail – would need to design the licences so that they produced an acceptable level of service and a coherently connected timetable in a financially viable framework. Depending on changes to access charges, it may be that some of the licences would need to have a subsidy attached.

For example, licence conditions could require that any operator running a train between London and Manchester on the West Coast main line between 3pm and 4pm would have to stop at a smaller station like Stoke, and/or would have to run at least one train between London and Birmingham at 11pm. There could be a number of licence conditions like this, designed such that when all the profitable routes were being utilised, all the unprofitable but socially valuable services would also be undertaken. Crucially, however, it would not specify which, or how many, operators provided these services, unlike in a franchise system.

(b) **Trading-based allocation:** under this approach, alongside the licensed right to operate a service between *A* and *B*, there would be a condition that the operator must supply a certain ‘number’ of unprofitable but socially valuable services, but without specifying where these were. There would need to be a ‘list’ of unprofitable but socially valuable routes drawn up by a central body from which operators could choose the ones they wished to operate. A trading system or platform could be implemented so that franchisees could trade these obligations between themselves, or could subcontract them to third parties²⁶⁸ and, therefore, would not have to operate them themselves.

²⁶⁸ This approach has been used in energy policy to require energy companies to insulate certain numbers of homes and to build specified capacities of renewable energy generation.

An example of this approach would be a licence obligation which stated that any operator running a service between London and Manchester on the West Coast main line between 3pm and 4pm would need each week to run at least one unprofitable but socially valuable service, which it could choose from a list of flows that were considered to fall into this category by the planning body. Again the crucial difference from a franchise approach is that the operators could use these licence obligations to put together a set of services designed by themselves rather than by a planning body.

- 7.82 The funding arrangements under this family of options would need to be carefully considered. If the profitable rights were greater or equal in value to the unprofitable responsibilities, no subsidy would be needed; the unprofitable parts could be funded through cross-subsidy.
- 7.83 At a route level, in the areas where we are suggesting that more on-rail competition could deliver the greatest benefits, we consider it is likely that unprofitable but socially valuable services could be funded through licence obligations.
- 7.84 If this system were expanded to a wider number of routes, the balance of funding in the current system at a national level suggests that they mostly would require subsidy, as the operators would not be able to cover the costs of their infrastructure if charged cost-reflective access charges. Shortfalls in funding could, however, be made up by universal service levies on licensed operators, in a similar manner to the levy proposed for OAOs in option 1, or by increasing the number of unprofitable services that licensees were required to provide under option 4(b).
- 7.85 These two sub-options bear some similarities to other options we have considered. Option 4(a) would be similar to a franchising system except that the degree of specification would be much lower and the level at which licence obligations would be attached to access rights would be much more detailed. This option could be described as comprising 'bundles of mini franchises'. Option 4(b) bears considerable similarity to the OAO component of option 1, but with a number of obligations to run unprofitable but socially valuable services rather than a universal service levy, and without an 'anchor' franchise operating the PSO services.
- 7.86 Implementing options of this type would involve considerable changes to the current system. Under both sub-options, a central authority would have to identify and designate the unprofitable but socially valuable services. Under the administratively designed system, option 4(a), this authority would also have to attach the responsibilities to specific access rights.

- 7.87 Under both sub-options, a mechanism would also need to be established to allocate the scarce track access rights to different operators who wished to operate them. As mentioned in the discussion under option 1, this could be by way of an auction or an administrative process, as used in Sweden.
- 7.88 There would need to be rules in place to ensure that under either sub-option, there was competition present on all or the majority of flows. This would effectively mean preventing operators gaining control of collections of rights which would allow them to exercise market power and so raise prices.
- 7.89 For the trading-based option 4(b), a mechanism would also need to be designed to decide which operators were assigned responsibility for particular unprofitable but socially valuable routes, as these would differ in how expensive they were to provide or finance.

