

ROLLING STOCK LEASING MARKET INVESTIGATION

Maintenance working paper

Summary

1. In this working paper, we put forward the view that:¹
 - (a) In this inquiry, we are not considering the physical maintenance of vehicles but instead the provision of maintenance services to TOCs. The actual maintenance of vehicles by maintainers is a separate market with a large number of providers.
 - (b) A TOC is not necessarily 'locked in' to the ROSCO providing maintenance services as a significant number of dry leases have been agreed. This suggests that it is sensible to consider the provision of maintenance services as a separate relevant market from the leasing of rolling stock. However, we need to consider whether ROSCOs are engaging in practices to make it difficult for TOCs to choose dry leases.
 - (c) We heard no evidence to suggest that HSBC or Porterbrook were engaging in bundling of maintenance services with leasing of rolling stock or explicitly refusing TOCs dry leases.
 - (d) We received evidence that Angel had refused TOCs a number of dry leases and we will be investigating these instances further. We consider that refusal to offer a dry lease explicitly excludes a TOC from self-provision of maintenance services.
 - (e) We are also concerned that Angel's pricing approach on dry leases may have excluded TOCs from self-provision of maintenance services. There may, however, be efficiency reasons for ROSCOs providing maintenance services rather

¹A critical working assumption for exclusionary effects is that the ROSCOs each hold market power in rolling stock. If this assumption does not hold, then the ROSCOs would not be able to adopt exclusionary behaviour because they would not have any market power to leverage.

than TOCs in certain cases. It is not clear at this stage whether these efficiencies outweigh the exclusionary effects and we need to assess this in more detail.

(f) Even if Angel's bundled pricing approach to soggy and dry leases is not exclusionary, it may create a lack of price transparency for the TOC in deciding whether to switch from a soggy to a dry lease.

(g) TOCs considered that there was insufficient transparency in pricing for non-capital rental charges for all three ROSCOs. This appears to have been caused by two factors: (a) overhead allocations, and (b) maintenance reserve calculations. These issues make it more difficult for TOCs to take informed decisions in switching from soggy to dry leases. We need to examine further issues of price transparency.

(h) We found that ROSCOs have reached Service Level Agreements (SLAs) with TOCs in only a minority of lease agreements. This appears to be a matter that affects the quality of maintenance services provided to TOCs and is a consequence of any market power exercised by the ROSCOs in rolling stock leasing. Therefore when making our competitive assessment of rolling stock leasing we will consider whether adverse effects (to the extent that they occur) include non-price effects as well as price effects.

Introduction

2. Our terms of reference from the ORR specified a reference 'for an investigation into the leasing of rolling stock for franchised passenger services and the supply of related maintenance services ... in Great Britain'. 'Related maintenance services' are defined as 'the provision of services for the maintenance of leased rolling stock vehicles by a lessor (whether or not through a subcontractor), including, but not limited to, refurbishment and the overhaul or replacement of major components.'

3. In this working paper we consider the provision of maintenance services. We consider (a) the relevant market for the provision of maintenance services, (b) exclusionary effects,² and (c) additional maintenance issues raised by third parties.

The relevant market for the provision of maintenance services

4. In this section we consider whether the provision of maintenance services for each fleet, class or type³ of rolling stock should be considered a separate market from the leasing of that rolling stock. We begin by providing some background on how maintenance of rolling stock is undertaken.

Background on maintenance of rolling stock

5. There are two types of maintenance work on rolling stock:
 - (a) light maintenance includes day-to-day maintenance (including cleaning, inspection and fuel point exams for diesel vehicles) carried out at a suitable maintenance location; and
 - (b) heavy maintenance involves the planned overhaul of major components (eg engines, bogies or door equipment) at a maintenance location which has lifting facilities. The periodicity of heavy maintenance varies according to the class of vehicle; some is scheduled on a mileage basis and some on a time basis.
6. Light and heavy maintenance services are provided in different ways depending on the type of contract agreed between a ROSCO and a TOC. Three categories of lease exist—a ‘wet’ lease, a ‘soggy’ lease and a ‘dry’ lease:⁴

²Exclusionary effects are explained in paragraphs 22 to 25.

³We have defined these terms in the Substitutability working paper.

⁴In practice, some leases may exhibit aspects of more than one of these three categories.

- (a) under the terms of a wet lease, the ROSCO takes contractual responsibility for providing both heavy and light maintenance to the TOC for the rolling stock on lease;
- (b) under the terms of a soggy lease, the ROSCO takes contractual responsibility for providing heavy maintenance, and the TOC takes contractual responsibility for providing light maintenance services; and
- (c) under the terms of a dry lease, the TOC takes contractual responsibility for providing both heavy and light maintenance.

