Realising the Potential of GB Rail

Report of the Rail Value for Money Study

Summary Report

May 2011

Realising the Potential of GB Rail

Report of the Rail Value for Money Study

Summary Report

May 2011

Although this report was commissioned jointly by the Department for Transport (DfT) and the Office of Rail Regulation (ORR), the findings and recommendations are those of the authors and do not necessarily represent the views of the DfT and the ORR. While the DfT and the ORR have made all reasonable efforts to ensure the information in this document is accurate, the DfT and the ORR do not guarantee the accuracy, completeness or usefulness of that information; and cannot accept liability for any loss or damages of any kind resulting from reliance on the information or guidance this document contains.

Department for Transport
Great Minster House
76 Marsham Street
London SW1P 4DR
Telephone 0300 330 3000

Office of Rail Regulation
1 Kemble Street
London
WC2B 4AN
Telephone: 020 7282 2000

Website www.dft.gov.uk/rail-value-for-money

ISBN 978 1 84864 123 5

Contents

Foreword by Sir Roy McNulty

In my Interim Submission to the Secretary of State, published last December, I set out a preliminary assessment of the costs of GB rail, the reasons why those costs appeared to be higher than they should be, and a preliminary estimate of cost savings which might be possible. The Study has now completed its work and this report presents my recommendations for improved efficiency and value for money.

The Study has taken place at time when GB rail can demonstrate many achievements – in terms of growth in passenger and freight markets, continued improvement in safety, increasing customer satisfaction, improved operational performance, and significant investment. In many ways, the GB rail structure established in the 1990s has delivered good results.

The Study has also taken place at a time when GB rail has the opportunity for substantial growth. Increased demand for travel, as well as the imperative to adopt more sustainable methods for the movement of passengers and freight, offer the prospect of doubling the current level of traffic by the year 2030. Few other industries have sound prospects of growth on this scale, and it offers real opportunities for everyone involved in the industry.

However, there is widespread recognition that the industry has problems in terms of efficiency and costs. Unit costs per passenger kilometre have not improved since the mid 1990s. The Study's initial "should cost" analysis, against the 2008/09 baseline used in the Study, suggested that GB rail's costs ought to be 20-30% lower. Further benchmarking has identified an efficiency gap of 40% against four European comparators. Some of that 40% gap may be systemic, and therefore cannot be eliminated fully, but I believe that the industry should be aiming to achieve a 30% reduction in unit costs (i.e. costs per passenger-km) by 2018/19. Only by doing this can the industry get to a position where it is giving a fair deal to passengers and taxpayers – at present, both groups are paying at least 30% more than their counterparts in other European countries, which not only places an unjustified burden on passengers and taxpayers, but also disadvantages UK competitiveness in the wider sense.

The causes of GB rail's excessively high costs are many and complex. The Study was asked to examine "barriers to efficiency" and we have identified that among the principal barriers are fragmentation of structures and interfaces, the ways in which the roles of Government and industry have evolved, ineffective and misaligned incentives, a franchising system that does not encourage cost reduction sufficiently, management approaches that fall short of best-practice in a number of areas that are key cost drivers, and a railway culture which is not conducive to the partnership and continuous improvement approaches required for effective cost reduction.

I would like to emphasise my view that the long list of barriers the Study has identified should not become the basis of a "blame game". The industry will not benefit from an inquest into how things evolved in the past or who was most to blame. What is much more important is that everyone's time and energy is now applied to agreeing and implementing solutions to the problems that have been evident for too long.

Another point I wish to emphasise is that there is no simple solution – no "silver bullet". Achieving a 30% cost reduction will require a very substantial programme of change, addressing each and every one of the barriers identified in this report, and doing so in ways that do not prevent achievement of other performance objectives.

In considering my recommendations, I have been clear that there were two roads I would not go down. Firstly, the Study's Terms of Reference made clear that it was "to identify options for improving value for money … **while continuing to expand network capacity as necessary**". Accordingly, I have not examined possible cuts to the rail network, and the Study's focus has been solely on ways of improving efficiency and value for money from the existing network. Secondly, I have not considered solving the railway's financial problems by increasing the overall level of fares. As my report makes clear, GB rail fares are already too high, and the whole thrust of the Study's recommendations is to reduce costs and thus reduce the pressures that have led to fares being at that level.

I see the solutions as being in three parts.

Changes to create an enabling environment

These include getting greater clarity on rail policy, objectives and strategies, stronger and more cohesive industry leadership, changes to structures and interfaces to improve the ways in which rail organisations and people work together, incentives that are more effective and better aligned, a review of fares policy and structures, and greater clarity as to what Government subsidy is buying

Changes which deliver the major savings

These focus principally on reaching best-practice in asset management, programme and project management, supply chain management, standards and technology, HR management, and pursuing initiatives in the areas of capacity utilisation, information systems, and new approaches to enable lower-cost regional railways.

Effective approaches to drive implementation

Key to this will be, on the basis of this report, developing an implementation plan with the involvement and commitment of all concerned. I recommend that, at least initially, there should be a small independent Change Team working closely with the Department for Transport (DfT), the Office of Rail Regulation (ORR), a new industry leadership group – the Rail Delivery Group – and with a direct reporting line to the Secretary of State for Transport.

I believe that the recommendations in this report, if fully implemented, could achieve the target of a 30% unit cost reduction by 2018/19 based on current estimates of future demand. I recognise fully that delivering such a massive cost reduction will be an enormous challenge to everyone in an industry whose unit costs have shown little or no reduction over the last 15 years. And I recognise that some people will argue that the changes required to reduce industry costs are unnecessary, or unacceptable or shouldn't apply to them.

Yet the pressures which make change and the achievement of this cost reduction essential are obvious. The severe constraints on Governments' finances will continue for some time, and there will be intense financial scrutiny as franchises come for renewal and on the periodic reviews of Network Rail. There is a need for the industry to earn its "licence to grow", so that the opportunities that lie ahead can be exploited, and above all there is a clear imperative to give taxpayers and passengers a better deal.

I believe that there can be a great future for GB rail – a future of growth, continued improvement in safety and a better deal for passengers and freight customers. There can also be a vision longer-term of a future for GB rail in which InterCity and London and the South East services can operate with little or no subsidy, and in which the subsidy for Regional services, while still continuing, is better controlled and much more precisely targeted. I believe that the enabling environment I have described can be put in place, levels of best-practice management can be achieved, and that implementation can be made to happen.

I have been encouraged that so many of the people I have met recognise the barriers – I have not met anybody who argued that costs cannot be reduced. I am encouraged also by new approaches that have emerged during the course of the Study, both from Network Rail and from the Train Operating Companies. I sense that many people in the industry are ready for change. What is needed now is the vision, leadership and energy to make the changes happen.

Success in this endeavour will clear the path to growth and allow the railway industry to give passengers and taxpayers the fair deal they deserve. The ways in which I believe this can be done are set out in this report at two levels:

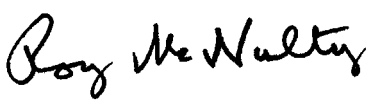
- this Summary Report, available in print, consisting of Foreword, Executive Summary, and Level One Report setting out the principal findings and recommendations; and
- a Detailed report (Level Two) containing detailed analysis and recommendations from each of the Study's workstreams, and available on-line at www.dft.gov.uk/rail-value-for-money.

In addition, the Study will make available, on the DfT website, the consultants' reports which the Study has used in developing its analysis and recommendations.

I am indebted to the many people who have supported and helped in carrying out this Study. I want to thank each of them for the help they have given me. In particular, I would like to thank Ian Dobbs, Deputy Chairman of the Study, whose deep knowledge of the industry in Great Britain and elsewhere has been invaluable, as has been the experience of our Advisory Board (John Armitt, Chris Bolt, Andrew Haines, John Nelson and Sir David Rowlands), whose wise advice has helped me position my thoughts much better than would otherwise have been the case. Last, but not least, I want to thank all of the members of the Study team. Their efforts, together with the input of very many people from the industry and from the DfT and the ORR, the Study's sponsors, have been fundamental to the project.

What appears in the pages that follow are of course my own conclusions. I do not see them as the "last word". Indeed, I hope that they will be the "first word" in a process whereby the GB rail industry, together with Government and the ORR, develops and commits to a programme of changes, building on the professionalism and the obvious dedication of those who work in the railway. There is a clear opportunity to create in GB one of the most efficient rail systems in the world – a system which can deliver outstanding value to its customers.

I wish all concerned every success in that endeavour.



Sir Roy McNulty

Executive summary

1 In its Interim Submission to the Secretary of State, published last December, the Rail Value for Money Study set out its preliminary assessment of the costs of GB rail, the reasons why it considered that those costs were higher than they should be, and a preliminary estimate of cost savings which might be possible. The Study team has now completed its work and is reporting its findings and its recommendations for improved efficiency and value for money.

Context

2 The Study has taken place at a time when GB rail can demonstrate many achievements – in terms of growth in passenger and freight markets, continued improvement in safety, increasing customer satisfaction, improved operational performance and significant investment. Particularly worthy of note is the way in which the industry has, since privatisation, reversed a 50-year trend of reduction in passenger traffic.

However, despite its many successes, there is a widespread recognition that the GB rail industry still has major problems in terms of efficiency and costs.

3 This Study has not examined possible cuts to the rail network. The Terms of Reference made it very clear that the aim of this Study was "to identify options for improving value for money to passengers and taxpayers **while continuing to expand capacity as necessary**". Accordingly, the entire focus of this Study has been on ways of improving efficiency and value for money on the basis of the existing network, and it seems clear that there is considerable scope for such improvement. As the Study has said on numerous occasions over the past year, this is Plan A. Only if all concerned failed to deliver the improvements which the Study judges to be both necessary and possible, would consideration conceivably have to be given to a Plan B – a smaller railway.

The efficiency gap

4 The Study has confirmed the dimensions of the efficiency gap. It estimated initially that GB rail costs should be 20–30% lower than they were in 2008/09, and commissioned a detailed benchmarking exercise comparing GB rail with railways in four other countries – France, the Netherlands, Sweden and Switzerland. Although benchmarking is seldom an exact science, the clear indication from that exercise is that GB rail costs would need to be reduced by around 40% to match those comparators. As has been indicated by previous benchmarking done by the Office of Rail Regulation (ORR), and notwithstanding the fact that Network Rail (NR) delivered a 30% cost reduction during Control Period 3, NR's higher costs are still a significant reason for this gap. However, Train Operating Company (TOC) and Rolling Stock costs also contribute to GB rail's higher costs, primarily because of the lower level of train utilisation here, i.e. fewer passenger-kilometres generated per train-kilometre.

5 Because all the reasons for the lower levels of train utilisation are not fully understood, and because some of these may be systemic and not capable of elimination, the Study considers that, for practical purposes, the target at present should be to achieve a 30% reduction from

the 2008/09 level of industry unit costs by 2018/19. If it eventually proves that the actual potential for cost reduction is slightly higher or lower than that target, plans can be fine tuned at that time. At this stage, the priority is that all concerned recognise that the industry faces a major challenge to reduce its costs, and must begin to plan how best to meet that challenge.

6 What is also apparent from this benchmarking exercise is that a result of GB rail's costs being so high is that passengers and taxpayers are paying more than their counterparts in those other countries. Passenger fares per passenger-kilometre on average are around 30% higher in GB and, although it is difficult to compare Government funding streams in different countries, it seems likely that the UK taxpayer is also paying at least 30% more than taxpayers elsewhere.

Barriers to efficiency

7 The causes of GB rail's higher costs are many and complex. In most of the workstreams within the Study, barriers to efficiency and value for money have been identified. The principal barriers are summarised below.

8 **The Roles of Government and industry**. Within the current framework, much of the responsibility for costs is seen to rest with Government, and industry has not taken the responsibility which it needs to exercise for driving costs down. This may well be due to the extent to which Government is involved in detail in the industry's affairs, and yet is not providing sufficient clarity about what Government policy is, how different strands of policy fit together, or how the different levels of policy, objectives strategies and implementation are linked.

