OFFICE OF RAIL REGULATION

Periodic Review 2008

Enhancing Incentives for Continuous Improvements in Performance: A Consultation Paper

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Executive summary

1. The review of the incentives framework is a key component of the 2008 Periodic Review (PR08). Our aim is to establish a robust incentive framework for Network Rail – and also, to a degree, for the wider industry - for the control period 2009 to 2014 (CP4), but the effects of that framework will extend beyond this. Our decisions need to be consistent with the delivery of a strategy for the railway that reflects the expectations both of users and of those providing public funding.

2. We are taking a high level approach to the review, focussing on assessing whether the current incentive framework is consistent with achieving our PR08 objectives (Annex B) and, more generally, our vision for the rail industry in the longer term; and, if not, where and how improvements can be made.

3. Although significant improvements have been achieved by the rail industry over the last few years, the constraints we have identified within the existing regulatory framework lead us to question the extent to which the framework is consistent with our objectives and can be relied upon to drive further improvements on a continuous and sustained basis.

4. In particular:

   - We have identified key misalignments between the incentives facing Network Rail and the priorities and objectives of funders/customers, which may lead Network Rail to be less responsive to the needs of train operators (franchised and open access passenger operators and freight operators) or the ultimate customer than it should be;

   - The price signals facing franchised train operatoring companies (TOCs) are not updated through the life of their franchises, potentially reducing the efficiency of network usage and reducing their incentive to exert pressure on Network Rail to reduce costs;

   - Detailed specification of service level requirements for franchises can mean that TOCs, who are the parties closest to users, have limited freedom to innovate in their service offer; although we understand that it is now Government's policy to specify only minimum frequencies and to allow flexibility in the service offering beyond this level; and

- The existing incentive based regulatory framework, on which we predominantly rely to drive Network Rail's performance, is weakened by the company's current financial structure.

5. There are clearly incremental improvements that could be made to the existing regulatory framework, for example in relation to strengthening the power and design of Network Rail's Management Incentive Plan (MIP) and the individual incentive schemes, such as the volume incentive, and / or in relation to the balance between 'carrots' and 'sticks' facing the company.

6. Wider specification of outputs to cover Network Rail's array of roles could also be expected to deliver performance benefits, and help to move the industry some way to achieving our vision.

7. However, we believe there may be a limit to the extent to which such amendments can be expected to drive continuous and sustained improvements going forward.

8. This then raises the question as to how best the constraints identified can be addressed. We recognise that no fundamental changes to the industry structure or Network Rail's financial structure are envisaged.

9. Nevertheless, we believe that there is benefit in exploring whether there are incremental changes, within the framework set out in the White Paper[1], that can be made that could improve the incentives facing Network Rail and its partners to achieve our vision for the industry and deliver real long-term benefits to funders and users. We believe that such amendments would be consistent with making the framework set out in the White Paper work effectively and, where appropriate, enable it to evolve.

10. We have identified potential:

- Improvements to the alignment of incentives along the value chain that could be made under the existing industry structure, including benefit sharing mechanisms between Network Rail and train operators

[1] Department for Transport, July 2004, *The Future of Rail,* White Paper CM6233

(franchised, open access passenger and freight) aimed at driving out cost inefficiencies; and

- Methods for strengthening the financial incentives facing Network Rail at the corporate level that could be expected to provide better incentives for investment and result in a reduction in whole industry costs.

These are detailed in chapters 4 and 5, respectively.

11. The Office of Rail Regulation (ORR) recognises that we only have certain levers to facilitate change and that other parties would have to be persuaded in respect of the desirability of changes where we do not have the levers, if these are deemed appropriate.

12. We would welcome your views on any of the issues raised in this paper and, in particular, on the options set out for enhancing incentives with the aim of promoting effective industry partnerships to deliver value for money improvements to the railway for the benefit of passengers and freight customers

1. Introduction

Context

1.1 Our long-term vision for the GB rail industry is a successful partnership of Network Rail, operators, suppliers and funders, working together to meet the needs of passengers and freight customers, and delivering a safe, high performing, efficient and developing railway[2]. Ensuring that an appropriate framework is in place that aligns incentives along the value chain is crucial if this vision is to be realised.

1.2 The railway industry has made considerable progress in the last few years, with Network Rail making significant improvements in both its cost efficiency and its operational performance. The current regulatory framework has facilitated this progress.

1.3 Nevertheless, considerable challenges remain. In addition to striving for continuous and sustained improvements in safety, performance and efficiency, Network Rail needs to become more proactive in developing new partnerships if the rail industry is to meet the significant challenges brought about by the expected continued rise in demand for rail services and rising customer expectations.

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1.4 Within the framework of the 'high level output specifications' (HLOSs) and the 'statements of public funds available' (SoFAs) that will be provided to us by the Secretary of State for Transport and Scottish Ministers, the PR08 will determine Network Rail's outputs, revenue requirement and access charges for CP4 (from 1 April 2009 to 31 March 2014)[3]. Annex A contains the PR08 timetable including the key milestones of the review of the incentives framework.

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2 As set out in our *Corporate Strategy: ORR, April 2006, Corporate Strategy 2006-09* and *Business Plan 2006-07*, available at http://www.rail-reg.gov.uk/upload/pdf/280.pdf.

3 Further explanation of the process is set out in ORR, August 2005, *Periodic Review 2008: First Consultation Document*, which can be downloaded from http://www.rail-reg.gov.uk/upload/pdf/245.pdf.

1.5 Our overarching objective for PR08 is to ensure an outcome that secures value for money, by determining the level of Network Rail's access charges and outputs in a way that balances the interests of all parties. Annex B contains our specific objectives for PR08.

1.6 A key component of PR08 will be to establish the incentive framework within which Network Rail and its partners will operate. We are undertaking a review of the current incentive framework, focused on assessing whether it aligns incentives appropriately along the value chain with the public interest and is consistent with our long-term vision for the industry; and, if not, how this can best be addressed within the framework set out in the 2004 White Paper.

1.7 We are taking a high-level approach, focusing on the overarching issues. Once we have concluded on these high-level issues, we will consider the detailed design of individual incentive mechanisms needed to address the problems and issues identified.

1.8 The incentive framework is closely related to Network Rail's financial framework, the structure of access charges and the investment framework. Although this consultation paper focuses on the overall incentive framework for Network Rail and its partners, our decisions will be coordinated carefully with those for other PR08 work streams[4].

Purpose of this document

1.9 Our purpose here is to set out and consult with you on the overarching incentives issues.

1.10 Our analysis so far has been informed by a series of useful meetings with Network Rail, the Department for Transport (DfT) and the Association of Train Operating Companies (ATOC), as well as the outputs of a stakeholder workshop held at ORR on 23 May 2006[5]. We have also commissioned three studies to help inform our views: two high-level 'think pieces' on the role of incentives for Network Rail and the wider industry, which were undertaken by

4 Our consultation document on the structure of charges for CP4 was published in June: ORR, June 2006, *Periodic Review 2008: Structure of Track Access and Station Long-Term Charges*, available on our website at http://www.rail-reg.gov.uk/upload/pdf/291.pdf. A series of consultation letters will be published later this year on Network Rail's financial framework.

5 The workshop focused on the outputs that Network Rail should be incentivised to deliver and on whether/how the alignment of incentives along the value chain could be improved.

CEPA and Oxera, and a study from NERA on the likely financial impact of various possible amendments to the franchising regime. All three studies are being published on our website in parallel with this document[6].

1.11 We see continued dialogue with key stakeholders as an integral part of the process in reaching robust and appropriate conclusions on the incentive framework.

1.12 Our paper is structured as follows:

- Our objectives for the review of the incentives framework and the role of incentives in achieving these are set out in chapter 2;
- Chapter 3 sets out the constraints to achieving the objectives that we have identified within the existing regulatory framework;
- Chapters 4 and 5 then explore ways in which these constraints might be addressed. Options for improving the alignment of incentives along the industry value chain within the existing industry structure are set out in chapter 4. Chapter 5 considers whether there are amendments that could be made to Network Rail's financial framework that would not require a fundamental change to its existing financial structure, and that could be expected to improve the incentives on Network Rail and offer value for money to funders and users;
- Chapter 6 sets out the technical aspects of the incentives framework and Network Rail's financial framework that will be the subject of further consultation later this year;
- The overall timetable for PR08 and the specific objectives for PR08 are provided in Annexes A and B, respectively.

Your views

1.13 We would welcome your views on any of the issues we have raised in this paper. In particular, we would like you to address:

[6] www.rail-reg.gov.uk

- ***How Network Rail should be incentivised to develop and grow the network, and the relative merits of the various approaches set out in chapter 4;***

- ***Whether it is desirable to incentivise Network Rail and its partners to seek innovative ways to delivering outputs, irrespective of the basis on which those outputs were funded at PR08;***

- ***Whether benefit sharing mechanisms between Network Rail and train operators, of the type set out in chapter 4, could be expected to drive material improvements in Network Rail's efficiency;***

- ***Whether the possible incremental amendments to the franchising regime set out in chapter 4 could be expected to improve incentives on TOCs and result in greater innovation and/or efficient network usage; and***

- ***The merits of the proposed approaches to amending Network Rail's financial framework set out in chapter 5.***

1.14 Responses in respect of Network Rail's financial framework (i.e. predominantly the issues raised in Chapter 5) should be sent to us by ***Friday 22 September 2006***. This earlier closing date has been chosen to fit with the timetable for discussing possible approaches with the financing community.

1.15 The closing date for responses in respect of all other issues raised in this document is ***Friday 20 October 2006.***

1.16 In both cases, responses should be sent us in electronic format (or, if not possible, in hard-copy format) to:

Hannah Nixon
Head of Regulatory Economics
Office of Rail Regulation
1 Kemble Street
London WC2B 4AN

Tel: 020 7282 2146

Email: Hannah.Nixon@orr.gsi.gov.uk

1.17 We will make your response available in our library, publish it on our website and may quote from it. If you wish all or part of your response to remain confidential to us then please indicate this clearly. We will publish the names of all respondents.

1.18 Copies of this paper can be found in the ORR library and on the ORR website (www.rail-reg.gov.uk).

Next steps

13. In February 2007 we will publish our *Advice to Ministers and Framework for Setting Access Charges* document. This will include our conclusions on the high-level issues surrounding the framework that are the subject for consultation here.

2. Objectives and the role of incentives

Network Rail's role

2.1 The 2004 White Paper and Railways Act 2005 set out a new framework for the GB rail industry, including a wider role for Network Rail. As well as responsibility for operating, maintaining, renewing and enhancing the network and improving its own performance and efficiency, Network Rail has contractual and licence responsibilities for operational leadership of the industry, i.e. driving overall network performance and industry planning, as well as for facilitating network enhancement.