Advantages

- 7.90 **Competitive pressure on prices:** as long as there was competition on all flows, the same benefits as the other previous options, of lower prices and higher passenger volumes, would occur.
- 7.91 **Efficiencies:** allowing almost all of the services on relevant routes to be operated by OAOs, albeit ones operating under licence conditions, would allow significant benefits of competition to be experienced in terms of efficiencies. Indeed, as this option involves the greatest role for open access, it is likely these benefits would be most strongly felt under this option. Mechanisms for secondary trading of obligations to run unprofitable services would ensure these were done on an efficient basis as well.
- 7.92 **Improved service quality:** as above, high levels of OAO services would be likely to deliver considerable passenger service benefits.
- 7.93 **Potential for significant innovations:** as services would be delivered by OAOs operating under minimal licence conditions, there would be the potential for significant, potentially transformative, innovations to occur in the industry.
- 7.94 **Implementation:** the use of licence conditions to ensure unprofitable but socially valuable services are provided still requires considerable administrative involvement from planning authorities. We consider that the fact that access rights (train paths) are location-specific makes successfully implementing a licence-based approach more complex than in some other industries where it is currently used. For example, in energy, electricity can be fed into the grid at the wholesale level or supplied to consumers at the retail level almost anywhere, regardless of the location of the company.

Disadvantages

- 7.95 **Loss of economies of scale and density:** the division of routes between a greater number of operators would lead to a loss of economies of scale and density. This would have a countervailing effect against the efficiencies generated by greater competition.
- 7.96 **Costs of coordinating a greater number of operators:** with multiple operators on the networks there could be a challenge for the system operator in its short-term role of coordinating traffic in the network. Meeting this challenge would be likely to incur costs through the need for increased resources.
- 7.97 **Costs arising from mechanism to allocate track access rights:** if multiple operators wanted the same access rights, a mechanism would be needed to allocate them. This would come with associated costs for the body responsible for undertaking this task.

Consultation

- 7.98 The CMA has not, at this stage, concluded as to which option it will recommend.
- We would like to give interested parties an opportunity to consider this discussion document, and respond to it in writing to Rail@cma.gsi.gov.uk by no later than **Friday 16 October 2015**. We would also like to hold an industry wide round table in September.
 - In relation to the four proposed options for reform, we are particularly interested to hear the views of OAOs and other potential entrants into the market as to whether they would be able and willing to enter the market if they were required to bear a proportionate share of network costs and to contribute to the cost of unprofitable but socially valuable services.
 - The CMA will undertake further work in the light of responses to the consultation before deciding which option to recommend.
- 7.99 In addition, there are a number of more general ideas that could usefully be adopted alongside any of the options for greater on-rail competition coming into effect after 2023. We list these first and then consider them in more detail individually below. They are:
- reducing the level of detailed specification of franchise contracts (paragraphs 7.100 to 7.101);

- reforming the structure of access charges (paragraphs 7.102 to 7.105);
- improving incentives to facilitate better responsiveness of Network Rail in its 'system operator' function (paragraph 7.106); and
- encouraging the use of smart ticketing so that real passenger journeys are tracked within the system (paragraph 7.107).

Detailed specification of operators' obligations

7.100 We consider that the current degree of specification in some franchise agreements significantly restricts the ability of TOCs to manage their businesses commercially although, as set out in paragraph 2.33, the Rail Executive has made some welcome reforms to the system. We have been told by certain operators that they consider themselves to be increasingly taking the role of 'service delivery contractors' rather than commercial TOCs. This high degree of specification is likely to limit the ability of franchisees to tailor their services to passenger demand (eg by adjusting service frequencies and introducing innovations) and to lower costs. This, in turn, has an impact on customers' satisfaction, on prices and on passenger volumes. We were also told that service specification blunts operators' incentives to run additional trains. On franchises where specification is lower, we have seen evidence of operator-led innovation, service improvement and growth.

7.101 Reducing the level of specification would be particularly important alongside the implementation of options to increase competition in the market, as it would reinforce the ability of franchisees to respond to competitive pressures they faced, which would introduce dynamism into the competition between operators.

Reforming the structure of access charges

7.102 We consider that a number of benefits to passengers and taxpayers could be delivered by reforming the structure of access charges. Reforming the structure of access charges is also an important element of the wider options for reform set out below. We note that the rail industry is currently exploring a number of possible reforms to the structure of access charges and that, as noted above, ORR is conducting a review of the structure of access charges paid to Network Rail. For example:

- Introducing cost-reflective access charges would allow scarcity to be reflected in the allocation of train paths, increasing the efficiency of the track allocation process.