7. Table 1 shows the extent to which these different lease types are used as at July 2007.

TABLE 1 Different types of maintenance contracts used by ROSCOs and TOCs, as at July 2007

Lease type	Division of responsibility for maintenance	Angel	HSBC	Porterbrook
Wet	ROSCO takes responsibility for providing both heavy and light maintenance	*§	9% †	1%
Soggy	ROSCO takes responsibility for providing heavy maintenance	§	64% [§]‡	32%
	TOC takes responsibility for providing light maintenance			
Dry	TOC takes responsibility for providing both heavy and light maintenance	§	27%	67%

Source: CC analysis of ROSCO data.

*Percentage of vehicles.

†[§]

‡Some HSBC MOLA contracts consist of wet/soggy and wet/dry mixes for different maintenance services.

§Data for Angel has yet to be confirmed.

8. At privatization all MOLA⁵ contracts were soggy leases. Since then, ROSCOs and TOCs have entered into both wet and dry leases. Table 1 illustrates that wet leases are restricted to new rolling stock and dry leases form a significant percentage of

leases (27 and 67 per cent of vehicles for HSBC and Porterbrook respectively), mostly in relation to new rolling stock.

9. Although ROSCOs contract with TOCs for the provision of maintenance services, ROSCOs themselves do not actually have the in-house capability to carry out the maintenance work. Instead, a ROSCO will outsource this requirement to a third party maintainer that may carry out both heavy and/or light maintenance work (depending on the type of lease). The ROSCO project manages the maintenance work it obtains from a maintainer so as to provide the TOC with a complete maintenance service.⁶ Maintainers may also carry out maintenance work for TOCs where there is a dry lease. In this case, the TOCs will project manage the maintenance work.⁷ Maintainers include:
 - (a) Original Equipment Manufacturers (OEMs) such as Bombardier and Siemens;⁸
 - (b) specialist maintenance providers (such as Wabtec Rail, Associated Rewinds and Axiom Rail); and
 - (c) TOCs.
10. ROSCOs only provide maintenance services to TOCs for their own rolling stock, and not for other ROSCOs' rolling stock.
11. Figure 1 sets out the vertical relationships between TOCs, ROSCOs and maintainers for the different types of leases.

⁵Master Operating Lease Agreement (MOLA)

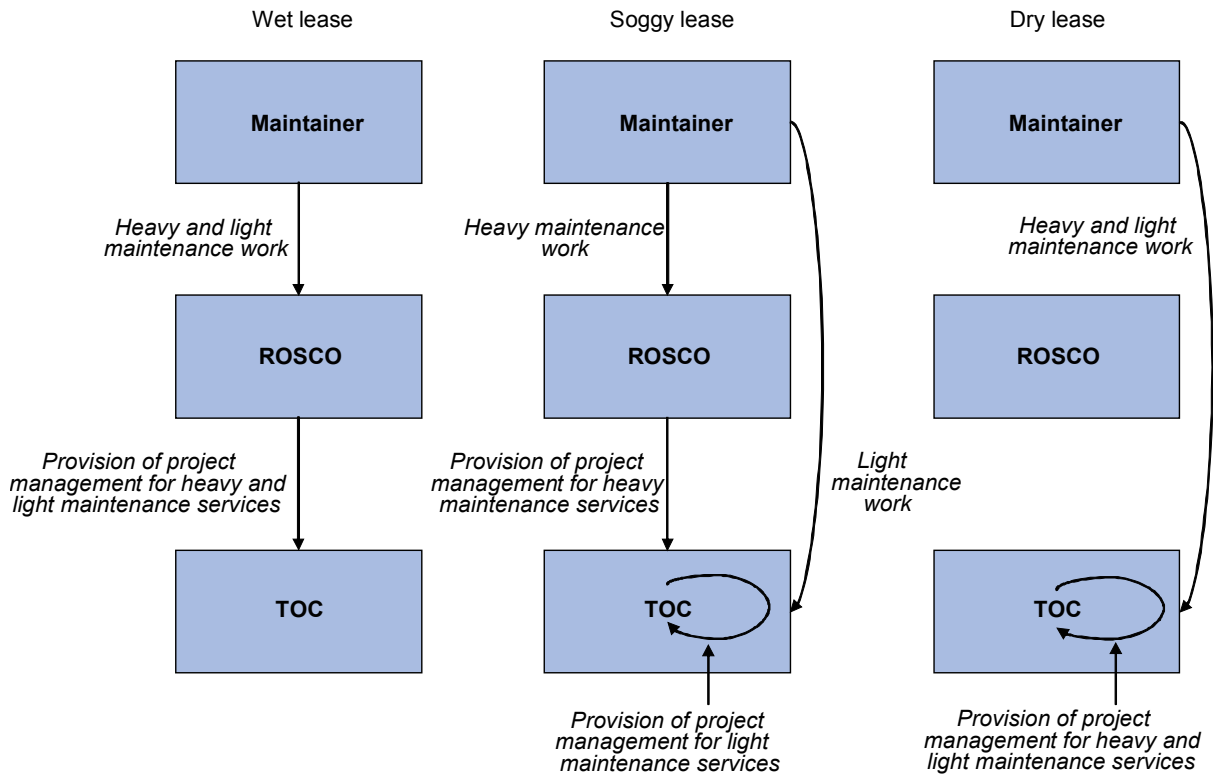
⁶Project management includes specification, contracting, approving and delivering maintenance.