9 **Fragmentation** – by which is meant the fact that the structures within an industry which has many players, and the interfaces between those players, have not worked well in terms of securing co-operative effort at operational interfaces or active engagement in cross-industry activities which need to be undertaken for the common good. One of the principal barriers, if not the principal barrier, is the lack of an effective supply chain that starts with the customer (passenger and freight) and taxpayer, and focuses the efforts of all concerned on meeting these needs in a cost-effective manner.

10 **The way in which the main players have operated** – with NR often working in a heavily-centralised manner and at times seeming to be insufficiently concerned with the needs of its customers, and the TOCs at times taking very short-term views in an industry that requires long-term planning.

11 Many of the barriers stem from **incentives which are either ineffective or misaligned**. In particular, the incentives on NR and TOCs are almost completely different, the TOCs have limited incentives to manage rolling stock leasing costs and track access costs, and the system of incentives overall appears to have a bias towards capital expenditure rather than making better use of existing capacity.

12 The Government's recent review of **franchising** has identified the problems of relatively short franchise periods, overly-prescriptive franchises, insufficient risk transfer from Government, and difficulty in agreeing changes to franchise agreements.

13 **Fares structures** do not send efficient pricing signals, particularly in terms of managing peak demand, and are extremely complex.

14 GB rail lacks best-practice in a number of areas which need to be managed from a whole-system perspective and which are key drivers of costs – **asset management, programme and project management, supply chain management, and management of standards and innovation.**

15 The industry also has weaknesses in **HR/IR management** which have allowed excessive wage drift, at all levels, and the continuation of inefficient working practices.

16 The industry's **legal and contractual framework** is complex and arguably has adverse effects on attributes and relationships, as well as engendering additional costs.

17 All of the above, and particularly the interfaces issue, mean that **whole-system approaches are difficult to apply** in an industry that often needs them. Players within GB rail are more inclined to follow approaches which maximise their position within their own "silo", rather than optimising outcomes for the industry as a whole, for example in the areas of technology and innovation.

18 Many of the barriers identified above are interconnected, and they all come together in the industry's **culture and relationships**. Despite some considerable thought on the matter, the Study remains uncertain as to whether the industry's culture causes the lack of leadership at industry level, or whether the lack of leadership has contributed to the problems in relationships and culture. On balance, we think the latter explanation is more likely.

19 The Study does not see this set of barriers as a cause for despair. On the contrary, given that the issues are already fairly widely recognised, it believes that the barriers can be overcome with strong leadership and with concerted efforts from all concerned.

Recommendations

20 Given the extent of the barriers, the Study's recommendations are similarly extensive, and are set out in detail in the Level One and Level Two reports. The key recommendations can be summarised under three main headings.

(1.) Creating an enabling environment

21 Recommendations under this heading are the principal catalysts for change, and need to be in place to enable delivery of the main savings from other areas.

22 **Recommendations for leadership from the top:**

- The Department for Transport (DfT) to develop a clearer definition of the roles of Government and industry, with Government focused primarily on setting the overall vision for the industry, the direction of rail policy, the objectives for the industry, the level of funding available, and leading on franchising procurement.
- The industry to accept greater responsibility for strategic planning and the delivery of outcomes in line with Government's policies and objectives, particularly on cost reduction.
- The industry to establish a Rail Delivery Group, consisting of the most senior people from NR and the TOC-owning groups, freight and other stakeholders, to lead a substantial programme of change – focused particularly on cost reduction, changing the industry culture, encouraging more integrated whole-system approaches where necessary, and

improving the speed and effectiveness of cross-industry bodies. Mechanisms for establishing a dialogue at industry level with the trade unions should also be explored.

- On some critical issues, it may also be necessary for the Secretary of State to give a lead.

23 **Recommendations for clearer objectives:**

- Government to provide greater clarity about what Government policy is, how different strands of policy are harmonised, and make clearer the links between the different levels of policy, objectives, strategies and implementation.
- The High Level Output Specification (HLOS)/Statement of Funds Available (SoFA) process to include specific cost objectives and a greater degree of longer term planning.
- There should be a move away from "predict and provide" to "predict, manage and provide", with a much greater focus on making better use of existing system capacity.
- The DfT to work with industry to develop a comprehensive analysis of how subsidy is used, i.e. where subsidy is used and what it is buying; the DfT should then assess how this use of subsidy contributes to Government's policy objectives.

24 **Recommendations for devolved decision-making:**

- Less prescriptive franchises to allow TOCs more freedom to respond to the market.
- Decentralisation and devolution within Network Rail.
- A greater degree of local decision-making by PTEs, and/or local authorities, brought more closely together with budget responsibility and accountability.

25 **Recommendations for changes to structures and interfaces:**

- Devolution and decentralisation within NR.
- Introduce diverse ownership of some infrastructure management concessions.
- Closer alignment of route-level infrastructure management with TOCs, at one or other of the following levels:
  - minimum – cost **and** revenue sharing, and joint targets; or
  - intermediate – joint ventures or alliances; or
  - maximum – full vertical integration though a concession of infrastructure management and train operations combined.

The Study recommends having at least two joint ventures/alliances in place by 2013/14 and at least one vertically-integrated pilot in place by about the same time.

The DfT and the ORR should drive this process of closer alignment in all new franchise procurements and for new Control Periods for NR.

The Study recognises that, within the current franchises and Control Period, choices between these options for alignment are commercial decisions for these concerned, and that "one size will not fit all". It is also clear that there must be effective safeguards for freight and other operators.

26 **Recommendations for more effective incentives:**

- Reform of franchising, along the lines already announced by Government with much stronger incentives for TOCs to reduce costs, and to co-operate more effectively with NR.
- Closer alignment of NR and TOC incentives through the structural changes indicated above.
- In relation to NR:
  - comparative regulation of route-level units;
  - introducing a degree of independent ownership of infrastructure management concessions;
  - consider directing all subsidy for NR through track access charges;
  - develop improved corporate governance and a better focused management incentive programme; and
  - assess the potential, after industry structures stabilise, for unsupported debt and/or private investment.
- Improved incentives for efficient enhancements.
- Improving incentives and clarifying responsibilities for the efficient management of existing capacity.
- Greater transparency of the industry's finances and cost performance.

27 **Recommendations for regulation:**

- Move towards the industry having a single regulator, the ORR, with a new focus on whole-system outputs and with the necessary resources, skills and standing to support an expanded role.
- The DfT to undertake a full review of fares policy and structures, aiming to move towards a system that is seen to be less complex and more equitable, and which also aids the management of peak demand and the more efficient matching of demand with capacity. The Study's recommendations envisage some re-balancing of fares but no increase overall.
- The DfT to work with industry to accelerate Smartcards, other retail technologies and introducing other retail locations.
- The DfT, in liaison with the industry, to overhaul the Ticketing and Settlement Agreement which prescribes such matters as ticket office opening hours, providing other enabling pre-conditions are met.

(2.) Delivering greater efficiencies

The areas from which the principal savings are expected to come are as follows.

28 **Recommendations on asset management, programme and project management, and supply chain management** focus on stronger partnership working from inception through to the supply chain, identifying the optimum approaches to maintain, renew or enhance the

railway, followed by delivery of the necessary engineering work or equipment in the most efficient manner. This will require:

- Industry wide adoption of modern, best-practice frameworks to encourage whole-system, whole-life approaches, focusing particularly on considering all available options fully before fixing on the solutions;
- Making best use of the new objectives, incentives, structures and interfaces to achieve improved trade offs between infrastructure, rolling stock and operations;
- Better selection of the optimum maintenance approaches, informed by better understanding of assets and better asset condition information to reduce maintenance and renewals effort;
- Better visibility of forward plans and less volatile workloads to encourage long term investment by suppliers in whole life solutions and cost reduction approaches;
- Earlier involvement of suppliers and contractors, and much wider use of partnering approaches, to incentivise all parties to reduce the cost of delivering rail services.

29 **Recommendations on safety, standards and innovation:**

- Clearer safety leadership at industry level to drive further improvement in the rail safety culture.
- Establishment of a Rail Systems Agency (RSA) to lead the industry in achieving technical excellence in standards management, technical integration, and driving innovation.

30 **Recommendations on HR management:**

- Review of many aspects of staffing and working practices.
- The need for pay restraint in relation to both staff and senior management.
- The need for improved training and people development.
- Review of overheads and administration.

31 **Recommendations on information systems:**

- Improved oversight and management of cross-industry information systems.

32 **Recommendations on rolling stock:**

- Increased standardisation and more effective procurement of rolling stock, plus establishing strategic partnerships with the ROSCOs.

33 **Recommendations on lower-cost regional railways:**

- Piloting more differentiated approaches for both infrastructure and operations which can maintain standards of safety, but which can reduce the costs of less intensively used networks.

(3.) Driving implementation

34 **Recommendations:**

- A small independent team for change programme management to work closely with the Rail Delivery Group, and to report direct to the Secretary of State against an agreed implementation plan.

Conclusions

Cost savings

35 The Study estimates that the cost savings from these and the Study's other recommendations, when added to the savings planned from NR in Control Periods 4 and 5, have the potential to close the 30% efficiency gap by 2018/19, with further savings accruing beyond that date.

The challenge

36 Solving the cost problem is a crucial task for the industry. It would enable the industry to give a fair deal to passengers and taxpayers. It would ease the challenge of living within future budget allocations, and it is the key to the industry's licence to grow for the future.

37 These recommendations are recognised to be challenging, and it will require substantial change and adjustment from everyone involved. However, the Study believes that it is achievable, and has been much encouraged by the clear desire of so many people in the industry to solve the problems which are evident to all.

A better deal for passengers and taxpayers

38 The Study's Terms of Reference required indentification of options for improving value for money to passengers and taxpayers, whilst continuing to drive up passenger satisfaction.

The primary thrust of the Study has been to develop options and recommendations that could reduce costs. Successful implementation of these measures can reduce the upward pressure on fares.

Lower costs can also reduce the burden on the taxpayer, as can measures to understand better the use of public subsidy, and to control its level more effectively.

For passengers, as well as potentially easing the upward pressure on fares, the Study's recommendations could offer other significant benefits:

- More flexibility for, and focus on, TOCs meeting market needs;
- More investment decisions made by these who operate the network or who are closest to the market, rather than centrally;
- More joined-up regulation, with obligations to passengers reflected fully within the regulatory structure;
- Improvements to a fares structure that many passengers see as complex and often unfair;

- Accelerated introduction of Smartcards, modern retailing technologies, and a wider range of retail locations;
- Improved cross-industry information systems; and
- A clearer sense of strategic direction and vision for the industry.

Report of the Rail Value for Money Study

Level One Report –
Summary of Principal Findings and Recommendations

1. Introduction to the Level One report

The Rail Value for Money Study has been sponsored jointly by the Department for Transport (DfT) and the Office of Rail Regulation (ORR). This report as a whole responds to the Terms of Reference set out by Lord Adonis, then Secretary of State for Transport, in February 2010. Those Terms of Reference are reproduced in Annex A.

Following the May 2010 General Election, the Study's general approach was endorsed by the new Secretary of State, the Rt Hon. Philip Hammond MP. The Study is most grateful to him for his active engagement in, and support for, the Study.

The UK Government is responsible for the overall framework of the GB railway, but the Scottish Government and the Welsh Assembly Government have substantial devolved powers in relation to the railways in Scotland and Wales, respectively.

This final report from the Study is structured as follows:

- **Summary Report** (this document) contains:
  - A Foreword;
  - An Executive Summary; and
  - The Level One report, which sets out the Study's principal findings, recommendations and assessment of the potential for reductions in GB rail costs.
- **Detailed Report** (Level Two), which contains reports from each of the workstreams within the Study, including their detailed analysis of data, issues and barriers, together with more detailed recommendations and analysis of potential cost savings. The Level Two report is available on-line at www.dft.gov.uk/rail-value-for-money.

Shortly after publication of the above two documents, the Study will make available on-line the consultants' reports that were used in developing its analysis and recommendations.