2.2 Network Rail's role is therefore wide ranging. The regulatory framework must reinforce the incentives on the company to perform each of its roles well, to forge partnerships with the passenger (both franchised and open access) and freight train operating companies as well as others in the industry to improve whole industry outcomes, and allow for the appropriate balance between its various objectives to be achieved.

Specific objectives

2.3 Our review of the incentives framework is being undertaken as part of PR08. Our focus is on assessing whether the current regulatory framework is consistent with achieving our objectives for PR08 (Annex B) and, more generally, our vision for the rail industry in the longer term; and, if not, where and how improvements can be made.

2.4 Our aim is to establish an appropriate incentive framework for Network Rail – and also, to a degree, for the wider industry - for the period 2009 to 2014, but the effects of that framework will extend beyond this. Our decisions need to be consistent with delivery of a strategy for the railway that reflects the expectations both of users and of those providing public funding.

2.5 We consider that an appropriate framework needs to incentivise Network Rail – and to the extent possible, other industry players - to:

- Secure continuous improvements in the safety, performance and customer satisfaction on a sustainable basis where this represents value for money and meets legitimate societal needs;

- Invest appropriately to develop and enhance the network to meet the requirements of funders and the aspirations of stakeholders, to the extent that it is efficient to do so;

- Secure continuous improvements in cost efficiency and value for money; and

- Achieve an appropriate and justified balance between the various objectives.

2.6 We are committed to the well recognised best practice regulatory principles of proportionality, accountability, consistency, transparency and targeting, pursuing the public interest objectives set out in section 4 of the Railways Act 1993.

2.7 Further, we are committed to ensuring that the incentive framework is compatible with the devolution of powers and responsibilities for specifying and funding railway outputs to local administrations, including Transport Scotland, Welsh Assembly Government, the Mayor of London, the six Passenger Transport Executives (PTEs) in England, and the various community rail partnerships.

The role of incentives in achieving effective industry partnerships

2.8 We believe that our objectives can best be achieved if:

- Network Rail and its partners face strong, consistent and continuous incentives that are aligned with the needs of users of the railway, and the objectives and priorities of government and other funders;

- Within an overall strategy set by government and other funders, and recognising the benefits of the railway as a network, wherever possible and practical decision-making is decentralised to empower the private sector and other local enterprises to make decisions in accordance with market needs;

- Industry participants face appropriate price/cost signals at each point in the value chain;

- Market mechanisms and competition are fostered;

- Network Rail and other industry players are subject to effective accountability through safety and economic regulation in the public interest; and

- The industry takes an active role in developing the arrangements that underpin successful delivery.

2.9 Ensuring Network Rail and its partners face appropriate and well-aligned incentives is therefore at the heart of our regulatory approach.

The importance of output specification

2.10 Defining appropriately and with clarity the array of output measures that Network Rail is required to deliver and on which it is monitored is crucial if our objectives are to be achieved, and unwanted distortions are to be avoided.

2.11 As the primary objective of the incentive framework is to align the company's interests with those of funders and customers, Network Rail should be incentivised to deliver those outputs that are valued by its customers and funders, i.e. final outputs such as network capacity and availability, that customers and funders wish to purchase. This is because customers and funders are more concerned about the delivery of these outputs than the delivery of, for example, the number of track kilometres renewed or an efficient possessions strategy (termed intermediate outputs), which, while being necessary for the delivery of final outputs, are not themselves the products that customers and funders ultimately value. Indeed, they may be provided without required final outputs necessarily being delivered appropriately.

2.12 We recognise, however, that incentivising final outputs in isolation may distort incentives. In particular, it may well be possible to maintain or even improve final output measures in the short-term while threatening their long-term sustainability. For example, inappropriate reductions in asset stewardship in order to save costs may compromise Network Rail's ability to deliver its outputs in the future (or increase the net present value of costs in delivering those outputs), and/or compromise long-term asset condition and serviceability of the network without impacting the delivery of final outputs in the short term. We recognise that it may therefore be appropriate to incentivise intermediate outputs where relying on final output measures alone is inadequate.

2.13 For CP4, it is therefore our intention to specify Network Rail's required outputs (consistent with the efficient delivery of the HLOS) in terms of final outputs, as far as possible. These outputs will need to cover all of Network Rail's functions, including operational performance, reliability, availability, capability and capacity; as well as 'softer' outputs such as customer satisfaction, with appropriate definitions for each. They will need to be specified at the appropriate level of geographic disaggregation, and will need to allow appropriate trade-offs to be made both across outputs and inter-temporally.

2.14 We believe there is, however, a limit to the extent to which outputs can be specified appropriately ex ante and from a central position that is removed from the customer, particularly in relation to 'softer' outputs such as engagement with industry partners. Indeed, over-specification of outputs may lead to limited scope and incentives to innovate and respond to changing market conditions, and may distort outcomes. Similarly, there is a limit to which specifying requirements to engage with partners can be expected to change mindsets or outcomes.

2.15 While government and other funders clearly have an important role in the overall specification of outputs for rail, sole reliance on specifying defined outputs to incentivise Network Rail delivery could be damaging. In particular, it could be expected to limit the company's ability to innovate, to become increasingly customer focused, and to be more proactive in undertaking its whole industry role and meet customer needs beyond the HLOS; in conflict with our objectives for the review.

2.16 We see appropriate output specification as an essential starting point for incentivising Network Rail and its partners to achieving our vision, not the means in itself. Parties then need to face incentives to innovate, respond to changes in circumstance, and work in partnership to achieve whole industry outcomes to deliver more than just the outputs specified.

The scope for changes to the incentive framework for CP4

2.17 In addition to ensuring that the outputs that Network Rail is required to deliver are appropriately and well specified, there are a number of improvements that could be made within the existing framework, particularly in relation to the strength and design of the Management Incentive Plan (MIP), the design of individual financial incentives (e.g. the volume incentive) and the balance between ‘carrots’ and ‘sticks’ that Network Rail faces. The Oxera paper sets out a number of such potential improvements and we are undertaking work to develop the options more fully.

2.18 However, we believe that there are also amendments that could be made to the existing regulatory and financial framework for the rail industry that would address the identified current constraints, and could have a marked impact on the extent to which and speed at which the long-term vision for the industry could be achieved.

2.19 We recognise that no fundamental changes to the industry structure or Network Rail’s financial framework are envisaged. There is little appetite for such changes across the industry; the new structure and responsibilities that have resulted from the White Paper still need to bed down fully.

2.20 Nevertheless, there may be incremental amendments that could be made to the existing regulatory framework that could overcome the constraints we have identified and have a marked effect on the extent to which and speed at which the long-term vision for the industry could be achieved. We believe that such amendments would be consistent with making the structure set out in the White Paper ‘work better’, and where appropriate enable it to evolve.

2.21 We recognise that, as the regulator, we only have certain levers to facilitate change, and that other parties would have to be persuaded in respect of the desirability of changes where we do not have the levers, if these are deemed appropriate.

3. Assessing the existing framework

CP3 performance to date and the challenges ahead

3.1 We have to date predominantly relied on the traditional incentive based regulatory framework adopted by other UK regulators of network industries to regulate Network Rail, supplemented by a range of management incentives and corporate governance arrangements.

3.2 Network Rail has made significant improvements in safety, cost efficiency and operational performance[7], demonstrating its ability to deliver and outperform where it has well-defined targets. The rail industry has also made considerable progress in working together in recent years; the Network Rail – TOC partnership approach to improving performance being a case in point[8]. The current regulatory framework has facilitated this progress.

3.3 Nevertheless, considerable challenges remain:

- **Cutting costs**: although Network Rail has worked hard to regain control of its cost base and is currently outperforming the efficiency assumptions made at Access Charges Review 2003 (ACR2003), there is still a long way to go on efficiency. A study[9] conducted for us to inform our *Initial Assessment* document published in December last year, estimated that Network Rail may have scope for further improvements in efficiency of up to 8% per annum during CP4;

- **Customer responsiveness**: a recurring theme at meetings with stakeholders and one that arose from the consultation on the investment framework[10] is the need for Network Rail to improve its customer focus and responsiveness, as well as its willingness to pursue innovative solutions. Network Rail needs to become more proactive in developing

7 See, for example, our Q4 2005-06 GB Network Rail Monitor, available at http://www.rail-reg.gov.uk/upload/pdf/nr_monitor_q4-gb.pdf.pdf.

8 See paragraph 4.26 below.

9 LEK Consulting (International) Ltd and Oxera Consulting Ltd, December 2005, *Assessing Network Rail's scope for efficiency gains over CP4 and beyond: a preliminary study,* is available at: http://www.rail-reg.gov.uk/upload/pdf/lek-oxera-cp4efficiencygains.pdf.

10 Responses to the consultation on the investment framework can be found on our website at http://www.rail-reg.gov.uk/server/show/ConWebDoc.7125.

new partnerships to meet customer expectations and the rising demand for rail services.

- **Growing and developing the network**: there is a consensus that the strong growth in passenger and freight traffic recorded over the last ten years is likely to continue, requiring a much greater focus on making better use of existing capacity as well as developing the capacity and capability of the network. Network Rail will need to be more proactive in finding whole industry solutions to access planning and timetabling constraints; as well as identifying and undertaking beneficial incremental enhancements to the network and accommodating third-party schemes. We recognise that this may require changes to the industry architecture, such as the Network Code, to provide a greater degree of flexibility in responding to changing customer needs.

- **Safety**: Network Rail needs to build on the general improvement in safety achieved over the last decade and to foster continuous improvement; and

- **Operational performance**: this has recovered well since Network Rail took over, but further and sustained improvement is necessary to meet customer and stakeholder expectations. In particular, Network Rail needs to engage with its partners to find ways of reducing disruptions to the network caused by engineering works.

3.4 The question then arises as to how best these challenges can be addressed. In particular, to what extent are the existing (i) regulatory framework for Network Rail and (ii) incentive framework for the wider industry consistent with achieving continuous improvement in the industry?

3.5 The remainder of this chapter examines these issues, focusing first on the alignment of incentives along the industry value chain, and then turning to the efficacy of the incentives acting on Network Rail at both corporate and management levels.

Alignment of incentives along the value chain

3.6 The complex structure of the industry brings challenges of coordinating production and investment decisions and specification and management of interfaces by the various players. As highlighted in chapter 2, if value for money is to be provided to users and taxpayers, incentives along the value chain need to be aligned with the public interest.

3.7 At present, there is a perception that the alignment of incentives along the value chain may be weaker than it should be, meaning that total system costs for any given level of outputs may not be minimised. Indeed, this was a central theme brought out at our May stakeholder workshop.