⁷The ROSCOs retain a residual project management role in order to discharge their contractual obligations and for asset management purposes.

⁸Rolling stock maintenance is sometimes carried out by maintenance providers other than the OEM (for example, Bombardier carried out heavy maintenance on Angel's Class 465s built by Alstom, and Wabtec overhauled bogies on HSBC's Bombardier-manufactured Class 170s).

FIGURE 1

Vertical relationships between TOCs, ROSCOs and maintainers



Source: CC analysis.

12. In this inquiry, we are not therefore not considering the physical maintenance of vehicles but instead the provision of maintenance services to TOCs. The actual maintenance of vehicles by maintainers is a separate market with a large number of providers.

Consideration of the relevant market for provision of maintenance services

13. In this section we assess whether the provision of maintenance services by the ROSCOs for each fleet, class or type of rolling stock should be considered as a separate market from the leasing of that rolling stock. We first consider the concept of 'aftermarkets' and then its application to rolling stock.

Aftermarkets

14. Aftermarkets arise where consumers purchase durable goods⁹ that require the purchase of some complementary products, at least some of which are purchased at a later date than the purchase of the durable product. The consumer durable is referred to as the 'primary product' whilst the complementary product is referred to as the 'secondary product' or the 'aftermarket'. A good example of a primary product is a printer, with printer ink cartridges the secondary product.

15. Technical differences between various primary products often mean that the choice of complementary products compatible with a primary product is limited. This implies that once the primary product has been purchased, consumer choice is confined to those aftermarket products or services compatible with that primary product. In the example of the printer, once a consumer has purchased a particular printer, this can only be used with ink cartridges compatible with that printer. In other words, consumers can become 'locked in' to certain aftermarket suppliers.

16. In considering market definition for aftermarkets, it is useful to consider a wider product market definition to include the aftermarket product or services with the primary product or service. If a customer is effectively 'locked in' to one aftermarket supplier (essentially giving the supplier 100 per cent market share), the customer is essentially choosing between a combination of primary and secondary products ('systems') when making the primary product purchasing decision. For example, the consumer chooses between particular brands of printers. Once he/she makes this choice he/she can only buy the ink cartridges that are compatible with those printers.

⁹A durable good is one which can be used more than once over a certain period of time. Examples are cars, computers and any white goods.

Application to rolling stock

17. In the context of this inquiry, the leasing of rolling stock is the primary service and the provision of maintenance services is the secondary service. We therefore need to consider the extent to which TOCs are locked in to choosing provision of maintenance services from the lessor of the rolling stock:
 - (a) If a TOC has the option of choosing a dry lease, this suggests that the TOC is not locked in to the ROSCO providing maintenance services under a soggy or wet lease.
 - (b) If, however, ROSCOs engage in practices which prevent TOCs from taking dry leases, this suggests that TOCs may have to choose between 'systems' when deciding between rolling stock.

18. Table 1 shows that a significant percentage of leases are now dry leases. This shows that TOCs are able in many cases to obtain maintenance services for rolling stock other than from the ROSCO that is leasing the rolling stock. In terms of market definition, this suggests it is sensible to consider the provision of maintenance services as a separate relevant market from the leasing of rolling stock. However, it may be that in some cases ROSCOs are able to engage in practices which might aim to lock TOCs in to purchasing maintenance services through the ROSCO (ie through pressure to take a soggy or wet lease). We consider the extent to which this is occurring in the exclusionary effects section below.

Exclusionary effects

19. A number of parties raised concerns over the ROSCOs' conduct in the provision of maintenance services. In this section, we consider whether ROSCOs have bundled and/or tied the provision of maintenance with the leasing of rolling stock. We first

explain the economic theory behind bundling and tying and then consider its application to the provision of maintenance services and rolling stock.

Economic theory of bundling and tying

20. 'Bundling' and 'tying' are forms of price discrimination.¹⁰ Tying refers to making the sale of product B conditional on the purchase of product A. The two goods or services are sold together in variable proportions (for example, printers and any number of printer ink cartridges that are made only for that printer and are subsequently purchased). Bundling refers to tying in fixed proportions (for example, car components such as engines and tyres). The price of the bundle must be cheaper than the price of each product when sold separately, otherwise no one would buy the bundle.
21. Firms may bundle or tie products for a number of reasons. These can be categorized into two broad reasons:¹¹ (a) strategic reasons and (b) efficiency reasons. It is not necessarily the case that bundling is anti-competitive because there may be efficiencies that we need to take into account when assessing the impact on customers. The CC's Guidelines state that we should consider the competitive effects first and then assess whether there are any offsetting efficiencies or relevant customer benefits.¹² We therefore adopt this approach in this working paper.