The Study is grateful to its sponsors, the DfT and the ORR, for their help and support throughout, and is appreciative of the input and advice from the many people throughout the industry who have participated in stakeholder groups, in workshops, or in other ways.

This report is the result of an independent Study. It is for the UK Government, the devolved administrations, the ORR and the industry to decide in what ways to take the Study's recommendations forward.

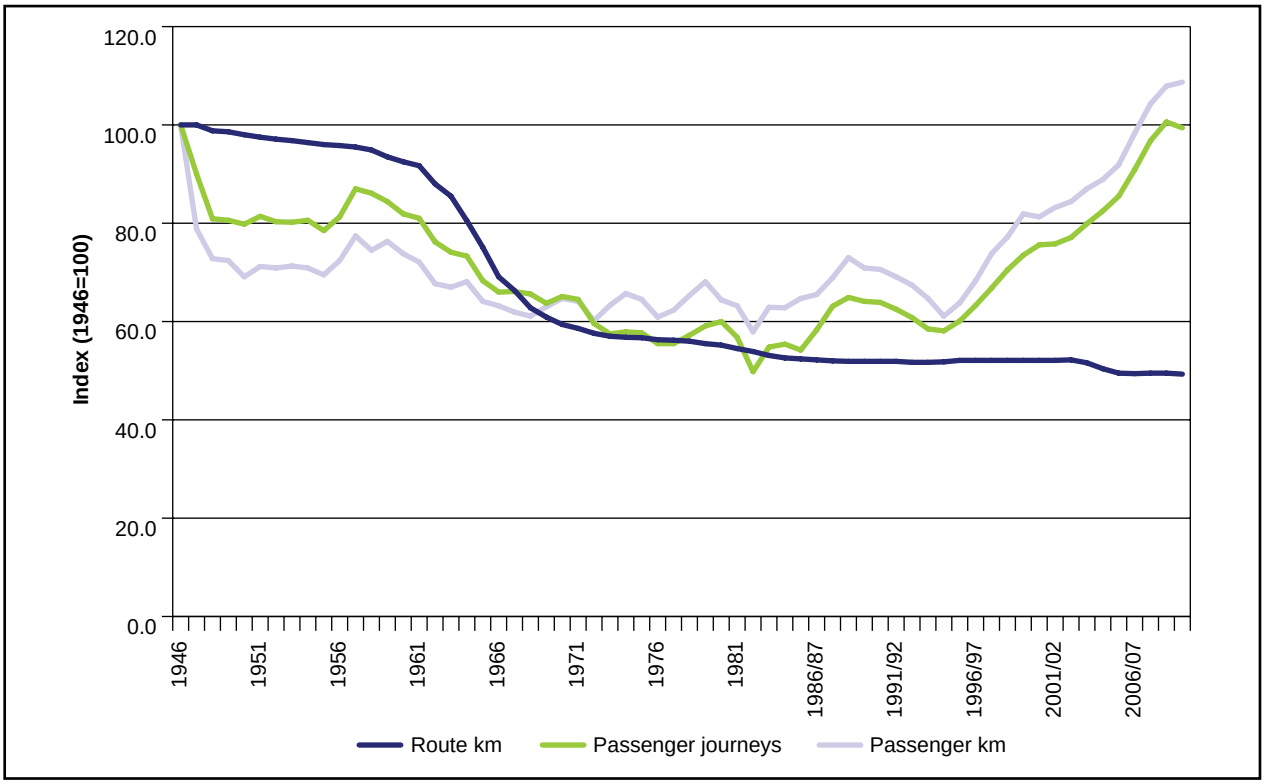
2. Principal findings

2.1 Positives

Railways are a key mode of transport in a number of markets, a mode that is sustainable and relatively environmentally-friendly. The rail network supports economic growth by enabling major cities to function, as well as providing effective transport links throughout Great Britain. Rail freight also makes an important contribution to the economy, as well as helping to ease congestion on the roads.

Over the last 15 years, the GB rail network has enjoyed a sustained period of growth and development in both passenger and freight markets. Today the industry can demonstrate continued improvement in safety, increasing customer satisfaction, historically high levels of operational performance and significant investment in rolling stock, new infrastructure and customer information. Particularly striking is the recovery in passenger numbers since the mid 1990s after half a century of decline (Figure 2.1).

Figure 2.1: Change in network length (route-km), passenger-km and journeys, 1948–2009



In many ways the GB rail structure established in the mid-1990s has delivered good results. However, the Study commenced its work with a clear recognition that notwithstanding the industry's many achievements, there had been a significant increase in the total cost of the industry to Government and to end users. This is despite productivity improvements already made

by Network Rail (NR) during Control Period 3 (CP3) and by some Train Operating Companies (TOCs).

2.2 Rail's licence to grow

Even with the impacts of the global recession on the UK economy, rail demand has remained strong, and there is the clear prospect of significant future growth in freight and passenger traffic, potentially doubling by 2030. This would allow the rail network to contribute substantially to governmental objectives of supporting and stimulating economic growth, promoting sustainable development, and improving social and regional cohesion.

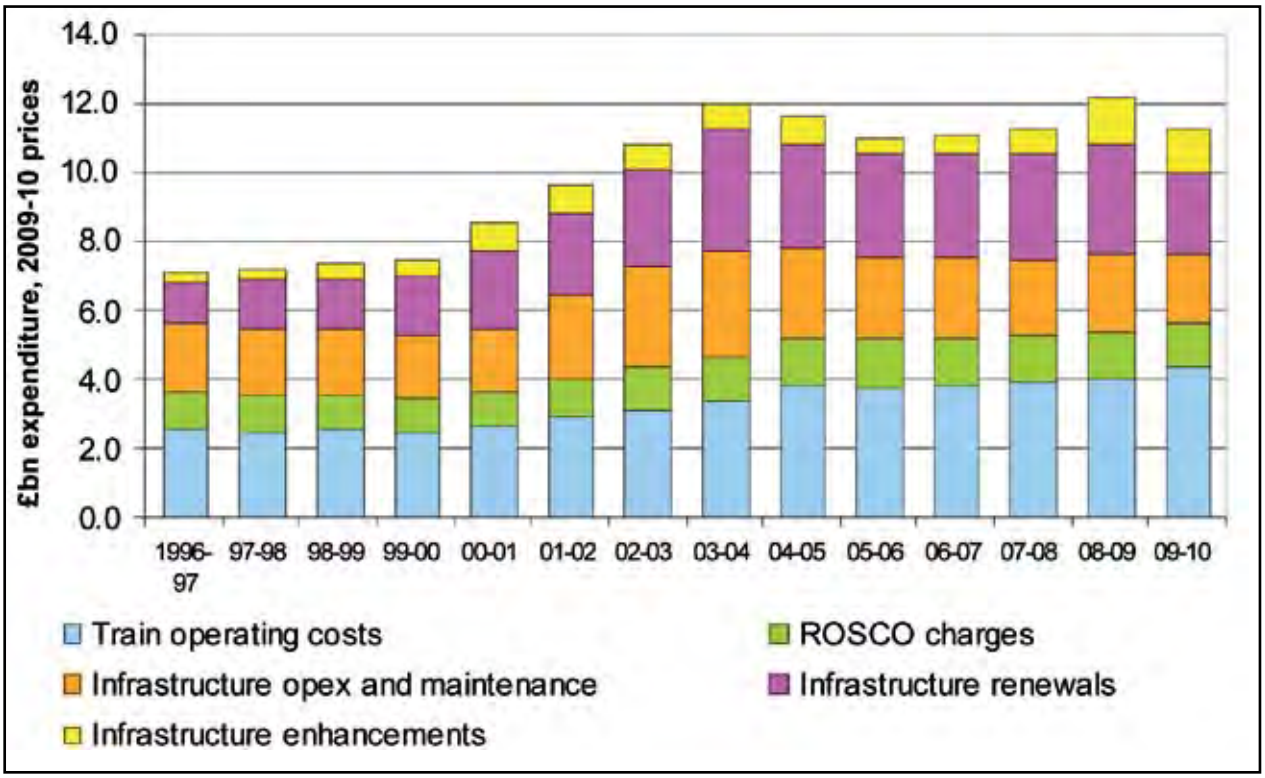
However, it seems unlikely that rail growth on this scale will be allowed to happen unless the industry's economics are transformed. The current £4.3bn industry operating deficit (passenger revenues minus costs) equates almost exactly to the operating deficit of the industry in 1996/97, factored up for the 57% growth in passenger numbers since that time and adjusted to 2009/10 prices. This is not surprising as unit costs per passenger-km in 2009/10 were almost exactly the same as in 1996/97, after adjusting for inflation, and the industry is not generating any cash from operations to contribute towards the capital expenditure required for expansion. It is very hard to imagine any Government approving a doubling of the railway's activities if this meant a doubling of this level of deficit. For that reason, success in reducing the unit costs of the railway is likely to be one of the principal keys to the industry's "licence to grow".

2.3 Costs and revenues

The previous Secretary of State for Transport gave the Study a clear remit to make recommendations on how the rail industry can deliver better value for money to passengers and the taxpayer. In the light of significant increases in the amount of subsidy paid for train service and infrastructure outputs, the Study has analysed the extent to which costs have increased since privatisation.

Since 1996/97 passenger rail industry expenditure, excluding interest, has increased by £4bn, or 60%, to around £11bn (2009/10 prices), as shown in Figure 2.2.

Figure 2.2: Passenger rail industry expenditure 1996/97 to 2009/10



Source: NR regulatory accounts and other sources.

Note: Train operating costs exclude access charges apart from traction electricity.

The salient features of these expenditure trends were the pronounced increases in costs following the Hatfield derailment in the year 2000, and a subsequent levelling-off due to efficiency improvements made by Network Rail from 2003/04 onwards – with NR meeting its target of a 30% cost reduction during Control Period 3.

Increases in expenditure occurred in the following areas:

- Train operating costs, where costs have increased by £1.7bn, around £0.8bn of which can be attributed to the increase in train-km. Much of the remaining cost increase can be attributed to an increase in staff costs, some of which may be related to increased outputs – for example in terms of station staffing – but some of which reflects salary increases in excess of the increase in average earnings.
- Rolling stock charges, which have increased by £0.3bn, reflecting the increase in train-km and number of vehicles leased, as well as new vehicles and new standards.
- NR operating and maintenance expenditure peaked in 2003/04 and have since fallen by £1.1bn; a large part of the post-Hatfield cost increase has now been removed, and these costs are now at the same level as in 1996/97.
- Renewals expenditure is currently £1.1bn higher than 1996/97, approximately £0.7bn of which is related to increased renewals volumes. Again, there has been a reduction in costs from the post-Hatfield peak, with renewals unit costs falling by 29% from 2004/05.[1] It is difficult to

