

Substitutability

Introduction

1. In this appendix, we consider the issue of rolling stock substitutability. This helps to inform us about the competitive pressures that ROSCOs face when leasing their rolling stock to a TOC. The starting point for our analysis is to review leases agreed at franchise re-let and consider what rolling stock was a viable alternative to the rolling stock that was leased by a TOC on a franchise. In this appendix we assess:
 - (a) the factors that determine whether alternative rolling stock is a substitute;
 - (b) our analysis of rolling stock substitutability;
 - (c) new rolling stock alternatives; and
 - (d) the DfT's analysis of rolling stock substitutability.

Factors affecting substitutability

2. We identified four factors that determine the extent to which alternative rolling stock could be substituted for rolling stock in use on a franchise:
 - (a) technical factors;
 - (b) operational factors;
 - (c) economic factors; and
 - (d) franchise specificity.

Technical factors

3. Technical factors are the technical requirements that rolling stock must have to operate on certain routes. We have identified a number of technical factors that affect the ability to use alternative types of rolling stock. Examples of technical factors include:
 - The infrastructure from which trains collect power. Only around 40 per cent of the rail network in Great Britain is electrified. The electrified routes use two systems: a 'third rail' alongside the track supplying 660/750v DC and an 'overhead line' above the track supplying 25kV AC. Diesel rolling stock can be used on electrified track, and a very limited amount of rolling stock is dual voltage and can be used on both electrified networks, but otherwise rolling stock cannot be switched between the power supply systems.¹
 - The size of the 'structure gauge'. This is the clear space around the railway corridor through which rolling stock can pass without striking tunnels, bridges,

¹Accompanying infrastructure such as storage depots, servicing facilities and refuelling facilities (for diesel trains) would also need to be available.

signals or station platforms.² In Great Britain the structure gauge is generally smaller than in other countries and it varies in different parts of the country. Multiple combinations of vehicle length, width and tapered ends³ have been developed in the range of modern rolling stock and a given rolling stock type does not necessarily have universal clearance to operate on all routes.⁴

- Axle weight limit. This is the maximum load that can be supported by the track and particularly any bridges and viaducts over which it passes. Certain locomotive-hauled rolling stock may exceed the axle weight limit on some rural routes, but such cases are relatively few.
- The signalling and communications systems which detect the location of trains and control their movement to deliver the timetable and ensure safety from collision. Most of the railways in Great Britain are fitted with trackside signals which operate on a relatively common basis. However, different systems are in use in certain parts of Great Britain.⁵

Operational factors

4. Operational factors are the rolling stock requirements that a TOC needs to meet the Service Level Commitment set out in the franchise ITT. Examples of operational factors that determine whether particular rolling stock is suited to operating on particular routes or services in a franchise include:
 - Capacity—the rolling stock should be capable of delivering the Service Level Commitment required by the DfT to avoid overcrowding on the one hand or excessive surplus capacity on the other. There may be limited flexibility in using different numbers of multiple units together⁶ or in adding or subtracting trailer vehicles in fixed formation sets.
 - Performance—maximum speed, acceleration, braking and station dwell time.⁷ Performance must be compatible with the overall pattern of traffic using the route (for example, on a busy route all traffic needs to operate at similar speeds in order to maximize the number of available train paths) and with the required Service Level Commitment (desired journey time etc).
 - Interior layout and door configuration—for example, a vehicle with few toilets, wide sets of doors at the one-third and two-thirds positions with extensive standing room and large vestibule areas would be well suited to inner suburban routes but not to long-distance high-speed intercity routes.
 - Safety requirements—for example, tunnel evacuation requirements might dictate that rolling stock is used with access doors on the end faces of the vehicles.

²The size of trains is also limited by compatibility with infrastructure on that part of the network, such as platform length.

³A vehicle will overhang the track on curves—at the middle of the vehicle on the inside of the curve and at the ends of the vehicle on the outside. Tapering the ends of the vehicle body slightly can allow a longer vehicle to operate within the same structure gauge by reducing the overhang at the ends.

⁴Network Rail's Route Acceptance Process exists to verify the clearance for each type of rolling stock on the proposed route. We discuss this in Appendix 4.2.

⁵These are in East Anglia, north and west Scotland and on the Cambrian Line, where there is Radio Electronic Token Block signalling; the Channel Tunnel Rail Link, which has a transmission voice machine (TVM 430) system that displays signals in the driver's cab; and where more restrictive signalling systems are in place on the infrastructure, such as Automatic Train Protection (ATP) fitted to parts of the Great Western Main Line and the Chiltern Line.

⁶For multiple unit operations, it is necessary for the units to be capable of coupling and operating together.

⁷Station dwell time is the time a train is stationary at a station stop and is driven by the ease of passenger boarding and alighting, the door operations and other response times.

Economic factors

5. Economic factors refer to the differences in the costs of leasing alternative rolling stock that mean a TOC does not find alternative rolling stock an attractive substitute for the incumbent rolling stock. Examples include:
 - If new rolling stock or alternative used rolling stock had significantly higher operating costs (eg fuel or track access charges), then these may affect the extent to which it can act as a constraint on rentals of the incumbent rolling stock.
 - If the size of an alternative fleet of rolling stock is smaller than the TOC's requirements, use of such rolling stock might require the TOC to use several fleets of different classes which could also increase costs.
 - If alternative rolling stock is on lease and that lease does not end at the same time as the lease of the incumbent fleet of rolling stock, the TOC may need to take a short-term lease on the incumbent rolling stock in order to switch to the rolling stock. Such a short-term lease, because it is often charged at a premium, may render the alternative rolling stock an uneconomic alternative, leading the TOC to consider it to be an unattractive substitute.⁸

Franchise specificity

6. A further limit on substitutability arises from the DfT's direct specification of rolling stock requirements in its franchise ITTs (for example, in cases where section 54 undertakings are in place and require specified rolling stock to be used on the franchise). The extent of the DfT's franchise ITT specificity is discussed in detail in Appendix 2.1.

Our analysis of rolling stock substitutability

7. We gathered information from the ROSCOs and the DfT on the extent to which alternative used rolling stock was considered to be substitutable for *each fleet* of rolling stock that has been leased at *each franchise re-let* since privatization.⁹
8. Our analysis of substitutability comprised two sources:
 - (a) the ROSCOs' interpretation of technical and operational substitutability; and
 - (b) information provided by the DfT on franchise bidders' rolling stock bids, which allowed us to identify those alternative fleets that bidders included in their bids and those alternative fleets that bidders told the DfT they also considered but did not include in bid proposals.
9. Our data set comprised the same 121 leases of MOLA rolling stock and 21 leases of post-MOLA rolling stock (a total of 142 leases)^{10,11} as described in Appendix 6.2. Our data set included multiple observations for each franchise re-let, because each franchise typically involved a number of different fleets of rolling stock.