Strategic reasons

22. In terms of strategic motives, firms may bundle (a) to reduce price transparency or (b) to gain competitive advantage and create a barrier to entry. We consider both

¹⁰That is the ability of firms to charge different prices to different customers that place different value on the same products. Tying is regarded as price discrimination because the average price for the products varies with intensity of use—high-demand users pay a lower average price than low-demand users. Bundling is regarded as price discrimination because it can enable firms to average out prices across two products rather than pricing to the customers with the lowest valuations.

¹¹See DTI Economics Paper No.1 *Bundling Tying and Portfolio Effects*, Professor Barry Nalebuff, 2003, Chapter 3.

¹²*Market Investigation References: Competition Commission Guidelines, CC3*, June 2003, paragraph 4.38.

possibilities in this working paper. It is straightforward to see that a bundled price makes it more difficult for a customer to understand the price of each component separately. The creation of barriers to entry through bundling is less obvious, so we explain this in more detail in this section.

23. If a firm has market power in one market (product A) it may be able to leverage that market power into an associated market (product B) through bundling or tying.¹³ By tying/bundling two products together, a monopolist of product A is able to commit to acting more aggressively in the market for product B. The inability of competitors to offer product A means they cannot compete effectively with the packaged offering of products A and B. Competitors in the market for product B may therefore be forced to exit (or, barriers for potential entrants appear higher because of the need to offer both products in order to be able to compete effectively). The process of bundling or tying may lower profits in the short to medium term for product B because the monopolist of product A is acting more aggressively in the market for product B. However, in the longer term profits will rise when competitors are forced out of the market (or find it more difficult to enter than before). Such strategies therefore increase barriers to entry and are known as 'exclusionary effects'.¹⁴
24. Exclusionary effects through bundling or tying can only be effective where a firm is capable of irreversibly committing to selling the two products together (for example, through product design or technological processes, such as the integration of Internet browsers with operating systems). A commitment may not be irreversible if bundling or tying is achieved only through marketing or packaging rather than through technological processes or product design. If the monopolist of product A is unable to make such an irreversible commitment, competitors in the market for product B

¹³Using bundling or tying may be one way to ensure that a secondary product or service becomes part of the same market as the primary product or service.

would know that if they stayed in the market for long enough (or entered the market) the incumbent would eventually stop bundling or tying because of the lower profits it was earning as a result of competing more aggressively in the market for product B.

25. Consider our example of tying printer ink cartridges with printers. By tying the purchases of the two products, a firm may be able to leverage market power in one market to the other. There is a technological commitment because the ink cartridges and printers cannot be used with other manufacturers' products.

Efficiency reasons

26. Firms may also undertake bundling or tying for efficiency reasons. Bundling may:
- (a) be more efficient than selling two products separately if it allows economies of scale or scope to be realized (for example, car components); and
 - (b) reduce transaction costs and be more convenient for customers.

Bundling the provision of maintenance services with the leasing of rolling stock

27. In this section, we consider whether ROSCOs bundle or tie the provision of maintenance services with the leasing of rolling stock. The situation is different from straightforward bundling because the TOC is the customer as well as the alternative provider of maintenance services. We consider whether such bundling or tying has a potential exclusionary effect by preventing a TOC from obtaining maintenance services from elsewhere.¹⁵ This is the same as asking whether a TOC is able to switch from a wet or soggy lease to a dry lease.

28. We make two key assumptions for our analysis:

¹⁴For a fuller explanation, see, for example, Whinston (1990) *Tying, Foreclosure and Exclusion*.

¹⁵This may be through self-provision or through a third party.

(a) For exclusionary effects to occur, a ROSCO must have market power in the leasing of the particular rolling stock in question. If this assumption does not hold then a ROSCO would not be able to adopt exclusionary behaviour because it would not have any market power to leverage.

(b) A competitive market exists for the supply of maintenance services by maintainers.¹⁶

29. Consistent with CC guidelines, we consider exclusionary effects initially and then whether the efficiency arguments outweigh these exclusionary effects. To do so, we assess:

(a) why a TOC might choose to take on a dry lease rather than a soggy or wet lease;

(b) the extent to which dry leases are offered by each ROSCO;

(c) whether a ROSCO may be more efficient than a TOC at providing maintenance services; and

(d) our view on bundling rolling stock with maintenance.

Why a TOC might choose to take on a dry lease

30. In a competitive market for maintenance provision with transparent non-capital rentals¹⁷ we would expect some TOCs to choose to provide maintenance services themselves in order to remove the margin being charged to them by ROSCOs. Some TOCs submitted that they preferred dry leases to soggy or wet leases:

(a) Three out of eight TOCs [X] preferred to take responsibility for heavy maintenance services themselves, primarily to help manage costs and avoid paying the ROSCO a margin.

¹⁶As noted above, this market is outside our terms of reference and we have not received any evidence to suggest that this market should not generate a competitive price. We therefore assume that a competitive price is being charged by a maintainer to a ROSCO (for a soggy lease) or to a TOC (for a dry lease).