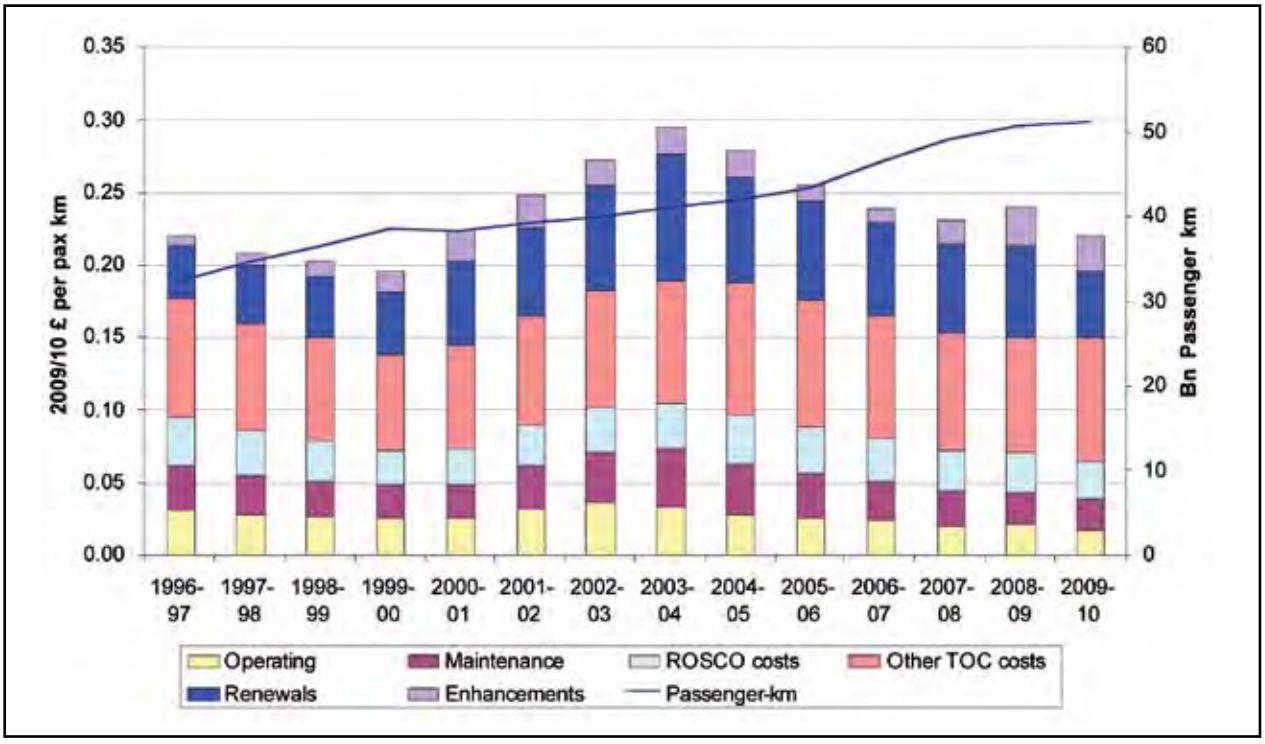
1 Office of Rail Regulation (2010) *Annual Efficiency and Finance Assessment of Network Rail 2009–10*. London: Office of Rail Regulation. This document can be accessed at www.rail-reg.gov.uk/upload/pdf/nr_efficiency_assessment_0910.pdf.

assess the extent to which expenditure on renewals reflects changes in the renewals backlog. However, there is evidence that efficiency improvements in track renewals, in particular, have been difficult to achieve.

- Infrastructure enhancement expenditure has increased by £1.0bn, part of which relates to major projects, including Thameslink and Airdrie to Bathgate.

Against the background of a 57% increase in passengers over this period, it might have been expected that unit costs would fall – bearing in mind that this is an industry with relatively high fixed costs. However, unit costs in 2009/10, at just over 20p per passenger-km, were almost exactly the same in real terms as in 1996/97, as shown in Figure 2.3.

Figure 2.3: Industry expenditure per passenger-km (2009/10 prices)



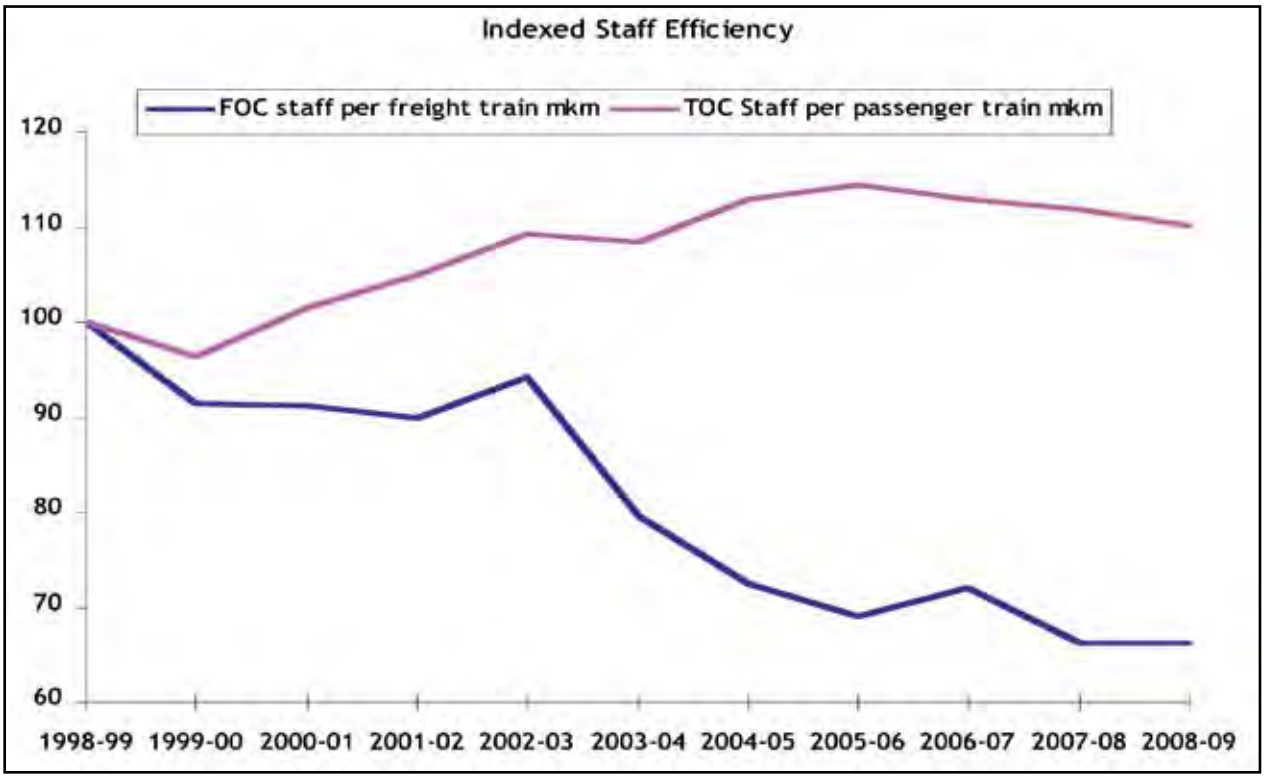
In the latter days of Railtrack, and particularly after the Hatfield derailment in 2000, unit costs rose sharply, principally due to very substantial increases in maintenance and renewals costs. As a result of NR meeting its 30% cost-reduction target during CP3, these costs have since returned gradually to more normal levels overall. Maintenance costs, in particular, have reduced considerably. However, the overall end result is that costs per passenger-km in 2009/10 were similar to those nearly 15 years earlier.

2.3.1 Freight industry demonstrates significant efficiency gains

The only railway operations to be sold directly, rather than franchised, at the time of privatisation, were the Freight Operating Companies (FOCs). Freight operates in a highly-competitive logistics market, with competition between rail freight operators and between them and other freight transport modes. Rail freight does not receive operating subsidy, although freight generally pays only variable track access charges, and Government funding has been available to support modal shift where environmental or other benefits can be achieved.

Since 1997 freight traffic has risen as the private-sector freight companies have invested in new rolling stock and entered or re-entered different market segments. Freight unit costs have reduced and there is a clear contrast in staff productivity between the freight and passenger sectors, which may be due to the greater effect of competition on freight companies (Figure 2.4).

Figure 2.4: Indexed staff productivity – freight and passenger rail



2.3.2 Overall industry financial position and subsidy

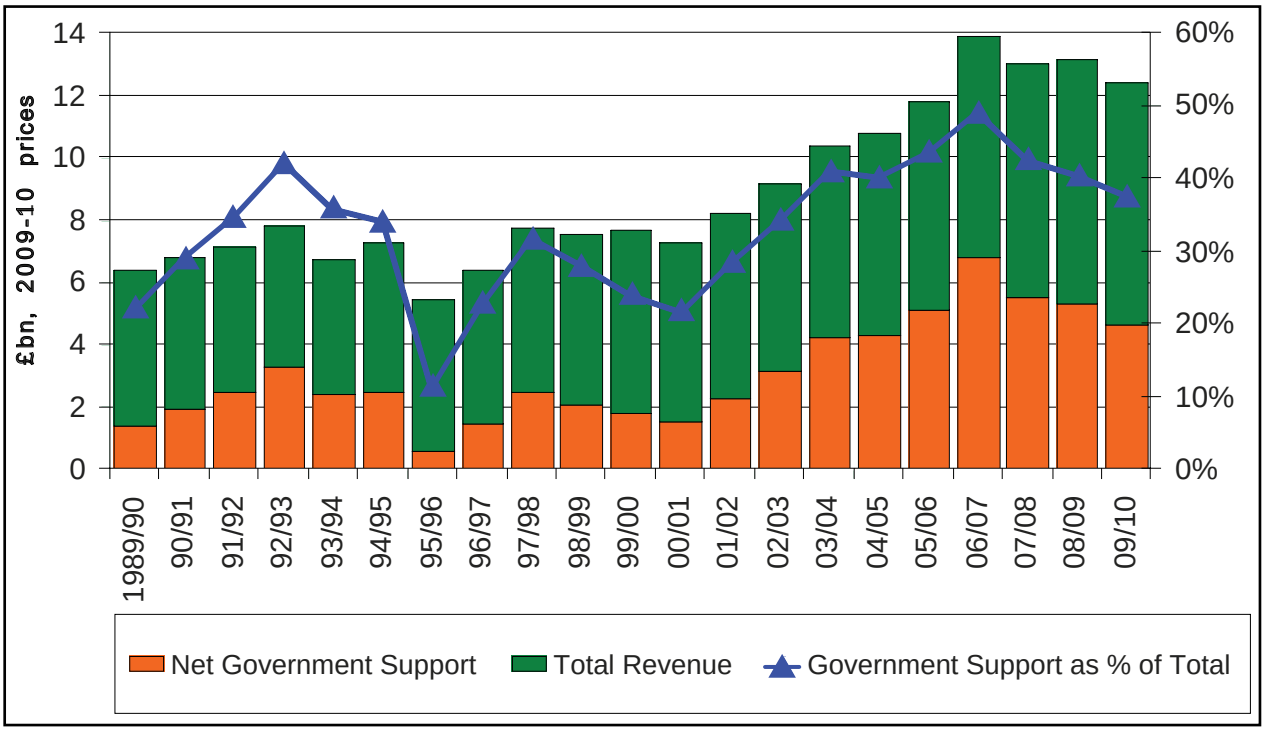
A net increase of £1.7bn in Government subsidy occurred between 1996/97 and 2009/10.[2] Since 1996/97, increases in passenger revenue of £2.7bn annually have been more than offset by increases of:

- £2.0bn in train operating costs (including Rolling Stock Company (ROSCO) charges); and
- £2.7bn in NR's net revenue requirement.

Figure 2.5 shows net governmental support peaking in 2006/07 at £6.8bn, 49% of the combined total of Government support and revenue. By 2009/10 net support had fallen to £4.6bn – down to 37% of the combined total, but still significantly above the proportion of Government subsidy experienced during the 1990s.

2 Source: National Rail Trends. This excludes Government support, including receipts from privatisation and contributions towards enhancement schemes such as Crossrail.