3.8 The fundamental issue that has been identified is the lack of correspondence between whole industry costs and whole industry revenues, resulting from misalignments in incentives between industry players and the pubic interest. In particular, Network Rail faces only limited exposure to variations in operators' revenues[11], and TOCs are insulated from changes in Network Rail's cost base and the structure of access charges, at least during the life of their franchise contracts. As a result, we believe that:

- Network Rail faces weak incentives to grow and develop the network even where this would result in revenue growth;
- TOCs face weak financial incentives to exert pressure on Network Rail to reduce its costs; and
- TOCs' incentives and freedom to optimise network usage are limited.

3.9 We have also identified a number of other key misalignments in incentives between Network Rail and TOCs.

Incentives on Network Rail to grow and develop the network

3.10 Under the current structure of charges, variable track access charges are intended to cover the wear and tear cost of usage. The rationale for such an approach is that it should promote efficient use of the existing network. It is our intention to carry this principle forward into CP4[12].

3.11 However, such an approach does mean that the structure of charges does not, in itself, provide incentives on Network Rail to grow and develop the

[11] Network Rail is exposed to the extent that TOCs' revenues, and hence Network Rail's Schedule 8 payments, are affected by performance and there is an indirect effect through the volume incentive (see paragraph 3.14).

[12] See chapter 4 of our recent consultation on the structure of charges for CP4 - ORR, June 2006, *Periodic Review 2008: Structure of track access and station long-term charges* – which can be found on our website at: http://www.rail-reg.gov.uk/upload/pdf/291.pdf.

network, either by enhancing the capacity of the existing network (e.g. via improved timetabling) or by identifying and undertaking incremental enhancements. This is because Network Rail's profits are broadly unaffected by changes in either (i) the number of vehicles running over the network, or (ii) the number of passengers/volume of freight transported. In other words, while Network Rail shares in industry cost risk, it does not share in revenue risk. There is therefore a disjuncture between whole industry costs and revenues.

3.12 This means that, absent any supplementary incentive, Network Rail should be broadly indifferent to the level of utilisation of the network, and so has little financial incentive to increase the capacity of the existing network. Indeed, the company may be disincentivised from accommodating increases in traffic volumes to the extent that this may adversely impact operational performance. This is because, although the company is financially neutral to this trade-off through the capacity charge[13], operational performance has been the subject of intense political and media interest, potentially distorting reputational incentives.

3.13 With regard to identifying and undertaking incremental enhancements (beyond those for which it is explicitly funded for), Network Rail does arguably face incentives to invest as any such investment (on the basis it is economic and efficient) would be added to the regulatory asset base (RAB), on which it would earn a rate of return. However, there is a question as to (i) whether this is a sufficiently strong incentive, and (ii) the efficacy of the incentive on Network Rail provided by RAB additions.

3.14 In an attempt to provide stronger incentives on Network Rail, particularly in relation to encouraging the company to make the best use of constrained network capacity and to link its outcomes more closely to the success of the whole industry, we introduced a volume incentive at Period Review 2000 (PR2000). This incentive currently takes the form of an addition to the RAB at

[13] The capacity charge is designed to recover Network Rail's costs through Schedule 8 of the track access contracts (the performance regime) resulting from additional train services operating on its network. See ORR, June 2006, *Periodic Review 2008: Structure of Track Access Charges and Station Long Term Charges*, paragraph 4.49 for further details.

the end of the control period, the scale of which is dependent on the growth in volume accommodated[14].

3.15 Nevertheless, the financial incentives on Network Rail to accommodate rises in volume and increased capacity are widely seen as being weak, due to the small magnitude of the additional revenues available in absolute terms, the deferred nature of the benefit[15], and the weakness of such corporate financial incentives generally (see below).

3.16 It has also been suggested that the discontinuity in compensation payments to operators faced by Network Rail, in the event that it makes incremental enhancements on the back of renewals, also acts as a significant disincentive to identify and exploit such opportunities. When renewing the network, Network Rail is liable to compensate operators for only their lost revenues under Schedule 4 (Possessions Regime) of track access contracts. However, where it enhances the network, it is liable to compensate operators for all of their costs[16]. This issue is currently being addressed as part of the reform of the Network Code[17].

3.17 Indeed, until recently, Network Rail has tended not to be proactive in identifying ways of increasing capacity on the existing network or undertaking incremental enhancements to the network. The company's lack of incentive to accommodate third party proposals for investments was also highlighted by our consultation on the investment framework last year[18].

3.18 However, we acknowledge that Network Rail is making efforts to change its decision making processes and move away from simply undertaking 'like for like' renewals. Indeed, the recently established Network Rail Discretionary

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14 Measured in terms of actual passenger miles and fare box revenue for franchised passenger operators, freight train miles and freight gross tonne miles using a pre-determined formula. See p247 of ACR2003 final conclusions for further details, available on our website at http://www.rail-reg.gov.uk/upload/pdf/184.pdf.

15 At the point of the ACR2003 final conclusions, it was envisaged that around a £104m (2002/03 prices) RAB addition would be available. The fact that the addition to the RAB will be made in 2009, without any logging up, means that the benefit of volume growth to Network Rail is delayed by up to five years.

16 This is because Part G (Network Change) of the Network Code is triggered.

17 For further details see http://www.rail-reg.gov.uk/server/show/nav.245.

18 Final conclusions on the policy framework for investments can be found on our website at http://www.rail-reg.gov.uk/upload/pdf/255.pdf.

Fund (NRDF)[19] provides funds for the company to undertake small incremental enhancements, and Network Rail has recently identified a long list of incremental enhancements in its 2006 Business Plan[20], the plans for some of which are well advanced.

Alignment in incentives between Network Rail and TOCs

3.19 TOCs are the most significant group of train operators in terms of network usage. Operators are also the industry parties closest to passengers/customers of the railway and face revenue exposure[21].

3.20 The key relationship between public sector funders of the railway and the train operators who deliver services to passengers is via franchise agreements. We recognise that the future development of the franchising regime is a matter for government. However, we consider that it is important to secure the alignment of incentives between the franchising regime and other industry relationships, and we shall continue to work with government to seek ways of better achieving this. We also believe that train operators have an important contribution to make to the development of this relationship.

3.21 The current design of franchise contracts has been developed over time, specifically to reduce the risks facing operators that are outside their control, improving value for money to government and taxpayers. Nevertheless, in our view, the current franchising regime weakens the relationship between franchisees and Network Rail in some respects, leading to at least a partial disconnect between them.

3.22 In particular, under 'clause 18.1' of their franchise contracts[22], TOCs are held financially neutral to changes in the level and structure of access charges resulting from periodic reviews (at least for core services[23] and subject to de

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19 The NRDF provides funding for minor enhancements (up to £5m) identified by Network Rail that are either linked to major renewals, or that have a positive whole-industry business case. Further details are provided in ORR, October 2005, *Policy Framework for Investments: Conclusions*, which is available at http://www.rail-reg.gov.uk/upload/pdf/255.pdf.

20 Network Rail's initial strategic business plan is available on its website (http://www.networkrail.co.uk).

21 Subject to cap and collar arrangements

22 Schedule 9.1 in the new model agreement

23 I.e. those contained in the Service Level Commitment (SLC). We understand that the recent franchises protect franchisees from changes in the level and structure of charges only for core services. While there are still a number of contracts in place that provide full protection, these

minimis arrangements). The understandable rationale for this is to remove a TOC's exposure to the risk of unanticipated significant changes in the level or structure of charges, over which it has little or no control, so increasing the value of franchise bids, as this risk is carried by government. However, it does mean that TOCs are not exposed to changes in Network Rail's cost efficiency or to changes in price signals transmitted through the charging structure during the life of a franchise. The implications of this are threefold:

- **Efficiency:** first, a TOC arguably has little direct financial interest in exerting pressure on Network Rail to improve its cost efficiency as the TOC is broadly financially indifferent to whether Network Rail operates, maintains and renews the network efficiently. Ideas that operators may have about where and how Network Rail could improve its cost efficiency, particularly at a local level, might therefore be lost. The evidence is supportive of this argument. While freight operators, who are exposed to Network Rail's cost base, engage heavily with both Network Rail and us in identifying areas where Network Rail could reduce costs, we see more limited proactive engagement from TOCs. However, our discussions with stakeholders suggest that TOCs do have clear ideas on where and how Network Rail might improve its scope efficiencies[24], particularly in relation to track and signalling renewals;

- **Performance:** second, while TOCs are largely insulated from Network Rail's cost efficiency, they are exposed to its operational performance. Consequently, the incentive on TOCs may currently be skewed towards a preference for lower performance risk largely irrespective of the associated cost. There is currently no mechanism to capture areas where a TOC would be prepared to accept increased performance risk in return for minimal compensation. While the TOC may be able to identify such areas readily, it is far more difficult for Network Rail to do so; and

- **Network usage:** third, the charges that a TOC faces (for core services at least) are effectively those prevailing at the time its franchise bid was made. Although funders always face the prevailing price signals and so make decisions about increments/decrements to services on the basis of

will elapse in time. We therefore focus on the issues surrounding the new structure of contracts.

24 Reductions in the volume of activity versus that envisaged at the time of the Periodic Review that do not compromise the long-term asset condition and serviceability of the network.

these, the price signals facing TOCs are not updated during the life of the franchise and so may differ to those faced by other industry participants. Our discussions with stakeholders suggest that this does impact on long-term planning decisions.

This has the potential to distort decisions on usage of the existing network. For example, changes in the structure of charges may incentivise an alteration to the pattern of services or the specification of rolling stock. Funders may detect such opportunities themselves and drive through change. However, to the extent that operators, who are closer to both customers and the day-to-day issues of running services and face at least financial incentives to innovate[25], TOCs may be better placed to identify and implement change.

As demand has altered and, in particular, as the understanding of Network Rail's cost structure has improved, the structure of charges is being increasingly honed. Indeed, the structure of charges for CP4 is expected to be more cost reflective than that for CP3 (e.g. a possible move to route based and avoidable cost charging)[26]; raising the importance of this loss of price signals to operators.

3.23 For the partnership between Network Rail and train operators to work most effectively, it is important that franchisees/operators have the ability to innovate, and that innovation is not unduly restricted by the franchising or regulatory regimes. We understand it is government policy to set a minimum specification for the level of services it wishes to buy under a franchise, but to allow innovation in the way the minimum specification is delivered, and in things not covered by it. We welcome and support this policy.