¹⁷We consider the transparency of non-capital rentals and maintenance reserves and the extent to which this may distort market behaviour at paragraphs 55 to 64. Here we focus on bundling of rolling stock and maintenance.

(b) Five out of eight TOCs [X] stated that the choice of lease depended on the precise terms available and the rolling stock to be leased. Arriva suggested that dry leases were preferable on longer franchises, soggy leases on shorter franchises, and wet leases on new build where the manufacturer had expertise and competence to maintain the fleet.

31. These responses suggest that not all TOCs would want a dry lease in all situations. Where the TOC has a capability to manage maintenance costs (or even undertake maintenance) using its engineering expertise, it may be able to make savings over the non-capital rentals offered by the ROSCO because these include a margin for the ROSCO. A TOC may also benefit from being able to manage better the maintenance process—combining light and heavy maintenance examinations and determining when the rolling stock is serviced so as to fit in with other fleets.
32. The ability of a TOC to provide maintenance services is likely to depend upon:
- (a) ease of access to heavy maintenance depots to carry out maintenance;
 - (b) the extent to which engineering expertise has been gained from other franchises;
 - and
 - (c) the complexity of the rolling stock.¹⁸
33. If these three factors are within the TOC's capabilities, then it may be able to provide maintenance services to a similar standard to the ROSCOs.

¹⁸For example, new rolling stock may be more difficult to maintain than MOLA rolling stock.

Offers of dry leases

34. In this section we consider whether ROSCOs have excluded TOCs from providing maintenance services. Exclusionary effects may occur through (a) a straightforward refusal to offer dry leases, or (b) bundling to make dry leases unattractive.

Refusals to offer dry leases

35. When we asked each of the TOCs to comment on the ease of switching to dry leases from wet or soggy leases, five TOCs [REDACTED] said that ROSCOs tended to be more amenable to offering older rolling stock on dry leases, but wanted mid-life fleets on a wet/soggy basis. However, there were contrasting views on the approaches of each ROSCO to dry leases:

(a) four out of eight TOCs [REDACTED] said that they had never been refused a request for a dry lease by any ROSCO;

(b) four TOCs [REDACTED] commented on Angel's refusal to offer a dry lease;

(c) one TOC [REDACTED] stated that HSBC was flexible on older stock but not on new stock.

However, it provided no evidence to support this claim; and

(d) four TOCs [REDACTED] suggested that Porterbrook was very receptive to dry leases.

36. TOCs raised concerns only in relation to Angel's refusal to offer dry leases.¹⁹ Angel stated that it prefers to take responsibility for heavy maintenance because of concerns over TOCs' lack of incentives to maintain the asset over the duration of the lease term, and we consider these efficiency reasons below. We will examine further after publication of Emerging Thinking the reasons behind Angel's refusal to offer dry leases.

¹⁹HSBC noted that maintenance is a prerequisite on its Class 365s (built one year prior to privatization), where it is tied to a maintenance contract with Bombardier. However, the TOCs for this rolling stock did not raise this as a concern.

Bundling of maintenance with rolling stock

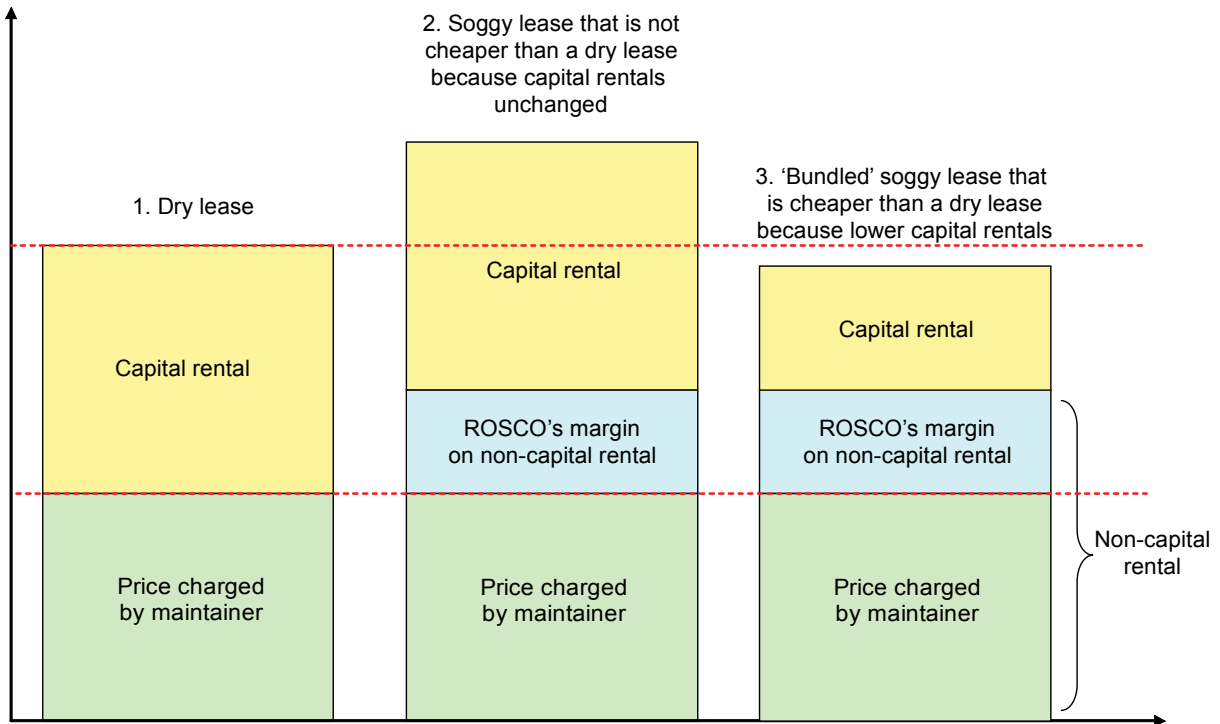
37. Having considered refusals to offer dry leases (which is clearly exclusionary), we now consider whether the ROSCOs use bundling to deter (and ultimately exclude) TOCs from taking dry leases.