⁸We discuss short-term leases in Appendix 4.2.

⁹A fleet is a group of rolling stock of the same class owned by a ROSCO that is leased to a particular franchisee. So, for example, if a TOC leases the same class from two ROSCOs on a franchise then this would comprise two fleets.

¹⁰Although some fleets may be spread over more than one lease, each lease only ever represents one class of rolling stock.

¹¹Our substitutability analysis (other than for technical and operational alternatives) only employs data for 137 leases rather than 142, as we had to exclude five leases that related to the London Rail Concession and Merseyrail, as these were not let by the DfT and so we did not have the relevant substitutability data in relation to those leases.

10. The data yielded four observations for each fleet that was leased at a given franchise re-let:
 - (a) Number of alternative used rolling stock classes considered by the ROSCOs to be technical alternatives—based on ‘technical factors’, as described in paragraph 3. This assessment of alternatives does not include a consideration of the restrictions imposed in the franchise ITT.
 - (b) Number of alternative used rolling stock classes considered by the ROSCOs to be both technical and operational alternatives—based on ‘technical factors’ and ‘operational factors’, as described in paragraphs 3 and 4. This assessment ignored direct restrictions on specific fleets of rolling stock imposed by the DfT in franchise ITTs but will be affected by the DfT’s Service Level Commitment requirements.
 - (c) Number of alternative fleets that franchise bidders stated that they considered in their franchise bids to the DfT. This included all alternative fleets considered by TOCs in putting together their bids to the DfT—both those fleets which were included in bids and those which bidders stated had been considered but not proposed to the DfT. The measure represents the number of alternative fleets collectively proposed by *all* bidders. It is not a cumulative measure; two alternative fleets may mean that three bidders proposed fleet B and two bidders proposed fleet C as an alternative to fleet A. This is measured as two alternatives, not five, because the competitive pressure provided by the alternative rolling stock arises in relation to each alternative fleet regardless of how many bidders have considered it.
 - (d) Number of alternative fleets included by TOCs in franchise bids to the DfT. This includes all alternative fleets bid by shortlisted TOCs. Like the measure above this represents the number of alternative fleets and is a collective (not cumulative) measure of alternative fleets across all bidders.
11. We considered all four measures in order to assess the importance of different factors in determining rolling stock substitutability. Our first two measures of the extent of alternatives (technical and operational) are expressed in terms of the number of rolling stock *classes*.¹² The second two measures (alternatives considered and bid) are expressed in terms of the number of alternative *fleets*.¹³ The latter two measures take into account intra-class substitutability as well as whether an alternative class of rolling stock is of sufficient fleet size.
12. In our analysis, the number of alternative classes or fleets does not include the rolling stock fleet that was leased, such that one alternative means that there was one alternative rolling stock class or fleet in addition to the fleet that was actually leased on the franchise.
13. We noted two important limitations with our measures:

¹²We used the number of classes in these two measures because we wanted to gain an understanding of the alternative rolling stock classes that could meet technical and operational requirements. We used the number of fleets for the latter two measures as we considered this was more informative when assessing alternatives in bids (which sometimes include within-class alternatives).

¹³Classes of rolling stock on a given franchise can be owned by more than one ROSCO and, if so, are counted as separate fleets. For example, our data set includes 13 observations for Class 158 DMUs. These have been used on seven different franchises. On three of these (East Midlands, Northern and Greater Western), Class 158s are owned by two different ROSCOs, so these are treated as separate fleets.

- (a) We only had comprehensive views from the ROSCOs on technical and operational substitutability.¹⁴ Although we considered that those views were likely to give a reasonable approximation of the extent of substitutability for different incumbent rolling stock fleets on individual franchises, we were mindful of the fact that this information was based on the ROSCOs' opinions and may not necessarily represent an independent and unbiased assessment of the possible alternatives as seen by the TOCs and the DfT.
- (b) In the case of the measure labelled 'alternatives considered', this was based on the information provided by bidders in franchise bid submissions to the DfT on which fleets they considered in putting together franchise bids but did not formally propose. This measure may under-represent the competitive constraints faced—for example, for some leases the ROSCO may have perceived a threat from alternative used rolling stock even though the TOC did not provide details of its consideration and rejection of the option in its franchise bid to the DfT. However, bidders appeared to explain many of the options they considered and so we did not think that this was a significant limitation in our use of this measure.
14. We noted that assessing alternative fleets considered and proposed in bids did not distinguish those cases where the same ROSCO that owned the leased fleet of rolling stock also owned some of the alternative rolling stock fleets. From a competition perspective, these alternative fleets were likely to have exerted a much lower (if any) competitive constraint on the incumbent fleet than alternative rolling stock owned by a competing ROSCO. We therefore used the data on bid submissions to identify:
- (a) the number of ROSCOs collectively considered by TOCs; and
- (b) the number of ROSCOs collectively proposed by TOCs in bids to the DfT.¹⁵
15. These measures show a value of zero where no alternative fleets to the leased fleet were considered or included in bids or where any alternative fleets considered or proposed were owned by the ROSCO that leased the incumbent rolling stock. We considered that these measures were the most relevant to our competitive assessment.
16. The ROSCOs told us that new rolling stock is nearly always an alternative to used rolling stock. We therefore also examined whether new rolling stock was considered or bid as an alternative. This analysis is presented in paragraphs 26 to 28 so as to show separately the impact of including new rolling stock as an alternative. We also considered when new rolling stock was proposed in more detail, as set out in paragraphs 29 and 30.