3.24 Clearly the appropriate extent of the minimum specification will vary according to the nature of the franchise and the market it faces. However, a number of franchisees have told us that the way some franchises have been specified (particularly the detailed timetable specification) means that significant constraints are placed on their ability to innovate, both at the franchise bidding stage and subsequently. Decisions on franchising policy and its

25 Subject to revenue sharing arrangements with Government specified in their franchise contracts.

26 See ORR, June 2006, *Periodic Review 2008: Structure of track access and station long-term charges*, which can be found on our website at http://www.rail-reg.gov.uk/upload/pdf/291.pdf.

implementation are for government, but ORR does believe that it is important that innovation is encouraged and not stifled by constraints placed on franchisees.

3.25 Further, the short-term, fixed length nature of franchise contracts – typically around seven years – may reduce the incentive to invest in self-financing enhancements, particularly in the final few years of a TOC's franchise term. This is because the payback period of the investment may be longer than the residual franchise life.

3.26 Our policy framework for investments[27] recognises the need for arrangements to remunerate any residual value to TOC-financed enhancements remaining at the end of a franchise agreement. At present, a TOC has to rely on government support for the residual value of the scheme at the end of its franchise period, which has to be sought on a case-by-case basis. DfT has indicated that it is often willing to provide such assurance, and to make the corresponding financial commitment through support for Network Rail's RAB, provided it is content that the investment represents long-term value for money.

3.27 However, this approach does leave some barriers to investment. In particular, operators have expressed concern that the criteria to assess whether an investment will be supported by Government are unclear. We consulted on possible solutions to this in our March document, and will continue to work with DfT to address the issue. The outcome of that process will be covered in our updated guidelines on implementation arrangements and processes for the investment framework, which is to be published towards the end of this year.

3.28 In summary, we believe that TOCs are either constrained or face weak financial incentives to:

- Engage with Network Rail in improving its cost efficiency or to work together with Network Rail to improve whole industry efficiency;

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27 See (i) ORR, October 2005, *Policy Framework for Investments: Conclusions,* which can be found on our website at http://www.rail-reg.gov.uk/upload/pdf/255.pdf and (ii) ORR, March 2006, *Policy framework for investments: Guidelines on implementation arrangements & processes*, which can be found at http://www.rail-reg.gov.uk/upload/pdf/277.pdf.

- Respond swiftly to changing circumstances and innovate with respect to their service provision; and
- Invest in self-financing enhancements that have a payback period that exceeds the residual length of their franchise agreements.

The efficacy of incentives facing Network Rail

3.29 Under the incentive-based regulatory framework that we have predominantly relied on to date, for each control period we establish the outputs that Network Rail must deliver, its allowed revenues, and a set of access charges. The basic concept behind this approach is that it provides strong financial incentives on Network Rail, i.e. strong corporate financial incentives, to meet and outperform the efficiency assumptions underlying its revenue allowance by allowing the company to retain the benefits of any outperformance at least until the end of the price control period. In the longer term, these efficiencies can be reflected in lower prices for customers/a lower funding requirement.

3.30 We have also implemented a series of other corporate financial incentive mechanisms, e.g. the volume incentive and the asset stewardship incentive, to incentivise Network Rail to meet targets in areas other than cost efficiency. These provide Network Rail with additional revenues, often via future additions to the RAB, for meeting/outperforming specified targets.

3.31 In addition to the above, which provide Network Rail with the opportunity to realise additional revenues for outperformance as well as making clear that it must fund any under performance, we are able to take enforcement action in the event that Network Rail breaches its licence obligations. Our tools here range from the ability to require recovery plans to be put in place, to the ability to impose financial penalties[28].

3.32 Finally, Network Rail's managers also face a range of incentives at a personal level - both financial and reputational. For example, the company is required under its licence to operate a MIP for its senior management, and our rigorous monitoring of Network Rail's performance is intended to heighten reputational incentives.

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28 Our enforcement policy is set out in ORR, April 2006, *Economic Enforcement Policy and Penalties Statement*, which is available on our website at http://www.rail-reg.gov.uk/upload/pdf/287.pdf.

The efficacy of financial incentives facing Network Rail at the corporate level

3.33 A fundamental tenet of this incentive based approach to regulation is that the interests of customers and funders are best met by making it in the financial interests of the regulated company's owners to meet, and indeed outperform, the targets specified by the regulator; i.e. that the profit motive and therefore corporate financial incentives 'work'.

The transmission mechanism for corporate financial incentives

3.34 Incentives act on the parties that bear the risks. How they respond to those incentives depends on (i) their rights and powers and (ii) their objectives and attitude to risk.

3.35 Oxera's paper to us sets out in detail the way in which corporate financial incentives are transmitted to a regulated company[29]. In brief, for a conventionally financed corporate entity[30], the incentives are transmitted by (i) shareholders, who maximise their value by encouraging outperformance of regulatory targets; and (ii) debt holders, who are keen to avoid under performance in order to protect their interest payments and principal.

3.36 Network Rail's unusual financial structure calls into question the efficacy of corporate financial incentives on the company. This is because the mechanisms by which the incentives are transmitted to Network Rail are arguably weakened by the company's current financial structure. If the effect is believed to be that corporate financial incentives have no effect, there may be a rationale for moving away from the current incentive based regulatory framework and towards an alternative regime, for example, rate of return regulation.

3.37 Below we set out the way in which Network Rail's current financial structure affects the allocation of risk between parties, and the implications of this for the transmission mechanism for corporate financial incentives, and the incentives that Network Rail therefore faces.

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29 Oxera, July 2006, Role of Incentives in the GB Rail Industry, is available on our website (www.rail-reg.gov.uk).

30 I.e. one that is financed through a mixture of debt and equity without the benefit of a third party guarantee

The impact of Network Rail's current financial structure

3.38 Two aspects of Network Rail's current financial structure are relevant here: (i) its CLG status and (ii) the existence of the 'financial indemnity mechanism' (FIM). Their impact and implications for incentives are considered separately.

CLG status

3.39 As a company limited by guarantee (CLG), Network Rail is a private organisation operating a commercial business owned by its members (rather than shareholders). Although members are appointed largely to perform the role of shareholders in General Meetings (e.g. appoint Board members, approve/reject major transactions and remuneration arrangements), there are crucial differences. In particular, members do not have any capital at risk. The owners of Network Rail are not therefore the people taking the risks or realising the rewards.

3.40 Nor do Network Rail's members necessarily have common goals and objectives. Effective challenge and control of the Board by members is therefore likely to occur only to the extent that members act in cohesive, focussed groups.

3.41 The market for corporate control is also removed.

3.42 It is usually the debt providers (where they do not benefit from a third party guarantee) that bear the risk in a CLG. Compared to shareholders, debt providers tend to be more interested in protecting against the downside, i.e. ensuring they receive their interest payments and principal, as they do not share in any outperformance. They tend only to have strong governance rights (through their loan agreements/legislation) in the event that the company breaches its loan covenants and/or goes into financial distress, in which event they are often able to take control of the company to recover their funds. As a result, they tend to be more risk averse, and investment is likely to be the first thing pared back in the event of financial under performance (in order to protect the company's cash flow and therefore its ability to service debt).

3.43 The implication of Network Rail's CLG status is to weaken the transmission mechanism for corporate financial incentives. While members and creditors may well monitor Network Rail's actions, their interest in financial performance is likely to be skewed towards limiting the downside; and, in any case, their incentives and ability to challenge the Board effectively are reduced. This implies that, while creditors in particular are likely to be keen to ensure that Network Rail does not underperform its regulatory assumptions and targets, they are less likely to be interested in encouraging outperformance, especially where this involves taking on risk.

The existence of the FIM

3.44 Network Rail raises its finance through a debt issuance programme (DIP) guaranteed by Government through the FIM. The FIM is a full faith and credit guarantee provided to Network Rail by Government, and is effectively unlimited in terms of both time and amount[31]. We believe that the implications are threefold:

- Additional business risk is transferred from Network Rail to Government. Network Rail's creditors are guaranteed in almost all circumstances to receive both their interest and principal regardless of the company's financial performance. This means that the incentive for creditors to perform their traditional monitoring role to avoid the downside is materially weakened. Government, as provider of the indemnity, should be and is interested in Network Rail's financial performance. Indeed, it has considerable rights to step in and/or place covenants on the company's managers if certain financial ratios are triggered. Importantly, however, these triggers only become relevant in extremis;

- The fact that the FIM is effectively uncapped at present means that Network Rail does not face a hard budget constraint; any overspend can be financed by further borrowing under the FIM. The only constraint faced in this respect is the possibility that government decides to undertake more wide-ranging reform on the back of serious under performance[32]. Subject to maintaining performance above a level that is likely to increase the probability of fundamental government intervention, Network Rail

[31] The amount of debt that can be raised under the FIM is currently capped at 108% of RAB, meaning that Network Rail's licence condition of maintaining a debt to RAB ratio of below 90% would be breached ahead of the cap binding. Such a breach would mean that the company would need to put in place a 'recovery plan' but it would not cut off its source of financing.

[32] An interim review reopener is triggered in the event that Network Rail's actual expenditure deviates from that envisaged at ACR2003 by 15% or more. However, there is no presumption that such a review will automatically result in a change to access charges.

arguably has little financial incentive at a corporate level to improve efficiency; and

- The FIM reduces Network Rail's financing costs significantly below its true cost of capital. This means that in assessing investment decisions – both discretionary and with respect to the methodology (in particular the capital intensity) for delivering required outputs – Network Rail has, at least in theory, the incentive to over invest and to adopt capital-intensive approaches, regardless of whether more cost effective approaches are available. This is particularly true where the rate of return allowed through the regulatory settlement is higher than the financing costs it faces.

  Although we have found no evidence to date to suggest that Network Rail is over investing or over capitalising, and its methodology for appraising investments appears robust, the financial incentives facing the company in this respect mean that we have had to take a 'hands on' approach to assessing the efficiency of Network Rail's investments.

3.45 The existence of the FIM therefore weakens the transmission mechanism further. Corporate financial incentives act only to incentivise Network Rail to avoid extreme under performance.

Conclusions on the current role of corporate financial incentives for Network Rail

3.46 There are clear and understandable reasons for Network Rail's current financial structure[33]. However, the effect of the financial structure is to weaken significantly the transmission mechanism for corporate financial incentives to the company. The impact of the transfer of additional business risk away from lenders as a result of the FIM is particularly marked. As a result, the primary role of corporate financial incentives and the concerns of providers of finance to Network Rail are currently more likely to be focussed on avoiding significant under performance than encouraging outperformance of regulatory assumptions and targets.

33 Providing government support for the significant amount of debt that Network Rail needs to raise – more than £17bn in the first two years of CP3 – reduced the company's financing costs, and therefore overall revenue requirement, materially.

Incentives on Network Rail's management

3.47 Incentives on management – both financial and reputational - are an important tool in any company in aligning the interests of management with those of the company's owners and, in the case of Network Rail, with those of passengers, freight customers and providers of public funds. In recognition of the weakened transmission mechanism for corporate financial incentives, we have placed particular emphasis on management incentives and intend to continue to do so going forward.