38. As we noted in paragraph 8, to make a bundled product more attractive to a customer, the price of the bundle must be lower than the combined price of each of the two products separately, otherwise the customer will continue to purchase the products separately. If we assume there is a competitive price for the physical maintenance of vehicles, it can be shown that bundling through a soggy lease is only cheaper if the ROSCO offers a lower capital rental on soggy leases than on dry leases.²⁰ Figure 2 illustrates this.

²⁰This assumes that a dry lease is available to a TOC.

FIGURE 2

Bundling of maintenance services with rolling stock



Source: CC.

39. We consider the ROSCOs' approaches to pricing of soggy and dry leases in the Pricing summary appendix to Emerging Thinking:

(a) Angel stated [REDACTED].

(b) HSBC and Porterbrook told us that capital rentals remained unchanged whether on a wet, soggy or dry lease.

40. We also examined examples of rental offers made to TOCs. We found no examples of either Porterbrook or HSBC increasing capital rentals on dry leases. However, we found that in several situations where Angel's fleets have transferred from soggy to dry leases, capital rentals have increased. [REDACTED]

Efficiency reasons for bundling

41. There may be efficiency reasons for ROSCOs bundling products (or only offering wet or soggy leases). We consider two in this section: (a) economies of scale, and (b) differences in incentives between ROSCOs and TOCs.

Economies of scale

42. It may be more efficient to sell two products or services together when it allows economies of scale to be realized. We noted in the Entry working paper that economies of scale may exist from holding a portfolio of rolling stock. This related, in part, to the expertise that engineers can gather from dealing with a number of different classes or types of rolling stock. Managing maintenance of rolling stock may therefore be more efficient when carried out by ROSCOs (with experience across a number of different fleets) rather than TOCs (with more limited experience). The maintenance of rolling stock on a dry lease may also create additional monitoring costs for the ROSCO.²¹

Differences in incentives

43. Leasing an asset for a period of its life creates an important difference in the incentives of the lessor and lessee of the asset in relation to maintaining the asset:
- (a) A ROSCO will be interested in keeping the rolling stock in good condition for the next lease term (and potentially a different franchisee). Failure to do so may lead to the rolling stock being unattractive and potentially not being leased, or leased at a lower rental.²²
 - (b) A TOC will be interested in maximizing the utilization, reliability and performance of the rolling stock and minimizing the cost of its maintenance for the period of

²¹TOCs may also be less knowledgeable of modern circuitry on new rolling stock compared to traditional maintenance on older rolling stock.

the lease. It will not know whether it will retain the franchise so will want to ensure it extracts maximum value for the price it is paying.

44. This difference in incentives may create an efficiency reason for the ROSCO not offering dry leases. Angel stated that it considers the needs of its customers and provides a wide variety of operating lease products. It further suggested that TOCs on dry leases did not always fulfil maintenance responsibilities in a satisfactory manner, hence its stated position that it would only offer dry leases where the franchisee and/or subcontractors had sufficient capability and incentives to ensure that maintenance was carried out to a satisfactory standard.
45. We therefore examined evidence of TOCs not fulfilling maintenance responsibilities in a satisfactory manner:
- (a) Angel commented on the poor condition of fleets at the end of [REDACTED] and on the [REDACTED]. Angel submitted that in this case it had to deploy its own resources to oversee the maintenance planning for the fleet to ensure that the necessary heavy maintenance was carried out [REDACTED].
 - (b) Angel added that ‘in the early days of the industry the TOCs’ ability to perform maintenance was poor. That has improved over time and, therefore, our willingness or the criteria that we set TOCs before we would agree to a dry lease has been more readily achieved in recent years than it has been in early years’.
 - (c) HSBC told us that the TOCs were not necessarily best placed to do maintenance on mid-life rolling stock. [REDACTED] HSBC did not submit any specific examples of TOCs not fulfilling maintenance responsibilities.
 - (d) Porterbrook told us that ‘TOCs have found that managing maintenance is not as easy to do or as risk-free as they perceive, and it becomes something of a