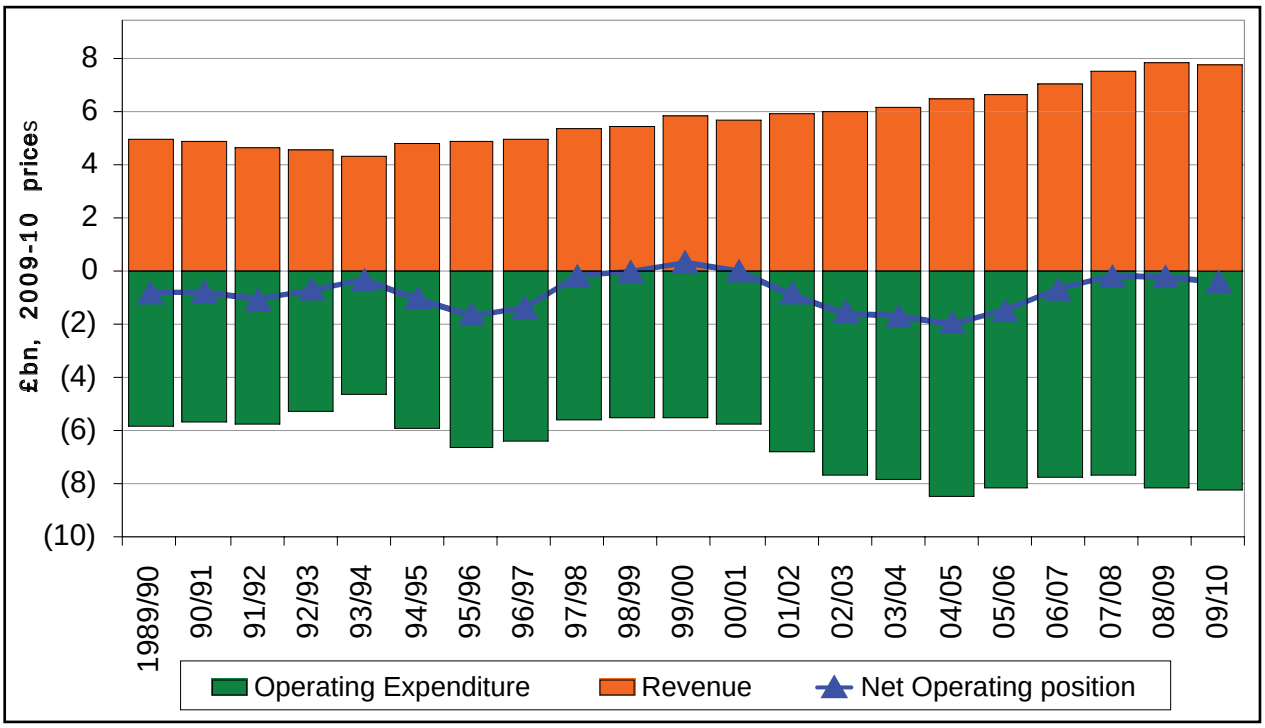
Figure 2.5: Industry revenues and subsidy 1989/90 to 2009/10



Source: National Rail Trends, DfT statutory accounts, TOC statutory accounts

To understand better the drivers of subsidy growth, the Study has separately examined the net industry operating position, which includes only operating expenditure and revenues (Figure 2.6).

Figure 2.6: Industry net operating results

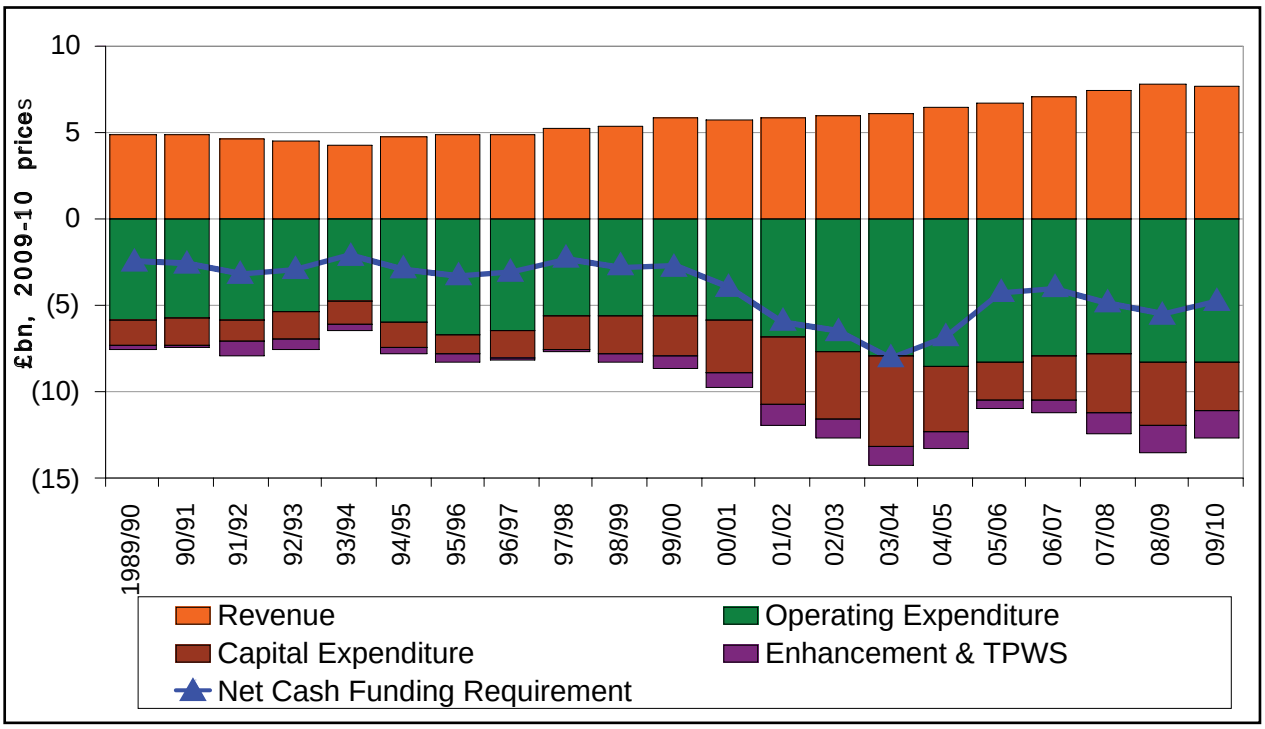


Source: National Rail Trends, DfT statutory accounts, TOC statutory accounts

Figure 2.6 shows that the industry's revenues are now almost covering its operating costs (i.e. excluding renewals and other capital expenditure). However, the industry's net cash position

(see Figure 2.7) shows a significant overall deficit, as there is no cash surplus from operations to contribute towards the substantial capital expenditure and enhancements being incurred.

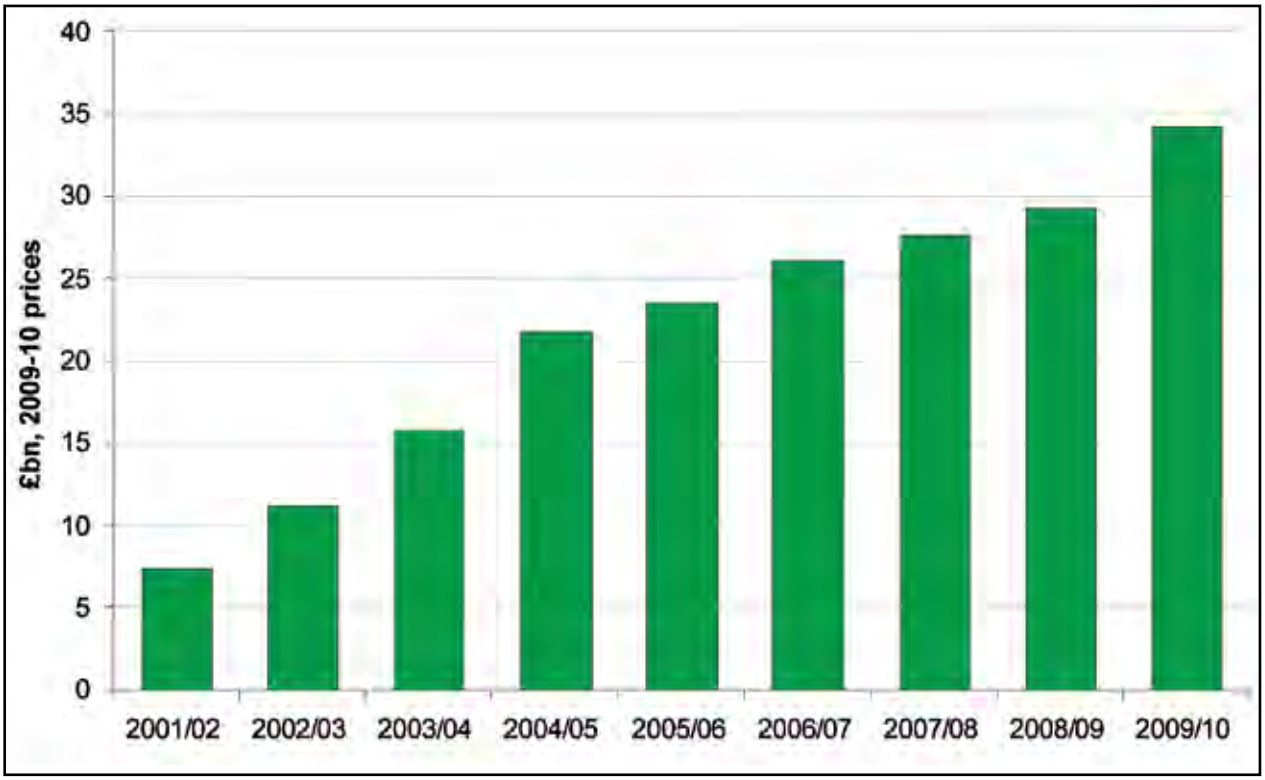
Figure 2.7: Industry cash generation



Source: National Rail Trends, Network Rail statutory accounts, DfT statutory accounts, TOC statutory accounts

In parallel, NR has been accumulating substantial expenditures in its Regulatory Asset Base (RAB) (Figure 2.8).

Figure 2.8: NR's RAB at the start of the year



The RAB mechanism enables NR capital expenditure and enhancements to be financed exeternally, with interest and amortisation being spread over the lives of the assets. However, strong financial discipline is essential to control the risk of the RAB rising to levels that cannot be supported by the industry's finances in the future. The increase in the RAB in recent years underlines that risk.

Review of these trends in the overall GB rail financial position and subsidy, and discussion with experienced industry figures, suggests that:

- while the budgetary constraints under which British Rail (BR) operated may have been too severe at times, and probably contributed to a significant backlog of investment, those constraints were arguably more effective in controlling industry costs and finances than the post-privatisation control regime has been; and
- the principal key to improving the railway's financial position lies in the industry's own efforts to improve efficiency in all aspects of its operations, and in particular to reduce unit costs and create an operating surplus that can contribute towards investment.

2.3.3 Rail costs are considerably higher than might be expected

The Study undertook an inital desktop "should cost" analysis to assess what the GB railway should cost if it was operating at the frontier of efficiency, having made efficiency improvements in line with what has been achieved in efficient companies in other privatised industries. It also drew on a broad range of evidence including that gathered by the ORR at the last periodic review, as well as other GB and international railway benchmarking, and produced estimates which are Low (conservative estimates) and High (more aggressive estimates).

On this top-down basis, the Study's "should cost" analysis suggested that the industry's total costs in 2008/09 were between £2.5bn and £3.5bn above what might have been expected. After allowing for savings in NR's expenditure in line with the current CP4 settlement, and assuming the ORR's indicative range of costs for CP5, the analysis pointed towards a remaining efficiency gap of between £0.7bn and £1.7bn (Tables 2.1 and 2.2). (For the purposes of this analysis, train operating expenditure is amalgamated with the ROSCO costs.)

Table 2.1: Low estimate (£bn, 2008/09 prices)

	TOCs and ROSCOs	NR	Total
Low estimate of efficiency gap	0.7	1.8	**2.5**
Less NR savings committed for CP4		-1.2	**-1.2**
Less NR savings provisionally indicated by ORR for CP5		-0.6	**-0.6**
Remaining efficiency gap	**0.7**	**0.0**	**0.7**

Table 2.2: High estimate (£bn, 2008/09 prices)

	TOCs and ROSCOs	NR	Total
High estimate of efficiency gap	1.2	2.3	**3.5**
Less NR savings committed for CP4		-1.2	**-1.2**
Less NR savings provisionally indicated by ORR for CP5		-0.6	**-0.6**
Remaining efficiency gap	**1.2**	**0.5**	**1.7**

It should be noted that all of the above figures for potential cost savings are on an "expenditure" basis, i.e. the savings would represent reductions in real expenditure, but would not necessarily translate directly into cash savings of the same amounts to Government because of the accounting effect of NR's RAB. Also, some savings would accrue first to others (NR and TOCs particularly) and would feed through to Government only at Control Period ends or at franchise renewals. The potential impact on the "should cost" figures of closing the efficiency gap is summarised in Table 2.3.