Financial incentives on management

3.48 Financial incentives work by linking an element of managers' remuneration to the achievement of specified targets. Typically there is a component linked to performance against short-term objectives and a component linked to that against long-term objectives. To be effective, the financial incentives need to be both well aligned with the objectives of owners and of sufficient value to provide a real incentive to management.

3.49 Under its Network Licence, we require Network Rail to operate a MIP for its senior management, the purpose of which is to ensure that senior management are incentivised to deliver and outperform the whole range of outputs required by customers and funders at an efficient cost. Network Rail determines the structure of the MIP, subject to our confirmation that it meets licence requirements and is not likely to lead to perverse incentives or undesirable outcomes.

3.50 The current MIP has two components:

- An annual bonus scheme providing target bonuses of up to 60% of base salary for senior managers based on Network Rail's performance against its internal targets; and
- A long-term incentive scheme providing bonuses based on average performance over the last three years under the annual scheme.

3.51 The MIP is then cascaded down through the rest of the organisation, with the proportion of remuneration that is performance-related declining with seniority.

3.52 Although there is scope for improving the design of the MIP, and also potentially its strength[34], it is widely seen as an effective tool for focussing management on the delivery of key outputs. Indeed, so far in CP3, management have generally outperformed the targets contained in their MIPs. Nevertheless, there is a question as to the extent to which even carefully designed schemes can compensate fully for effective financial incentives at the corporate level.

Reputational incentives on management

3.53 In addition to financial incentives, Network Rail's managers face reputational incentives to meet and outperform regulatory assumptions and targets, and to be seen to be leading the industry. This may be because of the kudos of driving/being associated with a successful company, or generating savings that can be invested elsewhere.

3.54 As noted above, we aim to leverage the reputational incentives on Network Rail's managers by undertaking robust and transparent monitoring of the company's performance against regulatory targets and assumptions.

3.55 However, there is likely to be a limit to the efficacy of reputational incentives alone in delivering our vision for Network Rail and the wider industry. This is because the high profile of the industry may mean that managers are more keen on avoiding 'trial by tabloid' than outperforming regulatory assumptions, potentially making them overly risk averse if reputational incentives are too strong and skewing their focus towards 'headline grabbing' outputs such as operational performance.

3.56 In addition, theory and practice show that, in general, managers of companies may have additional motivations that may be conflicting, e.g. they may want an 'easy life' and/or wish to 'empire build'.

Link to corporate financial incentives

3.57 Importantly, while both financial and reputational incentives rely on regulatory targets being established, they do not necessarily rely on Network Rail being rewarded/penalised at the corporate level for outperformance/under

[34] For example, Welsh Water, which as a CLG relies heavily on a similar form of management incentives to the MIP, provides bonuses of up to 80% of salary for outperforming regulatory targets. Oxera 2006, op. cit., chapter 3 provides further details and examples.

performance. In other words, it is entirely possible for there to be strong financial and reputational incentives on management without there being any at the corporate level.

3.58 However, to the extent that managers are motivated by the commercial success of Network Rail per se, and that linking the company's finances to performance raises the profile of the regulatory targets and assumptions, management incentives may be enhanced by the existence of corporate financial incentives.

The current role of incentives on Network Rail

3.59 The transmission mechanism for corporate financial incentives is clearly weakened by Network Rail's financial structure, and particularly the existence of the FIM. Nevertheless, we believe that they still have a role to play in encouraging Network Rail at least to meet its regulatory targets and in providing operational, financial and reputational incentives on management.

3.60 Incentives, both financial and reputational, on senior management are also strong, particularly in relation to the delivery of well-defined outputs.

3.61 However, Network Rail currently faces weak financial incentives to fulfil its wider industry role and focus on some of the 'softer' outputs, such as customer satisfaction.

Constraints identified under the existing framework

3.62 Although significant improvements have been achieved by the rail industry over the last few years, the constraints we have identified within the existing regulatory framework lead us to question the extent to which the framework is consistent with our objectives and can be relied upon to drive further improvements on a continuous and sustained basis.

3.63 In particular:

- We have identified key misalignments between the incentives facing Network Rail and the priorities and objectives of funders/customers, which mean that Network Rail may be less responsive to operator needs than it should be;

- The price signals facing TOCs are not updated through the life of their franchises, potentially reducing the efficiency of network usage and reducing their incentive to exert pressure on Network Rail to reduce costs;
- Constraints placed on franchisees mean that TOCs, who are the parties closest to users, have limited freedom to innovate in their service offer; and
- The existing incentive based regulatory framework, on which we predominantly rely to drive Network Rail's performance, is weakened by the company's current financial structure.

Implications for output specification

3.64 Network Rail's CP3 performance to date clearly indicates that the company is able to deliver, and indeed outperform, well-defined targets. Wider specification of outputs to cover Network Rail's array of roles could therefore be expected to deliver performance benefits, and help to move the industry some way to achieving our vision.

3.65 As set out in chapter 2, for CP4, it is therefore our intention to specify Network Rail's required outputs in terms of final outputs, as far as possible, and to widen the specification to cover all of Network Rail's functions.

3.66 However, we believe there is a limit to the extent to which outputs can be specified appropriately ex ante and from a central position that is removed from the customer, particularly in relation to 'softer' outputs.

Implications for the regulatory framework

3.67 This then raises the question as to how best the constraints identified can be addressed. In particular, are there incremental improvements that could be made to the existing regulatory framework that would resolve these issues, or is more fundamental change necessary?

3.68 We recognise that no fundamental changes to the industry structure or Network Rail's financial framework are envisaged. There is little appetite for such changes across the industry; the new structure and responsibilities that have resulted from the White Paper still need to bed down fully.

3.69 Nevertheless, there may be incremental amendments that could be made to the existing regulatory framework that could overcome the constraints we have identified and have a marked effect on the extent to which and speed at which the long-term vision for the industry could be achieved. We believe that such amendments would be consistent with making the structure set out in the White Paper work effectively, and where appropriate enable it to evolve.

3.70 The next two chapters explore whether there are:

- Improvements to the alignment of incentives along the value chain that could be made under the existing industry structure; and/or
- Methods for strengthening financial incentives facing Network Rail at the corporate level that could be expected to be beneficial.

4. Improving the alignment of incentives along the value chain

4.1 The complex structure of the GB rail industry brings challenges of coordinating production and investment decisions by the various players. As set out in chapter 3, we have identified a number of misalignments in incentives along the value chain, which may mean that total system costs are not minimised and that Network Rail's incentives are not aligned with the needs of final customers.

4.2 This leads to the question as to whether a revised regulatory strategy based on the existing industry structure could help secure better alignment of incentives along the value chain with the public interest.

4.3 This chapter sets out and discusses the options we have identified for addressing these misalignments within the existing industry structure and regulatory framework.

4.4 We recognise that as regulator, we have only certain levers to facilitate change, and that other parties would have to be persuaded in respect of the desirability of changes that are outside our control. In particular, we recognise that the design of the franchising regime is a matter for government. Nevertheless, we believe that there is merit in exploring possible relatively minor amendments to the regime that could better align incentives along the value chain and so improve the outcome for government and other stakeholders.

4.5 We purposely do not consider in this paper the relationship between Network Rail and other industry players, but would welcome views on whether there are any key misalignments in incentives that we should consider here.

Incentivising Network Rail to grow and develop the network

4.6 As set out in our recent consultation paper on the structure of charges[35], our intention is to maintain the current approach of establishing the variable track usage charge on the basis of the costs of wear and tear, i.e. short-run

35 Op. cit.

incremental cost. Consequently, as set out in chapter 3, the structure of access charges will not, in itself, provide incentives on Network Rail to grow and develop the network.

4.7 Nevertheless, provided that the outputs that Network Rail is required to deliver are specified appropriately, and that the disincentives to undertaking incremental enhancements on the back of renewals are removed (paragraph 3.16), it may be the case that no supplemental incentive is required to encourage Network Rail to deliver volume growth.

4.8 For instance, if for CP4 Network Rail is required to deliver certain levels of capacity and availability on the network and failure to do so would constitute a breach of its Network Licence, the company faces strong financial and reputational incentives to deliver. In determining how it will deliver the required capacity and availability, Network Rail would also have the incentive to optimise its approach, for example both in terms of solution (e.g. improved timetabling versus incremental enhancement) and in terms of the delivering party (e.g. infrastructure versus rolling stock solution), as the company benefits financially from any outperformance of its expenditure allowance.

4.9 However, as highlighted in chapter 2, our objective is to encourage Network Rail to be responsive to its customers and changes in market conditions rather than simply 'delivering the HLOSs', important though that is. It may therefore be desirable to incentivise Network Rail, subject to agreement by the specifiers of outputs, to under/over deliver its capacity target where actual demand turns out to be lower/higher than that envisaged in the HLOS, rather than leaving adjustments to be made in the output specification at subsequent periodic reviews; and to provide greater encouragement to move decisions on capacity closer to the customer.

4.10 To this end, there may be merit in explicitly linking Network Rail's revenues with those of passenger and freight operators, and/or passenger/gross freight tonne miles. This would have the effect of aligning Network Rail's incentives more closely with those of operators, and making them more responsive to their needs. In order not to place additional and unwarranted risk on the company, it may be appropriate only to provide Network Rail with upside potential on this score. A number of stakeholders expressed support for such an approach in principle at our May workshop.

4.11 There are several ways in which this could be done, including:

- Network Rail sharing directly in some measure of growth in operator revenues[36];
- By providing Network Rail with financial incentives (RAB based or otherwise) that are linked to measures of volume growth but do not involve direct revenue sharing, in a way similar to the current volume incentive;
- Encouraging Network Rail to enter into partnerships with operators to develop the optimal approach to providing network capacity, in a way similar to that currently taken with respect to performance. Such an approach could also involve Network Rail being more actively involved in working up proposals with franchise bidders (e.g. in relation to extended platforms versus selective door opening schemes);
- Incentivising Network Rail and its partners to seek innovative ways to accommodate demand growth, irrespective of the basis on which the capacity increase is funded at PR08. For instance, Network Rail could be encouraged to engage with its partners, such that increases in capacity for which Network Rail has been funded through its regulatory determination could be delivered by operators or another party if it subsequently emerged that this would be more efficient. Such an approach would enable parties to ‘fine tune’ the regulatory settlement and the delivery of the HLOS in light of emerging information; and/or
- Heightening the reputational incentives on Network Rail’s managers.

4.12 In designing any such mechanism, we would need to ensure that:

- The incentives on operators, who are closest to the end customer, are not inappropriately reduced; and
- The mechanism is clear, transparent and low burden.