Analysis of the data

Technical and operational alternatives

17. Figure 1 presents the number of technical alternatives for each fleet in our data set. On average there were 13.9 classes which the ROSCOs considered were technical

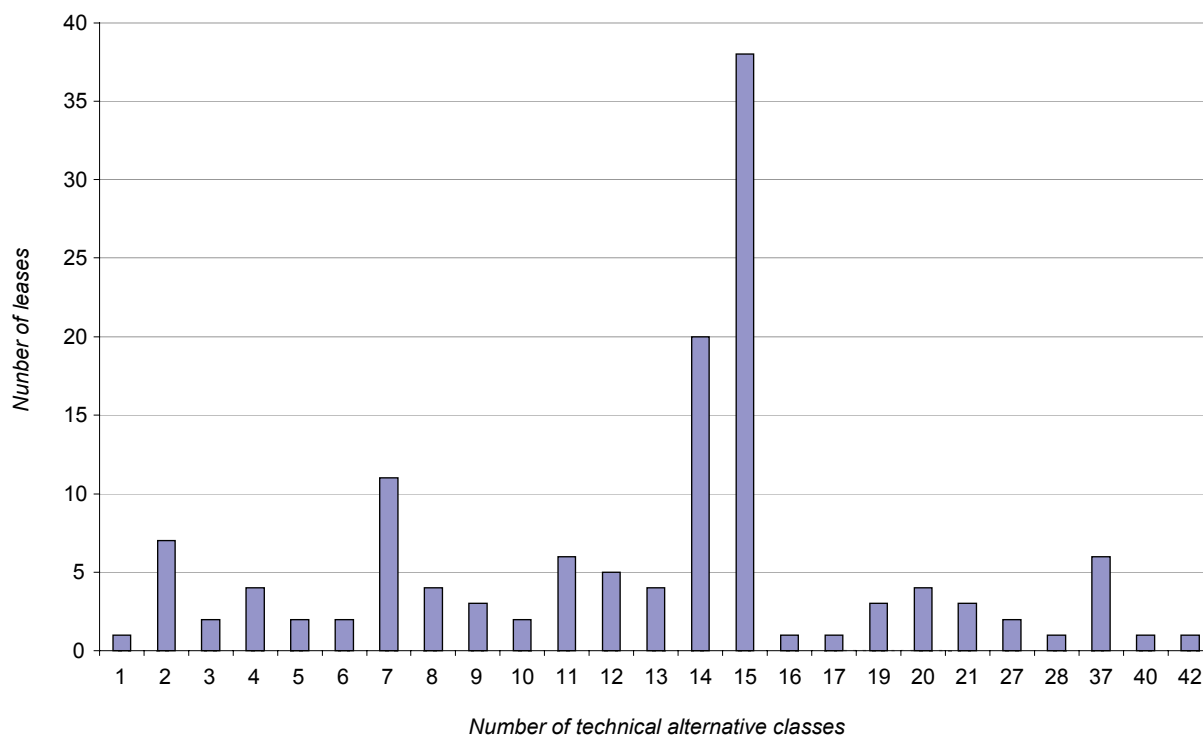
¹⁴Unfortunately, responses from TOCs on substitutability were not comprehensive and so we were unable to use them.

¹⁵There are a small number of cases (three) where we were unable to ascertain which ROSCOs were the relevant owners for fleets included in bids, there were more than one owning ROSCO for the class mentioned. In these cases we have assumed the maximum number of ROSCOs. For example, where we know Class 150s were included, but not whose fleets, we count this as two ROSCOs.

alternatives for each leased fleet. Figure 1 shows that there is a large range in the number of alternatives for each fleet that was leased.

FIGURE 1

Number of technical alternative classes for leased fleets



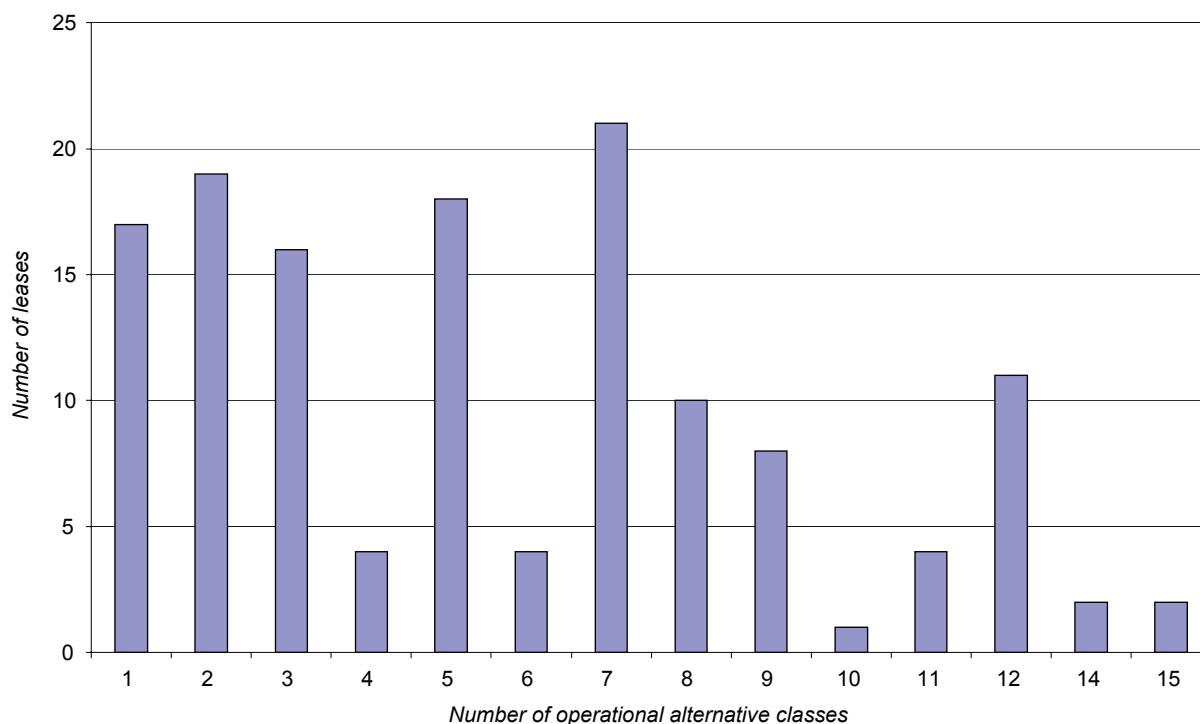
Source: CC analysis of ROSCO data.

Note: The horizontal axis does not include any observation for 18, 22 to 26, 29 to 36, 38, 39 and 41, as there are no observations with these numbers of alternatives.

- Figure 2 presents the number of operational alternatives for each leased fleet in our data set. As for Figure 1, it shows a large range in the number of alternatives for each fleet that was leased. On average there were 5.7 classes which the ROSCOs considered were operational alternatives for each fleet that was leased.

FIGURE 2

Number of operational alternative classes for leased fleets



Source: CC analysis of ROSCO data.

Note: The horizontal axis does not include any observation for 13, as there are no observations with this number of alternatives.