Table 2.3: Impact on industry costs of "should cost" exercise (2008/09 prices)

	Low savings (£bn)	High savings (£bn)
Total industry expenditure (2008/09 actuals)	12.0	12.0
Effect of closing the total efficiency gap	-2.5	-3.5
Resultant reduced industry costs (using 2008/09 base)	9.5	8.5

On this basis, closing the total efficiency gap would require an efficiency improvement in the range 20–30%. In the light of further international benchmarking, described later, the Study has concluded that the industry objective should be at the top end of this range, i.e. an efficiency improvement of 30% by 2018/19. This is a very substantial challenge, but, as explained later, the Study considers that this efficiency gap could be closed if the recommendations from the Study are implemented in full.

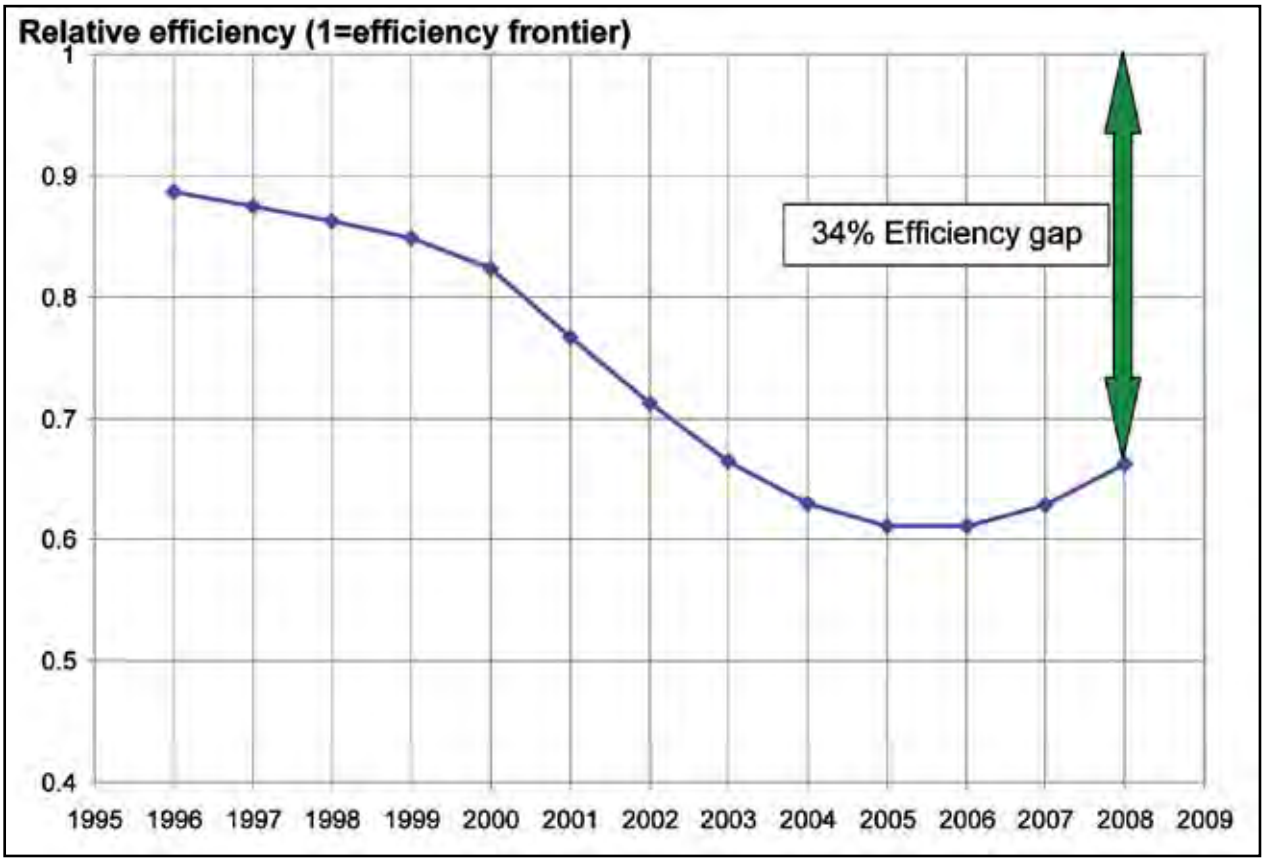
Given that NR has accepted the challenge of meeting its CP4 targets and is preparing to continue the savings drive in CP5, a substantial proportion of the remaining efficiency gap would have to be closed by reducing TOC and ROSCO costs.

2.3.4 International benchmarking shows similar scope for cost reduction in GB rail

Previous studies

As part of the last periodic review of NR, the ORR undertook a range of top-down benchmarking of infrastructure maintenance and renewal costs. The ORR has subsequently updated its work on econometric benchmarking on infrastructure maintenance and renewal costs to take into account the latest data from NR and European infrastructure managers. Notwithstanding the considerable progress made by NR since its inception, this work by the ORR confirms its earlier analysis and identifies an efficiency gap between NR and the top-performing European infrastructure providers of some 34%, based on data for 2008. The trend since privatisation is shown in Figure 2.9, indicating a rapid decline in relative efficiency during the Railtrack period, a stabilising of the position by 2005/06 and a gradual recovery since then.

Figure 2.9: ORR latest international benchmarking on maintenance and renewal costs



International comparisons suggest that other European countries have obtained significant cost reductions from the competitive tendering of train operations, in particular:

- the Netherlands, where competitive tendering has led to an efficiency gain of 20–50% compared with directly awarded contracts, which improved efficiency by 0–10%;

- Sweden, where tendering led to subsidy reductions of 20–30%;[3] and
- Germany, where tendering has led to cost reductions of around 20% while the service level and quality have been improved.[4] Although there have been problems with some contracts, these efficiency gains appear to have been retained in further rounds of franchising.

By comparison, unit costs of franchised services in Great Britain (including ROSCO costs) have shown relatively little improvement over the whole period since privatisation.

Differences in performance gains between Great Britain and these European examples may result from differences in the approach taken to franchising. While Great Britain has franchised all services, franchising in Europe has tended to focus largely on subsidised regional services, with main-line services continuing to be operated by the former state monopoly. This has allowed new franchised operators some flexibility over staffing, with staff given the opportunity to transfer to the new operators or remain with the state incumbent. Although this has led to problems in some circumstances, it has allowed new operators to improve labour productivity and therefore reduce overall costs. Other cost savings have come from reductions in rolling stock and depot costs, and from reductions in overheads.

Benchmarking of TOC costs within Great Britain suggests that there are significant efficiency differences between TOCs. The efficiency of the best-performing companies is typically some 30% better than poorer-performing companies, although it is recognised that differences in the characteristics of different franchises can contribute to this.

International benchmarking commissioned by the Study

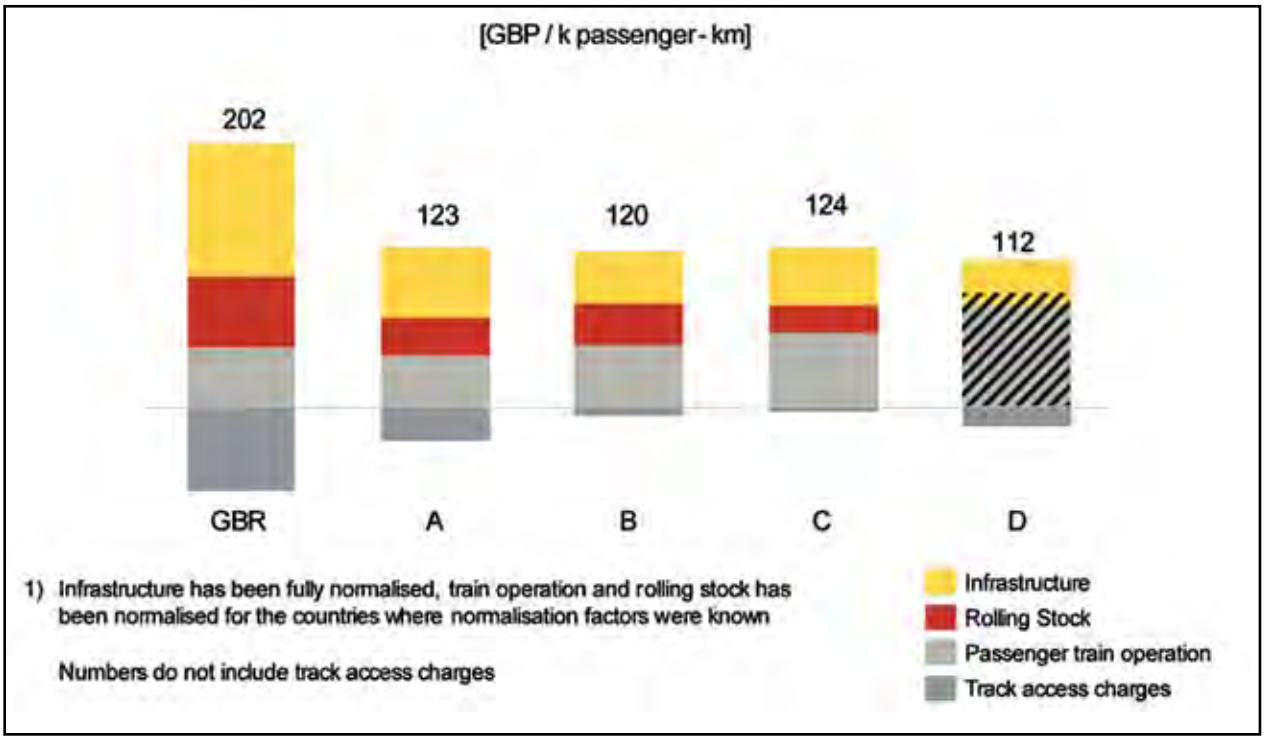
A key part of the Study was to undertake whole-industry international benchmarking. The consultants Civity were commissioned to benchmark whole-industry costs, examining elements of infrastructure and train operating costs separately across Great Britain and four European countries: France, the Netherlands, Sweden and Switzerland. Costs were, as far as possible, normalised for underlying factors such as exchange rates (using 2009 purchasing power parities), degrees of electrification, single or multiple tracks, travel speeds and distances between station stops.

A comparison of whole-system costs per passenger-km suggests that unit costs in GB rail would need to be reduced by around 40% to reach the average of the four comparator counties (Figure 2.10).

3 Alexandersson, G. and Hulten, S. (2007) Competitive Tendering of Regional and Interregional Rail Services in Sweden, *Proceedings of the Competitive Tendering of Rail Services, ECMT Workshop*; and Alexandersson, G. and Longva, F. (2009) *Impact of Deregulation on the Performance of Long Distance Transport Services: A Comparison of the Different Approaches in Sweden and Norway*.

4 Brenck, A. and Peter, B. (2007) Experience with Competitive Tendering in Germany, *Proceedings of the Competitive Tendering of Rail Services, ECMT Workshop*.