4.13 We would welcome your views on any of the issues raised in this section and, in particular, on:

36 The interactions with the cap and collar arrangements in franchise agreements would need to be considered carefully.

- ***Whether a supplemental incentive is required for CP4 to encourage Network Rail to develop and grow the network on the basis that required outputs are specified appropriately, and the form that this might take;***

- ***Whether it is desirable to incentivise Network Rail to match capacity delivered to the level of demand that actually materialises, be that higher or lower than envisaged and, if so, how this might best be done; and***

- ***Whether it is desirable to incentivise Network Rail and its partners to seek innovative ways of accommodating increasing demand, irrespective of the basis on which the additional capacity is funded at PR08; and, if so, how this might best be done.***

Improving the alignment of incentives between Network Rail and TOCs

4.14 Recognising that the design of franchises is a matter for government, this section sets out options, within the existing structure, for addressing the three misalignments in incentives between franchised passenger train operators and Network Rail identified in chapter 3.

4.15 To inform our thinking, we commissioned NERA to undertake a study on the likely impact on franchise bids of amending the provisions in franchise contracts for holding operators financially neutral to changes in the level and structure of access charges resulting from periodic reviews[37]. Many of the issues covered here were also raised at our May stakeholder workshop, the outputs of which are reflected in our thinking.

Enhancing TOC pressure on Network Rail to improve efficiency

4.16 As discussed in chapter 3, an implication of the current franchising regime is that TOCs are largely insulated from changes in Network Rail's cost efficiency within the life of a franchise. They therefore face little direct financial incentive to exert pressure on Network Rail to improve either its expenditure decisions or its efficiency.

4.17 We have identified two main ways in which this might be addressed:

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[37] The report is available on our website (www.rail-reg.gov.uk).

- Introducing some form of benefit sharing mechanism, whereby Network Rail and train operators (passenger and freight) would share any Network Rail cost savings achieved as a result of operator engagement; or

- Amending franchise agreements so that TOCs are no longer held financially neutral to Network Rail's cost base; either by removing protection in its entirety, or by making changes to access charges subject to cap and collar arrangements. (These are discussed more fully below in relation to improving price signals facing TOCs.)

4.18 On the basis of NERA's analysis, we believe that exposing TOCs fully or via the cap and collar mechanism to changes in access charges would transfer an inappropriate amount of uncontrollable risk to franchisees, which would not provide value for money to government or taxpayers. We therefore believe that the most productive way forward would be to introduce a benefit sharing mechanism[38].

4.19 It is important that any such mechanism is targeted on areas where operators can bring genuine discipline to Network Rail's decision making.

4.20 In addition, in designing such a mechanism, there is a balance to be struck between a theoretically pure approach – whereby operators only benefit in relation to savings that they themselves are integral to achieving – and simplicity. The appropriate level of disaggregation will depend on the definition of savings to be shared. For instance, it would be reasonably straightforward to envisage an operator-specific scheme for sharing outperformance of Schedule 8 (Performance Regime)[39] targets, but more difficult with respect to overall cost efficiencies.

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38 Such an option would not require an amendment to 'clause 18.1', but would require either (i) an amendment to franchise agreements to ensure that government could not claw back TOC revenues stemming from such a mechanism under revenue sharing arrangements, or (ii) separate side-agreements between Network Rail and operators that would not fall under the access charges review process.

39 Schedule 8 of franchised passenger train operators' track access contracts provides an incentive on both Network Rail and train operators to seek to minimise lateness and cancellation of train services. It also enables train operators to be appropriately compensated for the effects on their revenue resulting from poor performance by Network Rail.

Improving scope efficiency

4.21 Operators may be well placed to identify potential scope efficiencies in Network Rail's maintenance and renewals activity, and to identify potential trade-offs in efficiency and performance. This is perhaps less true with respect to unit cost efficiency, though there may be valuable contributions operators could make.

4.22 One possibility, which we believe there may be merit in pursuing, would be for operators to share in any scope efficiencies achieved by Network Rail, subject to the company at least achieving its regulatory efficiency assumptions. While Network Rail outperformed its unit cost efficiency target for 2004/05 and appears to have done so again for 2005/06[40], it does not appear to have achieved in aggregate any scope efficiencies beyond those embedded in its expenditure allowance, at least for renewals[41].

4.23 The principles for measuring and monitoring Network Rail's scope efficiencies on a national basis are already in place[42]. Implementing such an approach would therefore be reasonably straightforward and, provided that we are able to monitor appropriate leading indicators, should not incentivise inappropriate reductions in scope. However, the definition of 'scope' would need to be made clear even at a micro level to avoid confusion between scope and unit cost efficiencies. In addition, the scheme would need to operate at a national level as it would not be practical to identify scope efficiencies on a regional or individual operator basis, providing some scope for operators to share in the savings generated by others.

4.24 Nevertheless, we believe that introducing a benefit sharing mechanism with respect to scope efficiencies has potential to deliver significant and tangible whole industry benefits.

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40 Our assessment of Network Rail's 2004/05 efficiency performance can be found in our *Annual Assessment of Network Rail 2004/05*, which can be downloaded from http://www.rail-reg.gov.uk/upload/pdf/252.pdf. Our assessment for 2005/06 will be set out in this year's Annual Assessment, to be published in September. Network Rail's full-year expenditure figures for 2005/06 are provided in our *Q4 Network Rail Monitor*, which is available at http://www.rail-reg.gov.uk/upload/pdf/nr_monitor_q4-gb.pdf.

41 We do not currently differentiate between scope and unit cost efficiency for maintenance expenditure.

42 See ORR, January 2006, *Monitoring and Treatment of Network Rail's Underspend and Efficiency: Policy Statement* (http://www.rail-reg.gov.uk/upload/pdf/273.pdf).

4.25 We would welcome your views on whether such a scheme in relation to scope efficiencies could be expected to drive material improvements in Network Rail's efficiency and on the acceptability of such a scheme to Network Rail and operators; and on how such a scheme could work in practice.

Improving performance

4.26 Operational performance is an area in which the industry has shown its ability to work well together to improve whole-industry outcomes. Arrangements are already in place to encourage operators to engage on this issue and to use their specialist knowledge and expertise to assist Network Rail in reducing its delays. In particular, the 'joint rail performance plan' (JRPP), which is established jointly by parties across the industry, sets out plans to drive continuous improvements in performance. This industry-wide plan, which relies on reputational incentives to engage parties, is then supported by a series of mechanisms. These include the 'joint performance improvement plans' (JPIPs) between Network Rail and TOCs, the requirements for which are set out in the Network Code (Part LA), and the 'national fleet reliability improvement programme' (NFRIP), which promotes best practice maintenance approaches for rolling stock.

4.27 These have worked well to date and public performance measure (PPM) has risen steadily since 2001[43]. Nevertheless, there is a question as to whether a direct financial incentive on parties to engage on this issue could drive further and sustained improvement.

4.28 One possibility for introducing a financial incentive in this area could be to establish a benefit sharing mechanism with respect to Network Rail's Schedule 8 bonuses.

4.29 The Schedule 8 performance regime is intended to compensate TOCs for deteriorations in Network Rail-caused delays. At present, operators are

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43 See ORR, July 2006, *National Rail Trends Yearbook 2005/06*, available at http://www.rail-reg.gov.uk/upload/pdf/294.pdf.

theoretically held financially neutral to such changes[44]. Network Rail, meanwhile, faces strong financial incentives to improve performance.

4.30 Providing operators with a share of Network Rail's Schedule 8 bonuses, either by reducing the payment rate or ex post, would provide operators with a direct financial incentive to engage. Our discussions with stakeholders suggest that many TOCs see benefit in such an approach.

4.31 We would welcome your views on whether additional incentives on operators to engage in reducing Network Rail-caused delays would be beneficial.

Encouraging TOCs to innovate in their delivery of services

4.32 Another implication of the current franchising regime identified in chapter 3 is the lack of incentives on and the ability of TOCs to optimise their offer, or to innovate in light of changing market conditions. This is a result of their insulation from changes in access charges, and the specification of services by Government.

4.33 We have identified a number of potential adjustments that could be made to franchise contracts that would sensitise TOCs to changes in the structure of access charges and therefore encourage them to respond to the signals provided. We have discussed these with DfT and at the wider stakeholder workshop in May.

4.34 The analysis carried out for us by NERA suggests that removing or even limiting TOCs' protection against changes in access prices is unlikely to provide value for money[45].

4.35 However, based on our discussions and NERA's analysis, we believe that there is considerable merit in amending the way in which TOCs are held financially neutral to changes in charges. As discussed in paragraph 3.22, at present this is done by effectively retaining the price list in place at the point of bidding for the duration of the franchise.

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44 It has been suggested that above a certain level of performance, fare box revenues no longer respond, while payments to Network Rail continue. If this is the case, it may be appropriate to cap such bonus payments.

45 NERA were asked, inter alia, to examine the implications for TOCs of (i) fully removing protection, (ii) limiting protection by making access charges subject to cap and collar arrangements, and (iii) maintaining financial neutrality but via fixed sum transfers.

4.36 Moving to a system whereby TOCs always face prevailing charges but are then compensated for the financial effects of any changes in that list since submitting their bid with respect to core services via fixed sum payments[46], would materially improve the alignment of TOCs' incentives with the public interest. This is because, while the level of risk facing TOCs with respect to charges would effectively be unchanged, they would face the 'correct' charges and therefore price signals at the margin. This would provide TOCs with incentives to optimise their offer in response to changes in the structure of charges, encouraging greater efficiency in the use of the network and innovation. The financial impact on government of such an amendment to franchises would be neutral; and transaction costs could be expected to be little changed versus current arrangements.

4.37 Such an approach is consistent with Government policy of taking a flexible approach to specifying the services required from franchisees, both in bidding documentation and subsequently. However, some franchisees have told us that, in practice, they face considerable constraints in this respect. Without flexibility, TOCs would have the incentive to respond to price signals but with limited ability to do so.

4.38 We recognise that there will always be constraints on TOCs' ability to amend its service offer, particularly mid-franchise period, due for example to capacity constraints on the network, and the long-term nature of rolling stock leases. Nevertheless, improving their incentives and ability to innovate, even if they only have ability to do so at the margin, in a way that does not undermine Government's other objectives, must provide value for money.

4.39 On the basis that such an amendment to the franchising regime does not increase the risks facing either government or TOCs, and arguably provides TOCs with scope for increasing revenues, it has been suggested to us that it may even be possible to introduce the fixed sum arrangements for pre-existing contracts as well as new contracts, subject, of course, to the agreement of franchisees.