19. Figures 1 and 2 show that when operational factors are considered (alongside technical factors) there is a substantial reduction in the number of viable alternatives. The average number of alternative classes drops by more than half when operational considerations are taken into account. Common reasons that the ROSCOs gave for this reduction in alternative rolling stock classes included insufficiency of vehicle capacity or unsuitability for suburban routes (due to seating layout or door configuration) and lack of specific features necessary for particular services (eg maximum speed, provision of first class carriages or catering facilities).

Alternatives fleets and ROSCOs collectively considered by bidders

20. Figure 3 presents the number of alternative fleets collectively considered by TOCs when submitting bids to the DfT.¹⁶ On average, franchise bidders collectively considered 1.7 alternative fleets to the leased fleets of rolling stock.¹⁷ On 57 leases (42 per cent) no TOCs considered any alternative fleets and on 80 leases¹⁸ (58 per cent) TOCs collectively considered one or more alternative fleets.

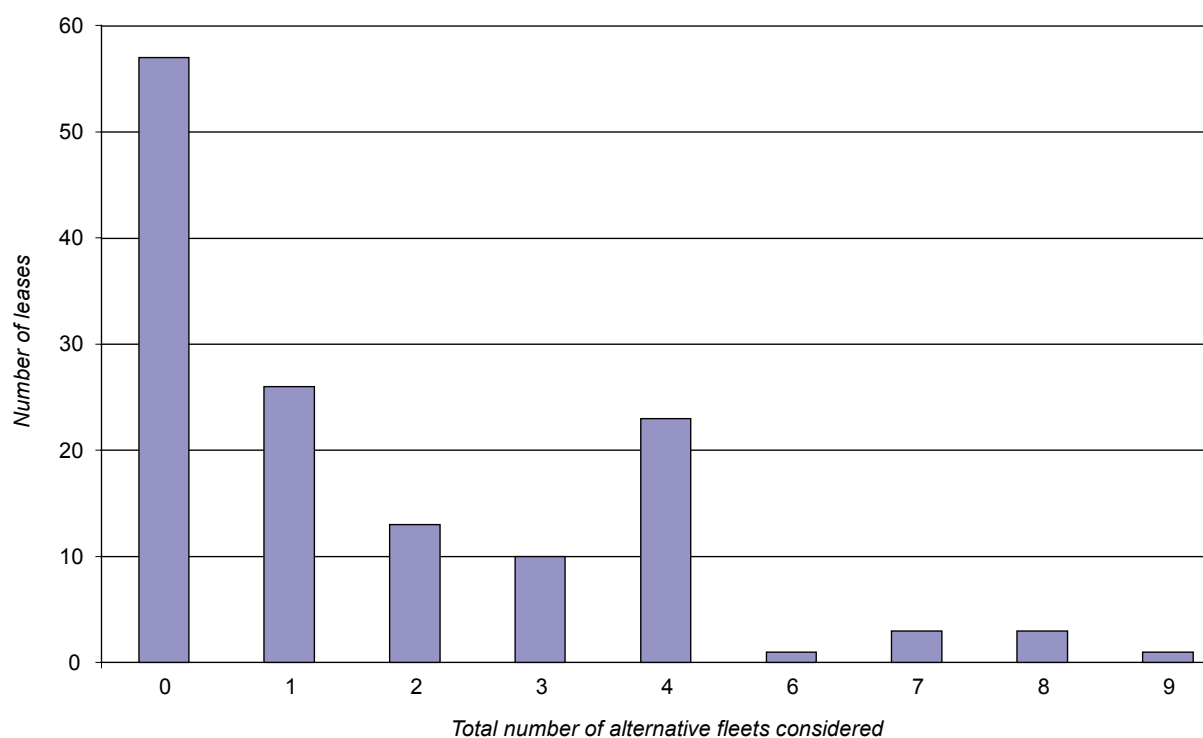
¹⁶This included all alternative fleets considered by TOCs in putting together their bids to the DfT—both those fleets which were included in bids and those which bidders stated had been considered but not proposed to the DfT.

¹⁷We cannot compare this figure with the number of technical and operational alternatives because that measure is based on alternative classes rather than alternative fleets.

¹⁸Our substitutability analysis (other than for technical and operational alternatives) only employs data for 137 leases rather than 142, as we had to exclude five leases that related to the London Rail Concession and Merseyrail, as these were not let by the DfT and so we did not have the relevant substitutability data in relation to those leases.

FIGURE 3

Number of alternative fleets collectively considered by all bidders



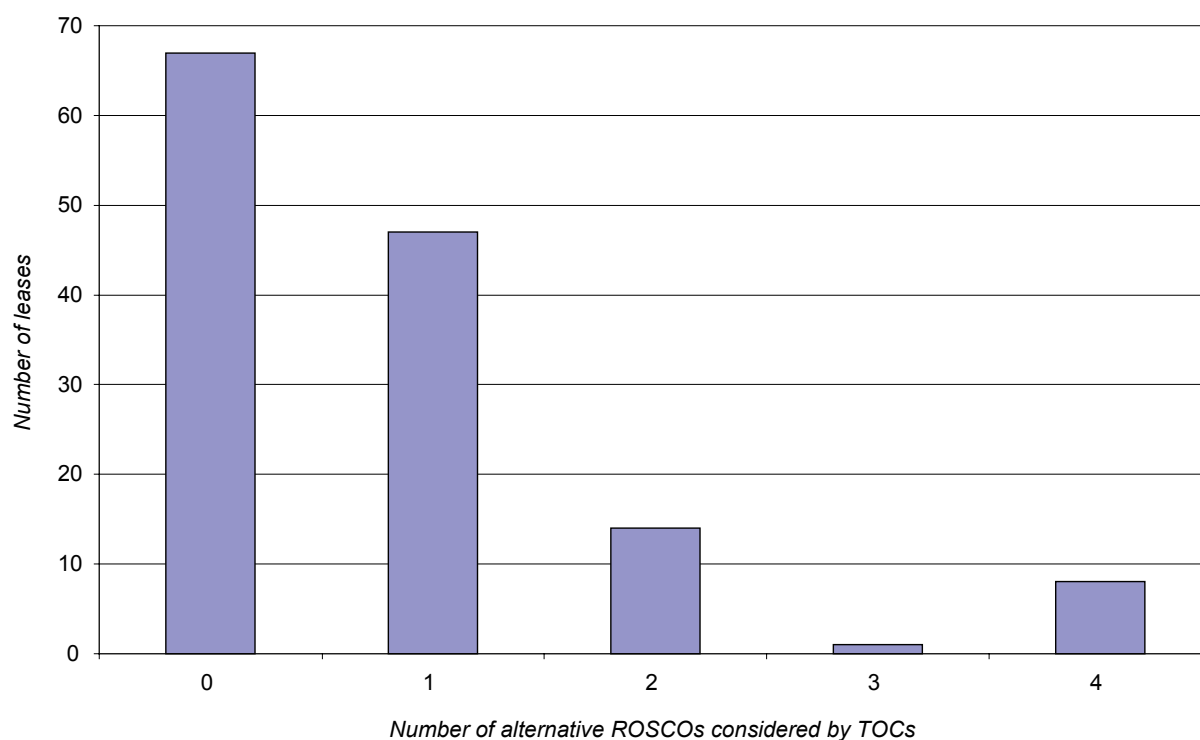
Source: CC analysis of DfT data of franchise bid submissions.