²²Although attractiveness of the rolling stock depends on the views of the TOC, which may wish to undertake the maintenance itself.

distraction in managing their other franchise commitments'. Porterbrook noted that it had 'identified in a number of cases that the TOCs who have [rolling] stock on a dry lease arrangement and therefore undertake all of their own maintenance are not maintaining according to the laid down procedures'. Porterbrook did not submit any specific examples of TOCs not fulfilling maintenance responsibilities.

(e) Alstom submitted that TOCs had only a short-term interest in rolling stock and wished to keep their costs to a minimum while maximizing the use of the asset. It referred to [REDACTED] difficulties in maintaining the [REDACTED].

(f) The PTEG, on the other hand, told us that in its experience, TOCs did not take a short-term view and took maintenance extremely seriously and did actively invest in reliability improvements.

46. We will be assessing these claims further in order to understand whether TOCs have fulfilled maintenance responsibilities on dry leases.

Our view on bundling of maintenance with rolling stock

47. We heard no evidence to suggest that HSBC or Porterbrook were engaging in bundling of maintenance services with leasing of rolling stock or explicitly refusing TOCs dry leases.

48. Although we are considering further the possibility of exclusionary behaviour by Angel, the extent to which it can do so profitably is determined by the extent of its market power in rolling stock.

49. We received evidence that on a number of occasions in relation to MOLA rolling stock Angel had refused to agree a dry lease with a TOC. We consider that refusal to offer a dry lease shows explicit intent to exclude a TOC from obtaining maintenance

services from elsewhere. Angel's vehicles which are on dry leases are mainly rolling stock that has been introduced since privatization and not MOLA rolling stock. Angel noted that some fleets that had been offered on a dry lease were not taken on that basis. We have concerns about Angel's refusal to offer dry leases on MOLA rolling stock.

50. [✂]

51. Although such behaviour may be exclusionary, in certain cases there may be efficiency reasons for ROSCOs providing maintenance rather than TOCs. In other instances, as described in paragraphs 30 to 31, TOCs may be able to make significant cost savings by taking dry leases. It is therefore not clear at this stage whether efficiency arguments outweigh exclusionary effects, and we need to assess this in more detail.

52. Even if a bundled pricing approach is not exclusionary, it may create a lack of price transparency for the TOC in deciding whether to switch from a soggy to a dry lease. We consider transparency in the next section.

Other maintenance issues

53. In addition to exclusionary effects, we were told about concerns in relation to three further maintenance issues:

(a) Reliability improvements and modifications/refurbishments are often recovered through higher capital rentals; non-transparent maintenance charges make it difficult to understand whether these costs are already covered in the initial non-capital rental charges [✂].

(b) There is a lack of price transparency in relation to (a) maintenance costs on soggy leases and (b) the calculation of the maintenance reserve [redacted].

(c) The ROSCOs are unwilling to offer back-to-back performance regimes or SLAs with TOCs to share the risk of poor maintenance with TOCs and/or lack of availability of rolling stock [redacted].

54. We will consider (a) after Emerging Thinking once we have investigated additional capital expenditure in more detail. We consider (b) and (c) below.

Transparency issues

55. A lack of price transparency can distort market behaviour by sending the wrong market signals to customers. To assess the benefits of switching from a soggy to a dry lease a TOC would (a) need price transparency over the non-capital rental charges so as to understand the costs involved in maintenance.

56. We asked TOCs about their views on the transparency of non-capital rental charges. All eight TOCs that answered this question noted some issues around price transparency:

(a) five TOCs [redacted] noted that non-capital charges were clearly provided separately from capital rental charges; however

(b) each TOC raised concerns that these non-capital rental charges were not particularly transparent in relation to the costs of the ROSCO. For example, Arriva stated that it was difficult to understand the pricing approach of the ROSCOs and Govia submitted that it was difficult to relate the pricing of non-capital rentals in MOLA leases to the actual cost of heavy maintenance; and

(c) National Express submitted that there was no transparency in models for pricing wet and dry leases and that dry leases did not reflect the saving from ROSCOs passing on responsibility for provision of maintenance services.²³

57. This suggests that non-capital charges may be insufficiently transparent for a TOC to make an informed decision about whether to have a soggy or dry lease. The lack of transparency relates to two particular aspects: (a) recovery of overheads, and (b) calculation of the maintenance reserve.