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46 The fixed sum payment would reflect the difference in total charges faced under the new charging structure versus those faced under the old structure with respect to core services. Note, payments could be negative

4.40 We would welcome your views, and particularly funders and TOCs, on the merits of amending franchise agreements in this way, both with respect to future franchises and with respect to pre-existing contracts.

5. Improving financial incentives on Network Rail

5.1 Although there are clear justifications for Network Rail's current financial structure, it does mean that the incentive based regulatory framework provides weak financial incentives on the company to strive for continuous improvements in performance and efficiency. This has led us to introduce mechanisms to supplement the framework, such as the MIP licence condition, to ensure strong financial incentives on management, and high profile and extensive public reporting of Network Rail's performance to strengthen reputational incentives.

5.2 Although we believe that there remains a role for corporate financial incentives for Network Rail, and that it is therefore appropriate to retain the incentive-based regulatory framework, there is a question as to the extent to which and the pace at which improvement through partnership can be achieved on a sustained basis, under the existing financial framework.

5.3 Our CP4 determination with respect to the company's financial framework will have implications for both the incentives Network Rail faces and its flexibility to alter its financial structure going forward. We believe, it must therefore be consistent with our long-term vision and strategy.

5.4 The FIM was designed to provide support to a company in transition. Now that Network Rail has established a track record, regained control of its cost base and has a better understanding of its cost drivers, both we and Network Rail believe that a migration towards more conventional financing arrangements may be appropriate. We believe that such a change would bolster, through stronger corporate financial incentives, the company's management commitment to drive through continuous improvements in efficiency and performance, and to invest efficiently. However, we recognise that no fundamental changes to Network Rail's financial structure are envisaged.

5.5 Nevertheless, we and Network Rail believe that there may be considerable value in the company reducing its reliance on the FIM, as this would strengthen the transmission mechanism for corporate financial incentives and ultimately provide value for money. There are two ways in which this could be achieved without fundamentally altering Network Rail's financial structure:

- The company agreeing, either voluntarily or through a change to its Licence, not to fund its future expenditure through borrowings supported by the FIM; and/or
- Providing it with incentives to reduce its reliance on the FIM.

5.6 This section sets out these approaches. Our thinking in this area draws on the work conducted for us by CEPA[47].

Borrowing without support from the FIM

5.7 As noted in chapter 3, Network Rail currently raises all its debt under the FIM. Although this provides cost effective funding for the company, there are considerable adverse implications for the incentives it faces.

5.8 One option would be for changes to be made to Network Rail's support arrangements with DfT and/or its Licence to make the FIM unavailable to support new borrowings. The company's financial structure would remain unchanged in every other way.

5.9 Network Rail would have to seek any additional debt on a non-guaranteed basis from the capital market, thereby restoring a hard budget constraint for the company.

5.10 The introduction of risk capital would have the effect of strengthening the efficacy of corporate financial incentives by helping to restore the usual monitoring role of creditors, and the operational and financial discipline that brings. As providers of non-guaranteed debt would stand to lose both their principal and interest in the event that Network Rail's financial performance deteriorated sufficiently, such creditors would face strong incentives to monitor the company's financial performance and, specifically, its ability to service its debt. Credit rating agencies could also increasingly be expected to scrutinise Network Rail's performance as the volume of unsupported debt rises and a secondary market in that debt develops. Under performance of

[47] CEPA, July 2006, *The Role of Incentives in the GB Rail Industry*, is available on our website (www.rail-reg.gov.uk).

regulatory assumptions and targets could reduce Network Rail's cash flow, and so potentially affect its ability to raise capital at attractive rates.

5.11 As a result, Network Rail could be expected to face stronger incentives at least to meet its regulatory targets and assumptions. Incentives to outperform, however, would be largely unchanged versus the status quo. There is also a question as to whether the introduction of unsupported debt would encourage risk aversion, discouraging Network Rail from undertaking higher risk/higher reward investments, even where this is appropriate.

5.12 The way in which the non-guaranteed debt is structured, and therefore the risks that creditors hold, would have a profound effect on the strength of the incentive effects created by the risk capital. In summary, the more subordinated the debt and the greater Network Rail's ability to defer repayments, the stronger the incentive effects introduced. Clearly, the risks would require appropriate remuneration and matched governance rights. In the limit, were the non-guaranteed debt to be ranked above the FIM-backed debt, the incentive properties of capping the FIM would be largely removed and the cost of non-guaranteed debt could be expected to be close to the risk-free rate.

5.13 If the coupon payments on Network Rail's non-guaranteed debt could be linked to the company's performance vis-à-vis regulatory output targets, the monitoring role of creditors could be harnessed to monitor Network Rail's wider performance (rather than just its financial performance). However, our view is that this would be unlikely to provide value for money, as it would be difficult for the market to price such a security appropriately.

5.14 Agreeing a reducing profile for the level of outstanding guaranteed debt, requiring Network Rail to refinance part of its existing guaranteed debt with non-guaranteed debt, would gradually reduce government's exposure under the FIM, strengthening financial incentives on the company, and moving Network Rail back towards the position of a standalone CLG.

5.15 Our discussions with stakeholders to date suggest that, subject to a full value for money assessment, there is support for amending the FIM arrangements so that in future Network Rail meets its additional borrowing requirements through risk capital.

Charging a fully-reflective FIM fee

5.16 An alternative, or potentially complementary, approach to encourage the formation of risk capital could be for Network Rail to be charged a fee for the FIM that fully reflects the risk transferred to government as a result of the company's financial structure. This approach is set out in CEPA's paper[48].

5.17 As the FIM transfers additional risk from Network Rail to government, the value of the FIM is arguably the difference between the company's risk-adjusted cost of capital and the cost of guaranteed debt multiplied by the RAB (net of any non-guaranteed debt outstanding). Raising non-guaranteed debt rather than guaranteed debt would therefore reduce the FIM fee due and, to the extent that debt could be raised at a rate below the risk-adjusted cost of capital, would result in a financial gain to Network Rail.

5.18 There are various ways in which this fee could be structured, each of which would have differing implications both for the degree of budgetary uncertainty for government and, potentially, the strength of the incentives Network Rail faces.

5.19 Such an approach could be expected to enhance the transmission mechanism for corporate financial incentives as:

- Network Rail would face incentives (and potentially very strong incentives) to reduce its reliance on the FIM. This is because it is likely to be able to raise unsupported debt at a cost below the full risk-adjusted cost of capital, while it would effectively pay the full risk-adjusted cost of capital for FIM-backed debt; and any difference between actual and assumed financing costs would be retained by the company. Consequently, Network Rail would be encouraged to move away from government support, therefore restoring the monitoring role of creditors and the discipline that this would bring;

- Network Rail's marginal cost of capital would be its full risk-adjusted cost of capital, at least in theory improving the efficiency of investment decisions. While we would expect Network Rail to continue to use its existing investment appraisal approach, including assessing socially beneficial schemes on a 3.5% discount rate basis, this should strengthen

[48] Op. cit.

the efficiency of investment decisions for discretionary investments, and should mean that the company faces appropriate incentives in determining opex-capex trade-offs in delivering its required outputs; and

This is also of particular importance if competition for the delivery of enhancements is to be achieved. If Network Rail faces an actual cost of capital below its full risk-adjusted cost of capital, the playing field will not be level;

- The true level of subsidy to the industry would be transparent, enabling clear decisions to be made as to where and the extent to which subsidies should be targeted.

5.20 Unlike the restricting the FIM approach, however, Network Rail would not be required to raise risk capital; although it would face financial incentives to do so. In addition, it would not face a hard budget constraint as any cost overruns could continue to be financed under the FIM;.

5.21 Perhaps more significantly, this approach would also have implications for government in terms of budgetary certainty. To the extent that the fee that it receives for the FIM is not guaranteed, both because Network Rail has at least some discretion over the payment of a part of it and because the amount of unsupported debt raised would affect the fee due, government's receipts would be uncertain. Introducing arrangements to share any surpluses Network Rail accrues as a result of raising unsupported debt could help to mitigate these concerns. We are undertaking work to understand these issues further.

Restricting the FIM and charging a fully-reflective FIM fee

5.22 There is, of course, no reason why the two approaches set out above – restricting the use of the FIM and charging a fully reflective FIM fee – could not be combined. Indeed, we believe that such an option would mean, theoretically at least, that Network Rail faces stronger incentives than implementing either of the two options in isolation, and would result in better value for money, at least in the longer term.

5.23 This is because the hard budget constraint and early need to raise risk capital provided by the restricting the use of the FIM would be enhanced by the potential multi-faceted benefits of the FIM fee approach (as set out in paragraph 5.19). As a result, Network Rail could be expected to move away from government support more quickly and therefore drive out inefficiencies on a sustained basis more rapidly, as the monitoring role of creditors would be restored more quickly and to a greater extent.

The implications for Network Rail's allowed return

5.24 The methodologies for improving the transmission mechanism for corporate financial incentives set out above have key implications for the way in which Network Rail's allowed return is determined.

5.25 Our *Initial Assessment* sets out the two broad approaches to determining the allowed return and their relative merits[49]:

- The conventional WACC-based approach, whereby allowed revenues are set to reflect an allowed return equal to the company's risk-adjusted cost of capital[50]; and

- The cash flow approach, whereby the company is provided with sufficient revenues to cover its debt service and allow an appropriate surplus.

Introducing a FIM fee and the implications for the allowed return

5.26 If a fully reflective fee for the FIM were to be implemented, either alone or in conjunction with a restriction on the use of the FIM, Network Rail would need to be provided with an allowed return that reflects its risk-adjusted cost of capital, i.e. a WACC-based approach would be necessary.

Restricting the FIM and the implications for the allowed return

5.27 If the use of the FIM were restricted without a FIM fee being introduced, this would not be the case. Indeed, we do not believe that it would be appropriate to restrict the FIM and then provide Network Rail with a WACC-based return without imposing a FIM fee in parallel. This is primarily because Network Rail's financing costs would be below its allowed return, allowing it to build up large surpluses in relation to its financing activities. This would both dilute the hard budget constraint created by the restriction of the FIM, and over

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49 See Annex E of our Initial Assessment, op. cit.

50 Note, this is independent of the company's financing arrangements and instead depends on the risks associated with its cash flows.

compensate Network Rail. Incentives with respect to investment would also be distorted (see paragraph 3.44).

5.28 A cash flow approach would therefore be more appropriate, whereby Network Rail would be provided with a rate of return just sufficient to enable it to raise the debt it is expected to require in CP4. This may imply a higher or lower allowed return than under a WACC-based approach depending on the level of unsupported debt required to be raised and the structure of that debt, but preliminary calculations suggest it is likely to be lower.

5.29 We understand that Network Rail is seeking advice to understand exactly how the structure of the debt might be expected to impact required revenues under a cash flow approach. However, at a high level, the more subordinated the debt and the lower the credit quality, the higher the allowed revenues required under the cash flow approach.