21. Figure 4 presents the number of alternative ROSCOs collectively considered by TOCs when submitting bids to the DfT. On average bidding TOCs collectively considered 0.8 alternative ROSCOs to the ROSCO that leased the rolling stock. In 67 leases (49 per cent) no TOCs considered an alternative ROSCO and in 70 leases (51 per cent) one or more alternative ROSCOs were collectively considered.¹⁹

¹⁹The cases where there were third and fourth alternative ROSCOs related to [redacted] and [redacted]. In no cases were there three alternative ROSCOs—bearing in mind that when Angel, HSBC and Porterbrook are involved this will typically represent one ROSCO owning the fleet that was leased and two alternative ROSCOs.

FIGURE 4

Number of alternative ROSCOs collectively considered by TOCs



Source: CC analysis of DfT data of franchise bid submissions.

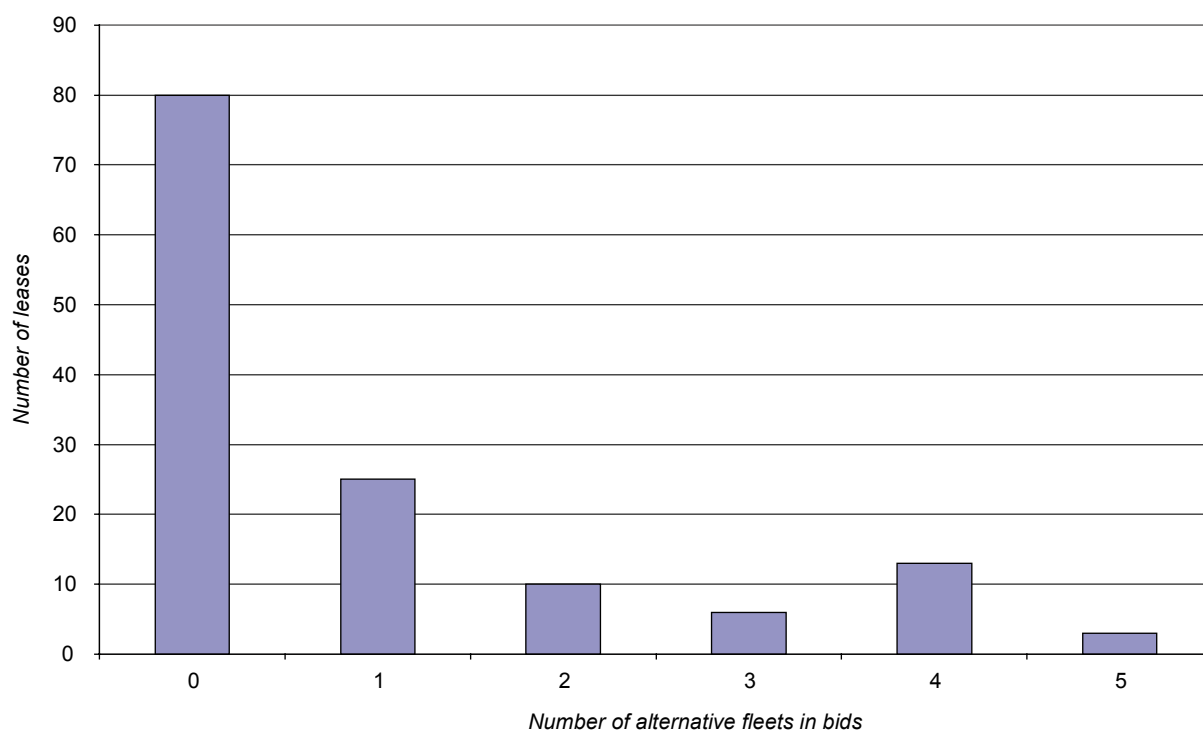
22. We examined the instances where the only alternative considered to the incumbent fleet was another fleet owned by the same ROSCO (ie the extent to which the number of alternative fleets in Figure 3 fell from one to there being no alternative ROSCOs in Figure 4). We found six instances (involving ten leases) where the only alternative rolling stock considered by bidders belonged to the same ROSCO as the fleet that was leased. These instances all related to alternative classes of DMUs (and in one case the alternative considered was a fleet of HSTs) which were owned by the same ROSCO.

Alternative fleets and ROSCOs collectively proposed by bidders

23. Figure 5 presents the number of alternative fleets collectively proposed by TOCs when submitting bids to the DfT. On average, franchise bidders collectively proposed to the DfT 0.9 alternative fleets to the leased fleet of rolling stock. On average, franchise bidders therefore collectively proposed almost half the number of alternatives that were considered. On 80 leases (58 per cent) no TOCs proposed any alternatives. One or more alternative was collectively proposed on only 57 leases (42 per cent).