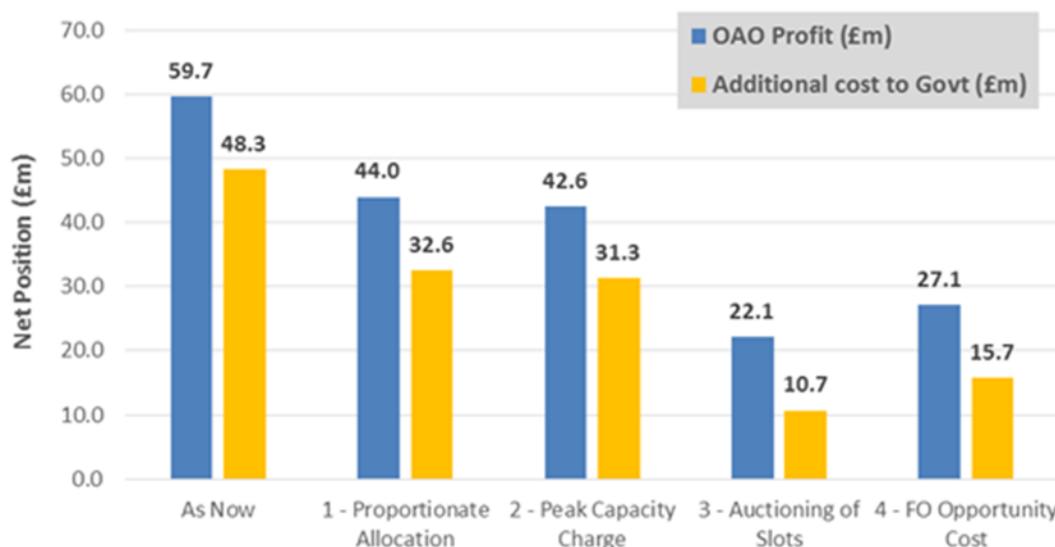
- Reforming the access charging structure would allow a more level playing field to be created in terms of the risks and charges that franchises and OAOs face (eg by requiring OAOs to pay charges that are reflective of the fixed and variable costs of the infrastructure that they use and reviewing the indemnity that franchisees enjoy against changes in track access charges during their franchises).
- The current network grant paid by government directly to Network Rail could be reformed, eg by re-routing network grant funding from government directly to TOCs in the form of higher (cost-reflective) access charges:
 - First, by ensuring that operators pay for the cost of the infrastructure that they use, operators would be incentivised to use the network as efficiently as possible.
 - Second, charges paid by operators would account for the majority of Network Rail’s funding, which would sharpen Network Rail’s incentives to respond to operators’ needs (eg by identifying capacity efficiently and realising potential cost savings demanded by operators).
 - Third, in addition to providing benefits to the system under the current regime, implementing cost-reflective access charges would also facilitate the implementation of other reforms to increase competition, such as the options outlined below. As described in paragraphs 6.92 and 6.108 above, at the present time, under the existing structure of access charges, if competition is introduced while the government continues to subsidise infrastructure through the network grant, prices will fall to average variable cost, much lower premiums will be paid, and government will be left to provide funding for this large shortfall through a higher network grant. If operators paid cost-reflective access charges this problem would be considerably mitigated as a new, larger revenue stream would be created.

In this regard, we note that the summer 2015 Budget announced that the government will change the way in which it channels public money through the industry, directing it through the TOCs, with the stated aim of encouraging Network Rail to focus firmly on the needs of train operators and, through them, passengers – encouraging customers of the railway to demand efficiency and improvements that matter to them and making the best use of scarce capacity on the rail network.²⁶⁹

²⁶⁹ HM Treasury (July 2015), [Summer Budget 2015](#), HC264, paragraph 1.255.

- This ability of reformed access charges to mitigate the impact on funding the network and PSO services is demonstrated in the MVA report for the 2011 ORR consultation. MVA modelled a number of different access charges when applied in conjunction with a significant expansion of open access operations on the East Coast main line. It showed that higher access charges could reduce the cost to government. One such scenario is demonstrated in Figure 16 below:²⁷⁰

Figure 16: Comparison of different FTAC charging options



Source: MVA report, scenario 2, comparison of different FTAC charging options.