Recovery of overheads

58. The pricing approach to maintenance adopted by each ROSCO is of concern because it is not clear what overheads are recovered through the margin in non-capital charges on soggy leases. As a result, the non-capital charge may not truly reflect the cost of provision of maintenance services. If non-capital charges appear artificially high (because, for example, the margin covers overheads not related to maintenance), a TOC may choose to switch to a dry lease. If price signals are misleading, the TOC may find that the savings it can make on self-provision of maintenance services are not as great as anticipated. Porterbrook told us that there had been a trend in TOCs switching to dry leases, finding them difficult to actually manage, and so beginning to switch back to soggy leases. Porterbrook told us of four cases where rolling stock had switched from a dry lease to a soggy lease.²⁴ Conversely, Angel and HSBC told us that no rolling stock had yet reverted from a dry lease to a soggy lease. Angel noted that one TOC [redacted] had seriously considered a soggy lease in recent franchise negotiations but opted to retain the fleet on a dry lease.

²³We have questioned above whether the ROSCO would need to undertake additional maintenance supervision work under dry leases.

²⁴[redacted]

59. As noted at paragraph 39, [REDACTED] We need to understand further how this allocation is calculated.

Calculation of the maintenance reserve

60. To ensure that the TOC pays a reasonable proportion of lifetime maintenance costs over the duration of a lease, for some dry leases a maintenance reserve system is used by two of the ROSCOs [REDACTED]. Unlike the other two ROSCOs, the third ROSCO does not utilize a maintenance reserve on dry leases. [REDACTED]
61. Three TOCs (First, GNER and Govia) submitted that there were problems in the calculation of a 'maintenance reserve':
- (a) First submitted that in switching to a dry lease a ROSCO required funds to be provided in a reserve to cover future maintenance works, but that this often did not fully take into account the outstanding amount remaining in such reserves under previous leases or amounts paid to cover maintenance work under previous leases. First stated that in some cases insufficient account was taken of any previous reserve balances or payments such that First itself had to fund known imminent examinations.
 - (b) GNER submitted that there was a concern over the transparency of financial aspects in non-capital rentals and in the calculation of the maintenance reserve when starting a dry lease.
 - (c) Govia submitted that in respect of MOLA leases, in its experience, it had not been possible to identify the maintenance reserve specific to a train lease, because the ROSCO pooled the money and did not provide visibility of spend/accumulation per lease. Moving to a dry lease was therefore a difficult proposition mid-life.

62. The ROSCOs considered that maintenance charges were transparent or could be provided on a transparent basis. For example, HSBC submitted that its ‘maintenance reserve payment is entirely transparent and subject to annual reviews to ensure funding assumptions are accurate’.
63. Based on this mixed evidence we need to investigate further issues of price transparency on maintenance reserves.

Conclusion on transparency

64. TOCs considered that there was insufficient transparency in pricing for non-capital rental charges for all three ROSCOs. This appears to be caused by two factors: (a) overhead allocations and (b) maintenance reserve calculations. These issues make it more difficult for TOCs to take informed decisions in switching from soggy to dry leases. We will examine further issues of price transparency after publication of Emerging Thinking.

Performance regimes/Service Level Agreements

65. Serco Ned identified a lack of performance criteria (except in new rolling stock leases) for maintenance, such that there was little incentive for ROSCOs to improve rolling stock reliability or availability. Serco Ned was the only TOC to raise such a concern.
66. We asked each ROSCO about the extent to which they have used SLAs:
- (a) Angel stated that it sought to incentivize suppliers wherever practicable to do so, including liquidated damages for late delivery and warranty defects, which were then passed on to the TOC in rental rebates. SLAs were in place on many of Angel's new build fleets—either directly between the TOC and manufacturer for

dry leases [X] or by tripartite agreements on wet leases [X]. Angel added that MOLA fleets²⁵ were difficult to have such agreements on because of the split of maintenance responsibilities on soggy leases.²⁶

(b) HSBC stated that there were no performance regimes on dry leases as the TOC carried out maintenance itself. On wet leases, there were tripartite agreements between the TOC, HSBC and the OEM. On soggy leases, HSBC made similar commitments which it considered 'go above and beyond the terms of a typical SLA'. HSBC noted that, in practice, contractual terms were not effective motivators and did not always guarantee high performance.

(c) Porterbrook stated that its only SLA was on the Class 170s leased to One Anglia [X]. Porterbrook submitted that this arrangement had led to the Class 170 fleet being one of the best performing of this class of rolling stock. Porterbrook also noted that it used to have an SLA on a wet lease for rolling stock on Thameslink.

67. We found that ROSCOs have reached SLAs with TOCs in only a minority of lease agreements. This appears to be a matter that affects the quality of maintenance services provided to TOCs and is a consequence of any market power exercised by the ROSCOs in rolling stock leasing. Therefore, when making our competitive assessment of rolling stock leasing we will consider whether adverse effects (to the extent that they occur) include non-price effects as well as price effects.

²⁵Under the original MOLA agreements the ROSCO rebated rentals to the TOC for days lost due to late redelivery and defective heavy maintenance.

²⁶Angel pointed to two components with SLAs: Liebherr air-conditioning systems and Vapor Stone air conditioning on Class 158s.