FIGURE 5

Number of alternative fleets collectively included in all franchise bids

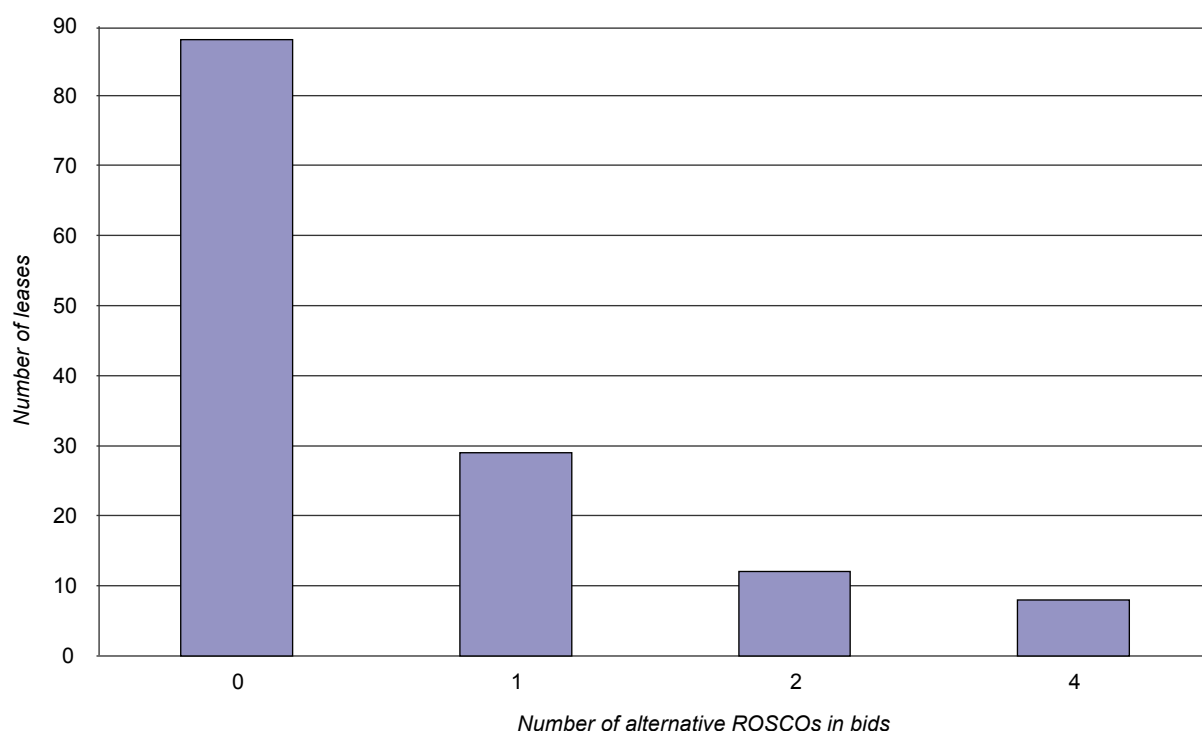


Source: CC analysis of DfT data of franchise bid submissions.

24. Figure 6 presents the number of alternative ROSCOs collectively proposed by TOCs when submitting bids to the DfT. On average bidding TOCs proposed 0.6 alternative ROSCOs to the ROSCO that leased the rolling stock. In 88 leases (64 per cent) no TOCs considered an alternative ROSCO and in 49 leases (36 per cent) one or more alternative ROSCOs were collectively considered.

FIGURE 6

Number of alternative ROSCOs in bids



Source: CC analysis of DfT data of franchise bid submissions.

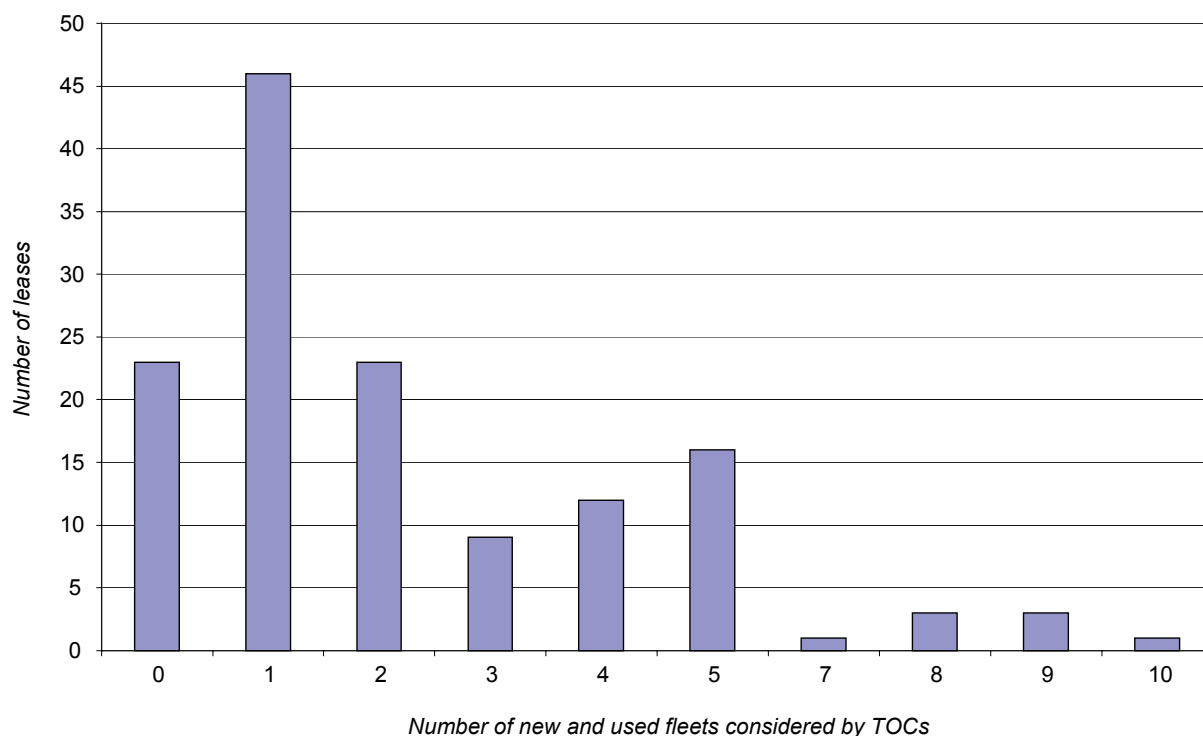
25. We examined the instances where a ROSCO's own rolling stock was the only alternative bid (ie the extent to which the number of alternative fleets in Figure 5 fell from one to there being no alternative ROSCOs in Figure 6). We identified five instances (involving eight leases) where the only alternative rolling stock proposed in bids to the DfT consisted of another fleet owned by the same ROSCO. These instances all related to alternative classes of DMUs which were owned by the same ROSCO.

New rolling stock alternatives

26. As noted at paragraph 16 we separately examined whether new rolling stock was collectively considered or bid as an alternative. Where new rolling stock was collectively considered or bid we added one to the alternative number of fleets in each instance. New rolling stock was collectively considered on 60 per cent of leases and proposed in bids on 56 per cent of leases.
27. Figure 7 shows the number of alternative fleets of used and new rolling stock collectively considered by bidders. On average bidding TOCs collectively considered 2.3 alternative fleets to the leased fleets of rolling stock. On 23 leases (17 per cent) no TOCs considered any used or new alternatives and on 114 leases (83 per cent) TOCs collectively considered one or more used or new alternative fleets. Comparing this pattern with that presented in Figure 3, we see that the inclusion of new rolling stock reduces the number of leases where there are no alternatives from 57 leases to 23, while the number of fleets where there are one or more alternatives increases from 80 leases to 114 leases. Angel and Porterbrook argued that this figure was significant (see paragraph 6.23 of the main report).