Figure 2.10: Comparison of whole system costs (partly normalised) £/k passenger-km



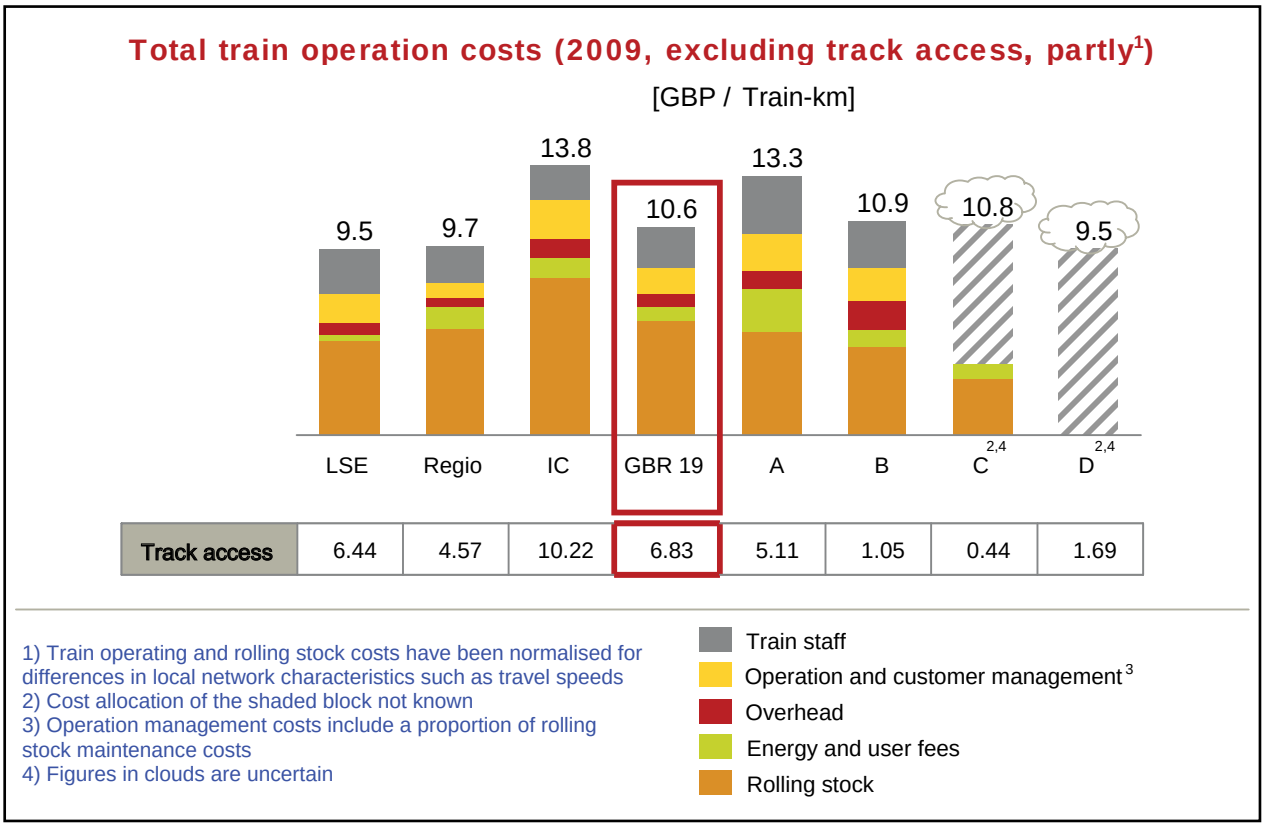
Source: Civity (2011).

Note: The shaded area denotes costs not reported separately.

For the reasons outlined earlier, it is not a surprise that GB infrastructure costs are the most significant contributor to higher costs.

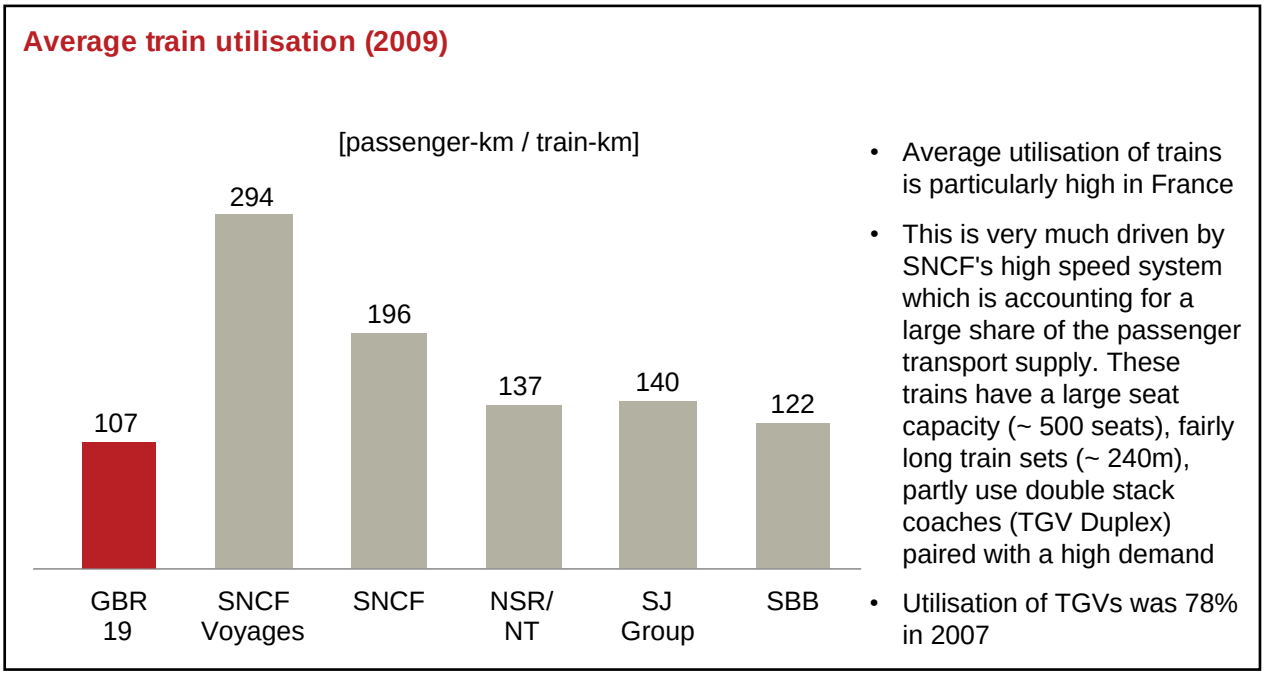
Figure 2.11 shows that total train operation costs per train-km are lower in GB than in comparator countries. Within this comparison, rolling stock costs in GB appear to be higher than the comparators (although no allowance has been made for rolling stock age or quality) but train staff, other staff costs and overhead costs are lower. Were these figures to be adjusted for train utilisation (passenger km per train km) the Study would expect the GB train operations cost per passenger-km to be worse than the comparator countries.

Figure 2.11: International comparison of train operating costs



A key driver of GB rail's higher unit costs appears to be a relatively low level of train utilisation, i.e. the number of passenger-km per train-km. Figure 2.12 shows that GB rail train utilisation is significantly lower than four comparator countries.

Figure 2.12: Comparison of loadings by train-km

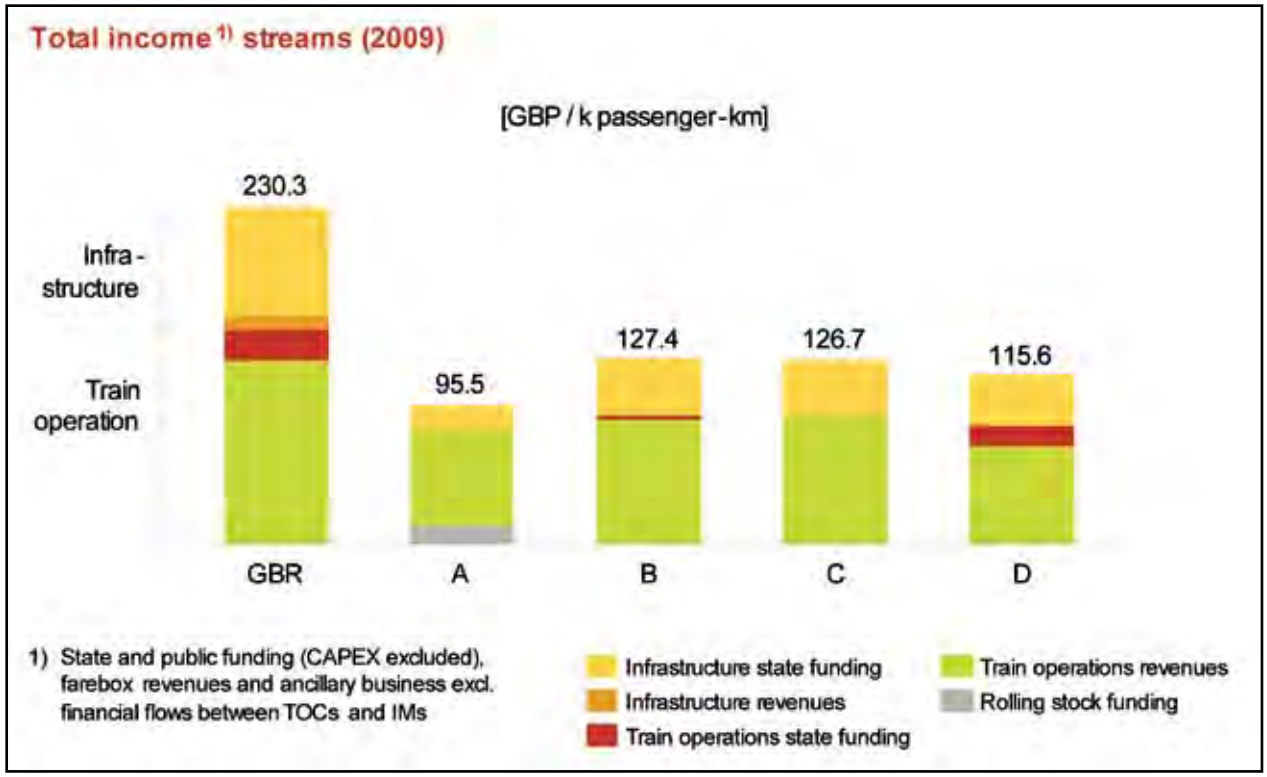


There appear to be a number of reasons for this difference in train utilisation, for example different geographies and population distributions, different train lengths and capacities, different frequencies and service patterns, the pronounced service peaks in London and the South East, and

low levels of passenger loading in a number of GB regions. As reported by Passenger Focus in 2009, most of Britain's passengers seem better served than other European passengers by the number and times of trains available. However, the level of train utilisation has a powerful and direct effect on unit costs. GB rail's train utilisation is 20-25% lower than the median performers amongst these comparators, with a corresponding adverse effect upon total unit cost per passenger kilometre.

The result of these differences in costs, arising particularly from higher infrastructure costs and lower passenger loadings, is that costs per passenger-km (as shown earlier) are significantly higher in GB rail. And, of course, these higher costs are paid for by higher levels of funding from passengers and taxpayers as shown in Figure 2.13 below.

Figure 2.13: Total income streams



Total revenues per passenger-km in Great Britain are significantly higher than in the comparator counties. Comparision of passenger revenues per passenger kilometre (shaded green in the above diagram) indicates that GB rail fares would need to reduce at least 30% to match fares in the four comparators. This is consistent with previous analysis by Passenger Focus, which found that Britain's railways are generally more expensive, especially in London and the South East, albeit service patterns in GB are different and revenue yields may be affected by differing proportions of first-class fares in different countries.

What is also apparent is that taxpayer subsidy per passenger-km is substantially higher for GB rail than in the comparator countries, although it should be noted that subsidy figures should be regarded as indicative as they can be affected by debt write-offs, the treatment of capital expenditure, the coverage of the benchmarking and other factors.

2.3.5 Conclusions on costs and revenues

All of the Study's analysis indicates that GB rail has very substantial scope for efficiency improvement:

- historical figures indicate that unit costs of the GB passenger railway have not improved since the mid 1990s;
- the Study's initial "top-down" analysis suggested that GB rail should cost 20–30% less than it actually did in 2008/09; and
- benchmarking against four European railway systems indicates an efficiency gap of some 40%.

The difference between the 20-30% savings estimated by the Study and the 40% gap indicated by international benchmarking is most likely attributable to differences in train utilisation. Some of these train utilisation differences may be systemic, and elimination of a proportion of the resultant efficiency gap may therefore not be realisable, but the Study considers that a proportion could be eliminated if the DfT, NR and the TOCs focus on this issue together.

Taking account of the above findings, the Study is of the view that GB rail should aim for a 30% reduction in unit costs by 2018/19. The final and important conclusion on cost and revenues is that the excessively high costs of GB rail inevitably result in passenger fares being too high and taxpayers paying too much. They are both entitled to a better deal.

3. Potential for cost savings

The Study has also sought to estimate the potential for cost savings on a "bottom-up" basis, by assessing the savings which could be made if the recommendations from each area of the Study were to be implemented in full. These savings are over and above those targeted for Network Rail (NR) in Control Period 4 (CP4) and provisionally indicated by the Office of Rail Regulation (ORR) for CP5. The basis on which the Study's estimates were prepared, and the assumptions and caveats related to them, are set out in detail in the Level Two report.