7.103 In the MVA report, FTAC charging options 2, 3 and 4 involve access charges where operators go beyond paying the accounting costs of using the network, and pay something towards the opportunity cost of the access rights that they are using. This would mean they paid more for more valuable access rights such as those at peak times on high-demand routes. As can be seen from the chart above, this has the potential to lower the cost to government of increasing competition and losing revenue from premium payments.²⁷¹

7.104 We also consider that in this re-routing of funds via the TOCs, it should be made clear which funds are going to subsidise unprofitable services, and which are being used to pay for the infrastructure used by profitable services.

²⁷⁰ These access charges were: (i) 'As Now', with franchisees paying the current level of FTAC and OAOs not paying anything; (ii) 'Proportionate Allocation', where open access paid a share of the current FTAC; (iii) a 'Peak Capacity Charge', where OAOs paid a 50% higher charge for peak slots; (iv) an 'Auctioning of Slots' option where OAOs paid 90% of their profits as bids in auctions for slots; and finally (v) a 'FO Opportunity Cost' option where open access pays the difference between the revenue the franchisee receives if it faced competition and if it did not.

²⁷¹ Another scenario showed that the costs to government could actually be negative following the introduction of competition under some access charge systems, meaning that premiums would increase. However, this appeared to be driven largely by the choice of a scenario with an OAO running without completion on a large number of flows.

At present, as mentioned in Chapter 6, there is no clear distinction in the current financial flows.

7.105 The 2011 and 2013 ORR consultations considered that access charging has a key role to play in facilitating the introduction of greater on-rail competition within the Great Britain passenger rail services sector. We agree that reforming the structure of access charges is a key part of any reforms designed to achieve greater on-rail competition, as set out in our options for reform above.

Network Rail's incentives as system operator

7.106 We consider that the incentives placed on Network Rail in its role of 'system operator' should be sharpened in order to ensure that current infrastructure provides the highest feasible number of train paths for a given level of performance and cost.²⁷² As set out in Chapter 5, evidence shows that new entrants have greater incentives to put pressure on Network Rail to accommodate new entry and to control costs. In other contexts, the CAA has noted the positive impact that the liberalisation of airline services had on the 'upstream' management of airports, while downstream retail competition in Scottish water substantially increased the efficiency of the upstream wholesale water monopolist. ORR is currently reviewing Network Rail's role as a system operator and we will provide input to this analysis.

Smart ticketing

7.107 We consider that the implementation of smart ticketing systems, which monitor the actual trains that passengers take, would be beneficial as it would allow revenue to be more correctly apportioned to operators that attracted the most customers. The current ORCATS model allocates revenue from passengers travelling on interavailable tickets based on estimates of passenger demand and therefore blunts incentives for operators to attract more passengers.

²⁷² We recognise that there can be a trade-off between the number of services run on a route and punctuality and other KPIs, due to the decreased capacity in the system to respond to service interruptions such as broken-down trains and so on.

- We would now like to give interested parties an opportunity to consider this discussion document, and respond to it in writing to Rail@cma.gsi.gov.uk by no later than **Friday 16 October 2015**. We would also like to hold an industry-wide round table in September.
- We have not yet reached a view as to which option for increasing on-rail competition is to be preferred.
- We value responses generally including, but by no means limited to, those concerning the following issues:
 - The views of OAOs and other potential entrants into the market as to whether they would be able and willing to enter the market if they were required to bear a proportionate share of network infrastructure costs and to contribute to the cost of unprofitable but socially valuable services so as to make up for any shortfall in government revenue arising from the options for greater on-rail competition suggested in this discussion document, as described in paragraphs 6.86–6.91 and 7.22–7.26.
 - The operational impact of our options for increasing on-rail competition and the extent to which any operational barriers to implementing the options may be overcome through developments such as new technology and improved incentives for Network Rail to allocate capacity efficiently, including in particular as regards the points in paragraphs 6.40 to 6.57.
- The CMA will undertake further work in the light of responses to the consultation before deciding which option to recommend.