FIGURE 7

Number of alternative fleets of used and new rolling stock collectively considered

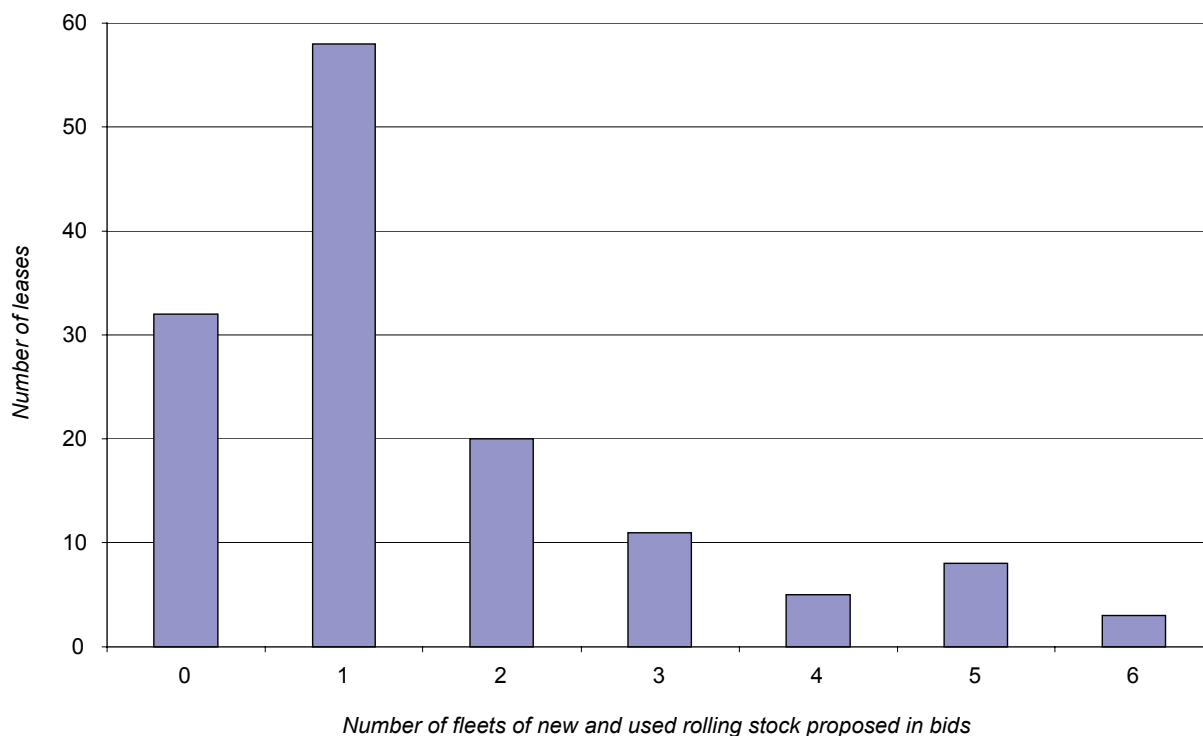


Source: CC analysis of DfT data.

28. Figure 8 shows the number of alternative fleets of used and new rolling stock collectively proposed in bids. On average, bidding TOCs collectively proposed 1.5 alternative fleets to the leased fleets of rolling stock. On 32 leases (23 per cent) no TOCs proposed any alternatives and on 105 leases (77 per cent) TOCs collectively considered more than one alternative fleet. Comparing this with Figure 5, we see that the inclusion of new rolling stock reduces the number of leases where there are no alternatives from 80 leases to 32 leases, while the number of fleets where there are one or more alternatives increases from 57 leases to 105 leases. This measure suffers from the same limitations as Figure 7.

FIGURE 8

Number of alternative fleets of used and new rolling stock collectively proposed



Source: CC analysis of ROSCO data.

29. In addition to this analysis, we examined in more detail instances where new rolling stock was collectively considered and bid by TOCs. Consistent with variables (c) and (d) in paragraph 10, Table 1 sets out the circumstances in which new rolling stock has been considered and proposed on 15 of the 17 franchise re-lets we examined.²⁰
30. Table 1 shows that:
- (a) Although new rolling stock was considered by bidders as an alternative to at least one fleet on a franchise in nearly all franchise re-lets and often (in 11 franchises) proposed in bids,²¹ this only related to one of the fleets on the franchise meaning that there were many fleets on each franchise re-let on which new rolling stock was not considered or proposed.

²⁰We have not included London Overground and Merseyrail in the table as we were not provided with bid data on these. We note that TfL has taken on new Class 172s and 378s. Consistent with Appendix 4.3 we also did not examine Southeastern, ICEC 2007 and Great Western Link.

²¹The DfT told us that in three of these 11 franchises (Greater Anglia, Northern and ICEC 2005) the proposed new rolling stock was not part of a base case proposal.

- (b) New rolling stock has only been introduced as a replacement for an incumbent fleet at five franchise re-lets. Two of these were due to the requirement for Mark I replacement and two were because of a specific ITT requirement.
- (c) New rolling stock is often not proposed because it is seen as too expensive (for example, One Greater Anglia, Northern, Greater Western).