Determining the approach for CP4

5.30 Of the three approaches set out above - (i) restricting the use of the FIM, (ii) introducing a fully reflective FIM fee, and (iii) the two in combination – we believe that all would act to improve the incentives facing Network Rail versus the status quo.

5.31 However, there are pros and cons associated with each.

The implications for incentives

5.32 In our view, option (iii) would provide better incentives on Network Rail than either of the other two approaches:

- Both options (i) and (iii) would provide a hard budget constraint on Network Rail, while option (ii) would not as Network Rail would not have to raise unsupported debt;

- To the extent that corporate financial incentives ‘work’, options (ii) and (iii) would provide (potentially strong) financial incentives on the company to reduce reliance on the FIM; potentially increasing the speed at which Network Rail could be expected to move away from reliance on government support. This would not be the case under option (i). Indeed, if a cash flow approach is taken to determining the allowed return, Network

Rail may not be in a financial position to reduce its FIM-backed debt beyond the extent to which it is required to do so; and

- Under options (ii) and (iii) Network Rail's allowed return would be its risk-adjusted cost of capital, encouraging efficient investment decisions.

  Under option (i), however, the allowed return would likely be below its risk-adjusted cost of capital. This could mean that in assessing investment decisions – both discretionary and with respect to the methodology for delivering the HLOS – Network Rail would have the incentive to adopt capital-intensive approaches regardless of whether more cost effective approaches are available. On the other hand, it could be argued that Network Rail would be disincentivised from undertaking riskier projects, even where these are justified, as the return available would be insufficient. The precise direction of the distortion under option (i) is therefore unclear but, either way, the lower the implied rate of return necessary and therefore the greater the divergence from the WACC, the greater the distortion is likely to be; and

- The degree of subsidy to the industry would be transparent under options (ii) and (iii). Under option (i), however, the degree of subsidy would tend to be understated, as a cost of capital below Network Rail's risk-adjusted cost of capital would be embedded in its allowed revenues.

Implications for government funding and Network Rail's surplus

5.33 Our *Initial Assessment*, published in December 2005, sets out an illustrative range for Network Rail's allowed surplus in relation to financing (i.e. the revenues allowed with respect to financing net of actual financing costs) of between £200m and £500m per annum[51].

5.34 All three options are consistent with the range provided in December, assuming that the FIM fee flows back to government and/or is used to fund

[51] Op. cit. paragraph 3.11. The lower end of this range was based on Network Rail continuing to raise all of its capital under the FIM and being provided with a small financial surplus to enable it to manage risk effectively. The upper end of the range was based on the company raising a tranche of risk capital.

investment to deliver the HLOS; with options (ii) and (iii) resulting in a slightly lower allowed surplus on this basis[52].

5.35 However, the implications for allowed revenues in relation to financing may be very different[53]. Although all could result in the same level of allowed revenues net of the FIM fee, and indeed the level under option (iii) would be lower on this basis to the extent that additional efficiencies are achieved, 'headline' allowed revenues (i.e. gross of the FIM fee) could be significantly higher, at least initially, under options (ii) and (iii).

5.36 In addition, options (ii) and (iii) are likely to create a degree of budgetary uncertainty for Government to the extent that the cash flows it receives under the FIM fee are not guaranteed and would vary with the amount of unsupported debt Network Rail raises. We are examining ways in which appropriate structuring of the fee might reduce this.

Out initial view

5.37 We are inclined to believe that restricting the use of the FIM, introducing a fully-reflective FIM fee and allowing Network Rail a WACC-based return would have better incentive properties than either of options (i) and (ii), at least in the medium to longer term. This is because the incentives on Network Rail to outperform its regulatory efficiency assumptions, invest efficiently and move away from government support would all be superior, and the company would face a hard budget constraint, which could all be expected to result in a lower cost railway in the longer term.

5.38 However, there may be a balance to be struck between potential government budgetary implications and hence the certainty with which outputs can be funded in the short-term, i.e. CP4, with achieving better value for money in the longer term. The priorities here will need to be set by government. However, until we have developed the analysis further and taken advice on the implications of various approaches to structuring both the debt and the FIM fee, the extent of any trade-off is unclear.

52 Network Rail develops criteria for the use of such surpluses in conjunction with DfT, Transport Scotland and us.

53 Depending on the level of Network Rail's risk adjusted cost of capital and the debt service ratio required to raise unsupported debt.

5.39 Our initial analysis suggests that there may be ways in which both the funding requirement and budgetary uncertainty can be reduced, making the approach value for money in CP4, even if only very modest improvements in incentives are seen.

5.40 At this stage, subject to an assessment of the practicability of the approach and a value for money assessment, we are minded (as we believe are Network Rail and DfT) to examine further restricting Network Rail's use of the FIM from CP4 so that the company meets future borrowing requirements through unsupported risk capital. This could be done either by DfT and Network Rail amending the arrangements that govern use of the FIM or via Network Rail's licence.

5.41 A decision as to whether, in addition, imposing a fully reflective FIM fee would be appropriate will need to be made on a comprehensive assessment of the trade off between achieving value for money in the short run and in the long run, and the budgetary certainty that could be provided to government. We therefore intend to undertake further analysis to understand the issues further.

5.42 We would welcome your views on any aspect of this chapter and, in particular:

- ***Whether you agree that restricting the use of the FIM with or without a FIM fee would improve incentives on Network Rail and provide value for money to funders;***
- ***Whether you consider that restricting the use of the FIM without a FIM fee might make Network Rail more risk averse as a result of the monitoring role of creditors and their concern with protecting against the downside; and***
- ***The extent to which the identified incentive properties of the FIM fee could be expected to influence Network Rail's behaviour in reality.***

6. Further issues for consultation

6.1 This consultation document focuses only on the high level issues surrounding the incentives framework, which we intend to conclude on in February 2007.

6.2 However, in order to provide ministers with as complete advice as possible in February on the likely parameters of Network Rail's required revenue allowance, we also intend to conclude on a number of technical issues regarding the incentive framework, and Network Rail's financial framework. We intend to consult on these in a short series of regulatory letters to be published in September, and to set out conclusions in our February document.

6.3 The areas that we intend to cover in these letters include:

- **The approach to inflation**: DfT indicated in their response to our December *Initial Assessment*[54] that they would prefer Network Rail's revenue allowance for CP4 to be set in nominal terms. However, conventionally regulators have set real price controls;
- **The approach to amortisation**: for ACR2003, Network Rail's amortisation allowance was broadly based on the level of expenditure required to maintain the network in a steady state over time. This approach is described in our *Initial Assessment* document. The responses to that document are generally supportive of adopting this approach again for PR08; and
- **The approach to risk and uncertainty**: we will discuss and consult on the appropriate high-level approach to risk and uncertainty facing Network Rail in a regulatory letter to be published in September. This letter will cover the general approach to this issue, for example, the length of the control period and the potential use of reopening provisions, rather than the detailed mechanics such as the trigger level for reopeners.

6.4 The detailed issues and options relating to other financial issues, e.g. the treatment of taxation and pensions, will be discussed in a regulatory letter to

54 Responses to our *Initial Assessment* can be found on our website at http://www.rail-reg.gov.uk/server/show/ConWebDoc.7597.

be published in August 2007. We will then conclude on these in a regulatory letter to be published in January 2008.

6.5 We will consult on approaches to the single till in a regulatory letter to be published in early 2007, with conclusions being published in a further letter by the end of the year.

Annex A: Periodic Review timetable

1. Table A1 shows how the milestones in the reviews of the incentives framework and Network Rail's financial framework fit into the 2008 Period Review (PR08) timetable.

Table A1: Milestones for the reviews of the incentive framework and Network Rail's financial framework in PR08 timetable

Date	Milestone
July 2006	We publish consultation on high-level issues surrounding the incentives framework
September 2006	We publish regulatory letters consulting on our approaches for PR08 to the treatment of inflation and amortisation, and the treatment of risk and uncertainty facing Network Rail
January/ February 2007	We publish a regulatory letter consulting on approaches to the single till
February 2007	We publish conclusions on the high-level incentives framework for Network Rail and the wider industry
February 2007	We publish 'Advice to Ministers and Framework for Setting Access Charges', including the *Access Charges Review Notice*[55]
June – July 2007	Secretary of State and Scottish ministers issue high level output specifications (HLOSs) and statements of public funds available (SoFAs)
August 2007	We publish a regulatory letter consulting on other issues surrounding Network Rail's financial framework, including the treatment of taxation and pensions.
October 2007	Network Rail publishes its strategic business plan (SBP)
November/ December 2007	We publish a regulatory letter concluding on our approach to the single till
January 2008	We publish a regulatory letter concluding on the other issues surrounding the financial framework
February 2008	We publish our assessment of Network Rail's SBP
April 2008	Network Rail provide revisions to the SBP as necessary
June 2008	We publish draft determinations for control period 4 (CP4), including conclusions on technical aspects of the incentives

[55] Schedule 4A is expected to be commenced by the Department for Transport (DfT) during 2006. Under these provisions, the HLOS must be provided to ORR at a date specified by ORR in the *Access Charges Review Notice*, with this date being not less than three months after publication of the notice.

Date	Milestone
	framework.
October 2008	We publish final determinations for CP4
December 2008	Review notice is served initiating implementation of PR08

Annex B: Specific objectives for PR08

1. Our specific objectives for the Periodic Review 2008 (PR08) are:

- To set Network Rail's access charges such that they are:
  - So far as practicable, cost reflective and therefore provide good signals to users and funders; and
  - Neither higher nor lower than they need to be to enable the high-level outputs to be delivered on an efficient and sustainable basis, and to provide value for money.
- To set Network Rail's outputs:
  - With improved definition (e.g. capability, availability, reliability), to focus Network Rail planning/management, and to facilitate measurement of outcomes;
  - So that they are targeted on what users and funders want from the railway and, wherever practicable, are based on final outputs rather than inputs; and
  - On a forward-looking basis, with a trajectory set in the short, medium and long term, to an appropriate level of disaggregation that challenges Network Rail to better understand the drivers of good performance in all time frames.
- To improve incentives, to:
  - Deliver continuous improvement in operations and maintenance and renewal/enhancement procurement efficiency;
  - Optimise cost/quality trade-offs, based on evidence of what railway users value;
  - Balance outputs in different time frames (e.g. performance in the short and longer term);

- Challenge Network Rail to improve its knowledge/understanding of assets, especially its ability to predict the impact of changing patterns of usage and ways of working to optimise the extent/cost of accommodating forecast/emerging demand;
- Develop Network Rail's planning framework and asset knowledge; and
- Promote continuous improvement in health and safety.