TABLE 1 **New rolling stock taken on in franchise re-lets**

<i>Franchise</i>	<i>Franchise start date</i>	<i>New rolling stock considered in bids?</i>	<i>New rolling stock proposed in bids?</i>	<i>New rolling stock used?</i>	<i>Details</i>
Chiltern	01/02/2002	Yes	Yes	168s	The franchise ITT stated that bidders were obliged to plan for the introduction of significant new rolling stock. Both bidders proposed new rolling stock: One bidder [X] proposed these would replace existing Class 168s. The offer was for Class 168s or Class 175s. One bidder [X] did not specify the new fleet—just 100mph DMUs.
South West Trains 03	04/02/2003	Yes	Yes	444/450s	There was a large new rolling stock requirement as part of Mark I replacement programme. A number of bidders chose to replace some or all of the Class 455s with new rolling stock after seven years. One [X] bidder chose to replace the relatively new Class 458s with new rolling stock.
Southern	25/05/2003	Yes	Yes	377s	There was a large new rolling stock requirement as part of Mark I replacement programme. One [X] bidder opted to replace all of the Class 455/456 with new rolling stock as it found it would cost the same as using the incumbent fleet. Bidders proposed to replace the Class 319 vehicles with new rolling stock.
Arriva Trains Wales	07/12/2003	Yes	No	None	The ITT required bidders to use the existing rolling stock unless replacing was the lowest cost option. It was not expected that any new rolling stock should replace existing trains. One bidder [X] investigated using new DMU rolling stock and new Class 170s but found there would be little or no saving in relation to replacing Class 175s with new Class 170s.
TransPennine	01/02/2004	Yes	Yes	185s	Although the ITT was unavailable, we understand that the ITT specified that bidders should introduce new rolling stock as the incumbent fleet was perceived to be incapable of achieving the step change in service quality that the SRA was seeking. All three bidders proposed to use new rolling stock vehicles to replace the incumbent fleet. Each opted for different combinations of new rolling stock vehicles—Class 185s, 180s and 176s.
Greater Anglia	01/04/2004	Yes	Yes	None	One [X] bidder [X] considered the possibility of new EMUs but it did not propose this as its base case because it was significantly more expensive (£9 million per year).
Scotrail	17/10/2004	No	No	None	The ITT required that the 87 recently procured Porterbrook Class 170 vehicles were leased and that they should replace 12 Class 150s. No other new rolling stock proposed or considered.

Northern	12/12/2004	Yes	Yes	None	<p>Bidders were instructed to use the current fleet in delivering the WYPTE services but the ITT allowed bidders to propose alternatives for the non-WYPTE services.</p> <p>Two of the bidders examined the possibility of using new rolling stock to replace all or part of the DMU fleet. However, neither of them included new rolling stock as their base case proposal.</p> <p>One bidder [X] proposed replacing all or some rolling stock with new low-cost DMUs. It did not propose this as its base case because it was unable to develop the proposal in sufficient detail and obtain sufficient certainty within the time available.</p> <p>Another bidder [X] also considered new rolling stock but concluded it would be more expensive than retaining the existing fleet.</p>
ICEC 05	01/05/2005	Yes	Yes	None	<p>Bidders were told that they could not be the procurement agent for new HST fleets. One bidder [X] stated that it did not source new rolling stock offers for replacing HSTs because of this.</p> <p>The DfT told us that one bidder proposed a new diesel-powered variant of CTRL DS rolling stock, although this was not part of a base case proposal.</p>
Thameslink/ Great Northern	01/04/2006	Yes	No	None	<p>Three of the bidders investigated the possibility of using new rolling stock to replace the Class 319s but they concluded that the cost would be too high and lead times too long relative to the short minimum duration of the franchise: One bidder [X] considered it but found the lead times made it infeasible, and two bidders [X] found it too expensive.</p>
Greater Western	01/04/2006	Yes	No	None	<p>The DfT made it clear that no new trains were to replace HSTs due to the DfT's own IEP initiative. However, one bidder [X] investigated use of new Class 222s but these were not considered as an option due to their high price and low capacity.</p> <p>One [X] bidder [X] considered new rolling stock instead of DMUs but considered them more expensive.</p>
South West Trains 07	04/02/2007	Yes	Yes	None	<p>One [X] bidder [X] proposed to lease new rolling stock to provide additional capacity. Another [X] bidder [X] proposed a new metro style train to replace Class 442s.</p>
East Midlands	11/11/2007	Yes	Yes	None	<p>One [X] bidder [X] considered but did not propose new Class 172s and one [X] bidder [X] proposed a small number of new Class 222s.</p>
New Cross Country	11/11/2007	Yes	Yes	None	<p>One bidder [X] chose a new DMU solution as part of its solution to providing additional capacity for base case proposal B.</p>
West Midlands	11/11/2007	Yes	Yes	172s 350s	<p>Both bidders chose to replace the incumbent fleet of Class 321s with new Class 350s.</p> <p>One bidder [X] submitted a priced option which included the replacement of Class 150 vehicles with new Class 172s. The DfT decided to buy this option.</p>

Source: The DfT's franchise ITT and details of TOC's bid submissions provided by the DfT.

The DfT's assessment of substitutability

31. The DfT submitted its own analysis of substitutability based on how realistic alternative rolling stock was.
32. It found that 81 per cent of incumbent rolling stock²² (in terms of vehicle numbers) was leased for the duration of the new franchise term at franchise re-let. The DfT found that:
 - for 45 per cent there was 'no realistic alternative' (based on its assessment of what alternatives were realistic);
 - for 3 per cent there were 'very limited realistic alternatives';
 - for 3 per cent there were realistic alternatives, but the incumbent stock was chosen; and
 - for 31 per cent section 54s applied or specific mention was made in the ITT.
33. The remaining 19 per cent of incumbent rolling stock was not re-leased for the duration of the franchise term.
34. Table 2 sets out the franchise-by-franchise detail of the DfT's assessment.²³

²²The incumbent fleet is the fleet on the franchise prior to the franchise re-let.

²³Having reviewed the DfT's assessment, we identified a number of cases where the DfT's analysis had classified incumbent fleets as having 'no realistic existing alternatives', despite having submitted evidence to us that there were alternatives included in TOC bids. The DfT told us that in each case it considered that the alternatives were nevertheless not realistic alternatives.

TABLE 2 The DfT's assessment of the extent to which alternatives existed for franchise re-lets

	<i>Re-leased on a long-term basis (columns B to E)</i>							<i>per cent</i>
	<i>Life expired</i>	<i>Section 54/ specified in ITT</i>	<i>Limited realistic alternatives</i>	<i>No realistic existing alternatives</i>	<i>Available existing alternatives but incumbent vehicles chosen</i>	<i>Replaced by existing alternatives</i>	<i>Replaced by new build</i>	<i>Surplus—not retained</i>
	A	B	C	D	E	F	G	H
South Central	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Chiltern	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
SWT (2003)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Wales & Borders	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
TPE	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
GW Link	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Greater Anglia	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
ScotRail	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Northern Rail	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Intercity East Coast (2004/05)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Integrated Kent	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Greater Western	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
ThameslinkGN	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
South Western	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
East Midlands	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
West Midlands	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
New Cross Country	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
ICEC (2007)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Total	11.2	30.7	2.8	44.9	3.0	2.3	4.1	1.0

Source: The DfT.