Such estimates are inevitably only broadly indicative of the financial values which could be released. The estimates are again presented as a low case and a high case (Table 3.1).

Table 3.1: Estimate of savings in 2018/19 (in 2009/10 prices)

Study Area		**Low case (£m)**	**High case (£m)**
A	Industry objectives, strategy and outputs	90	110
B & C	Leadership, structures, interfaces and incentives	40	130
D	Revenue	90	90
E & F	Asset management and supply chain management	230	580
E & F	Programme management	40	100
G	Safety, standards and innovation	190	190
H	People	260	260
Less:	Double counts	(200)	(410)
Net funding savings		**740**	**1,050**

The estimates in Table 3.1 indicate the savings which might be achievable in 2018/19. These savings figures have been adjusted to reflect the effects of the NR Regulatory Asset Base (RAB), but other savings would accrue first to other parties (NR, Train Operating Companies, etc.) and would feed through to Government only at the commencement of new franchises and Control Periods.

The annual savings increase gradually towards 2018/19, as shown in Table 3.2 in 2009/10 prices.

Table 3.2: Build-up of savings from Study's recommendations

Year	Low savings in year (£m)	High savings in year (£m)
2012/13	30	36
2013/14	123	144
2014/15	138	201
2015/16	335	448
2016/17	452	629
2017/18	590	827
2018/19	740	1,050

In addition to these estimated savings, there are possible significant gains from improving train utilisation. This might not reduce current actual costs, but it has the potential to enable the railway to carry more people without increasing costs, and would thus improve industry productivity overall. As indicated earlier, GB rail's train utilisation is 20-25% lower than the median performers amongst four European comparators. If, for example, GB rail's train utilisation could be improved by 5% (i.e. reducing the gap to 15-20%) this would represent a productivity improvement worth £500–700m per annum against costs of future growth.

Taking into account the cost savings that Network Rail is targeted to achieve, plus the £1,050m savings that the Study estimates could flow from its recommendations, plus future potential gains from train utilisation, the Study considers that the target of a 30% efficiency improvement could be delivered by 2018/19.

It should be emphasised that the savings estimates depend on growth in future demand, on Network Rail achieving its cost savings target in CP4, and NR savings projected in CP5, and depend also on the adoption of the complete package of reform. In particular, the main areas from which savings can come will not deliver unless the necessary enabling environment (objectives, strategy, leadership, structures, interfaces and incentives, etc.) is put in place.

4. Barriers to efficiency and value for money

The Study's Terms of Reference required it to examine what barriers stand in the way of efficiency improvements. In doing so, the Study has focused primarily on means of reducing costs, and has started from the viewpoint that, in almost any industry or activity, cost savings can always be made – and that the GB railway is certainly no exception. However, there are a number of important prerequisites that need to be in place within any industry or activity to make cost reduction actually happen. These include:

- good leadership from the top;
- clear objectives and the right values (which focus on costs, but also protect other key values such as safety and service quality);
- good quality, devolved, financial information available to all concerned;
- a culture where the status quo and previous assumptions are continually challenged;
- an organisation structure that fosters:
  - well-motivated management teams;
  - the correct organisational alignment;
  - whole organisation effort; and
  - the right speed of action;
- incentives and contractual mechanisms that encourage cost reduction;
- implementation and focus at every level;
- effective communications;
- a focus on detail and making change happen; and
- consistency of purpose over long periods.

In each area of the Study, findings have been assessed against this template, and the Study's overall conclusion is that many of the prerequisites listed above are missing within the system as it currently stands. Many different barriers have been identified, and many different recommendations flow from that. Some people have expressed the view that there is one big idea which will solve most of the cost problems (a "silver bullet"). However, the big idea they recommend is not always the same idea, and the Study inclines to the view that a solution is likely to contain a significant number of different elements. From that viewpoint, the Study has identified a range of different barriers to efficiency and has grouped them under the following Top Ten themes.

4.1 Fragmentation

The day-to-day operation of the railway is divided between Network Rail (NR), a large number of train operators, and their suppliers and contractors.

Having multiple industry players, together with misaligned incentives and the existing railway culture, has made it difficult to secure co-operative effort at operational interfaces, or active industry engagement in cross-industry activities which need to be undertaken for the common good (such as the Rail Safety and Standards Board (RSSB) and the Technology Strategy Leadership Group (TSLG)). The Study considers that this "co-operation deficit" is at least as important a barrier as the number of players. In other words, the key is to improve the ways in which the interfaces work, particularly on the ground at route level and also, where necessary, at industry level.

These effects of fragmentation are exacerbated by misaligned planning and budgeting cycles between the various players and by having, in effect, two separate regulators – in the Office of Rail Regulation (ORR) and the Department for Transport (DfT). The DfT's role in this respect is largely the enforcement of franchise obligations and fares regulation.

4.2 The ways in which the main players have operated

4.2.1 Network Rail

The large size of NR, relative to other industry players, has presented something of a barrier to effective co-operation. In addition, its operation as a single unit has inhibited the ORR from using comparative regulation – which regulators in other sectors have employed effectively.

Even more importantly, NR's heavily-centralised decision-making, its often complex and rigid processes, together with a culture which could at times seem arrogant and insufficiently concerned about the needs of its customers, have all inhibited efficient co-operation. NR has acknowledged that some of its approaches, which were probably necessary to regain control in the aftermath of Hatfield, should now be revised. NR's Transformation Programme and other recent initiatives reflect this change in approach.

4.2.2 Train Operating Companies

The Train Operating Companies (TOCs) are commercial organisations and it is perfectly understandable that they pursue their commercial interests within the framework set out for them, particularly the franchising regime. However, at times, such commercial interests appear to stand in the way of co-operation between the TOCs, and between them and NR, to enable the industry to function better as a system.

These same commercial interests, particularly within the scope of relatively short franchises, can lead to an unhelpful degree of "short-termism" in an industry that requires long-term planning for its proper development. In addition, and most importantly, the fact that the TOCs are insulated from changes in track access charges and other financial changes arising from periodic reviews means that they have no incentive to minimise NR's costs, and there is currently no effective mechanism to encourage them to do so.

4.2.3 Recent changes

Over the last year, the Study has observed significant changes in the orientation of NR and the TOCs. NR is clearly committed to change, to a new focus on its customers' needs, and to greater levels of safety, transparency and accountability. The TOCs also appear to be achieving greater coherence of views between themselves, and are showing greater willingness to work in partnership with NR.

There is a long way to go on all fronts, but the early signs are encouraging.

4.3 Roles of Government and industry

The current level of rail subsidy inevitably brings with it a significant degree of Government scrutiny and challenge. However, the fragmentation of the industry, together with the absorption by the DfT of a range of functions from the Strategic Rail Authority (SRA), has resulted in a level of Government involvement in railway affairs which many observers consider is now greater than it was under the nationalised British Rail (BR).

Within the current framework, much of the responsibility for the industry's performance, including costs, is seen to rest with Government, and the industry has not taken the responsibility that it needs to exercise for driving costs down.

A further difficulty with the current role of Government is that many decisions on regional and local issues are taken centrally without the sufficient engagement of people on the ground, either within the industry or in local communities.

Lastly, under this heading, the Study has noted that the Government could do more to be clear about what Government policy is, harmonise between different strands of policy, and make clear the links between the different levels of policies, objectives, strategies and implementation. While the Government's High Level Output Specification (HLOS) statement does set out its policy position every five years, at times subsequent decisions appear to be made incrementally without reference to that vision and to risk giving short-term responses to what are long-term needs.

4.4 Incentives

Given the cost outcomes described earlier, it seems clear that the existing incentives have been ineffective. The reasons include:

- a lack of alignment between the incentives on NR and train operators;
- insufficient focus on cost reduction;
- limited incentives on train operators to manage much of their cost base (given that track access charges and rolling stock costs are largely outside their control, and the franchise specifications are largely fixed);
- a bias in the planning system towards capital expenditure; and
- limited incentives on NR to help grow volume.

Also, there is insufficient contestability for much of NR's expenditure.

A very important side-effect of the misaligned incentives between NR and train operators is that the direct interplay between costs and revenue, which normally helps to drive business-like decisions, is severely impeded within GB rail.

4.5 Franchising

The Government's recent review of franchising has highlighted a number of barriers within the previous approach, including franchise periods which are too short, overly-prescriptive franchise agreements, insufficient use of residual value mechanisms to enable investment to be amortised across the life of two or more franchises, and insufficient risk transfer to the private sector from Government. Additionally, franchise agreements are difficult to vary in the light of emerging market developments or changes to policy, resulting in inflexibility.

4.6 Fares structures

The current fares structure has not changed fundamentally since privatisation of the railways in the mid-1990s, despite the fact that the market has changed considerably – changes have been made incrementally and the result is a structure which is complex, often appears illogical and is hard for the uninitiated (and even the initiated) to understand.

The current structure does not do some of the important things that a pricing structure should do – it does not send efficient pricing signals to the market, it does not help operators sufficiently to manage peak demand or match capacity to demand efficiently and, although fares overall are high relative to other countries, it appears that some fares are set below the level which passengers would be prepared to pay.

In addition, the industry is lagging behind other sectors in the implementation of Smartcards and other aspects of new retailing technology that are prerequisites for more flexible fares structures and for efficiency.

4.7 Legal and contractual framework

The current framework is complex. Arguably, it has adverse effects on attitudes and relationships, and engenders significant additional costs in recording and negotiating the various rights, remedies and compensations provided for within it. These adverse effects are exacerbated by the weaknesses detailed elsewhere in terms of interfaces that do not work well, incentives that are misaligned, and the relationships and culture within GB rail.

Moreover, the current legal and contractual framework, taken together with the current structure of incentives, seems to lead to too much "gaming" of the system by some players, instead of seeking real value-adding improvements.

4.8 Supply chain management

The industry spends large amounts of money with suppliers and contractors, but lags behind other industries in terms of supply chain management through:

- demand profiles which are unpredictable and that fluctuate wildly;
- relationships which are seldom truly collaborative, and often purely short term; and

- processes which fail to engage contractors early enough in the programme/project life-cycle, thus limiting the contribution from contractors and inhibiting innovation.

As Infrastructure UK has recently reported, many of these barriers are prevalent in the UK construction industry generally.

There are particular barriers relating to the supply of rolling stock because of the complex interplay between franchising, rolling stock procurement, leasing and maintenance.

4.9 Limitations on whole-system approaches

The barriers indicated above, and particularly those related to fragmentation, NR and Incentives, often lead to players within GB rail following approaches which optimise their position within their own "silo", rather than optimising outcomes for the customer or for the industry as a whole.

This makes cross-industry decision-making slow and often difficult, and arguably leads to weakness in key areas such as standards and technology development, asset management, supply chain management, programme and project management, and HR/IR management, where the system often needs to be looked at as a whole.

Similarly, a focus on dealing with an individual part of the structure has prevented the industry, and perhaps the DfT, from focusing sufficiently on the efficiency of the railway as a whole, or on the full public transport system. In looking at European comparators, the Study has noted the advantages that some of them gain through more integrated planning of timetables, infrastructure and rolling stock.

4.10 Relationships and culture

Many of the above barriers have adverse effects on relationships, which, relative to the aims of efficiency and value for money, are at times and in varying degrees unproductive, as between:

- Government and industry;
- NR and train operators;
- procurers and their supply chains; and
- employers and their staff and Trade Unions.

In addition, the barriers identified, together with the inherited characteristics of a relatively old industry, have had effects on rail industry culture which, from the Study's observation, at times shows:

- a lack of openness and transparency;
- a tendency to be somewhat adversarial;
- weak capability in terms of partnership;
- a disinclination to look outside the rail industry for new ideas; and
- limited focus on continuous improvement.

All of these factors have a bearing on the industry culture surrounding safety. They may also contribute to the perceived lack of leadership within the industry, although it is perhaps equally arguable that a lack of leadership contributes to the problems in relationships and culture.

4.11 Barriers to value for money

In addition to the above barriers for efficiency, the Study has considered barriers to value for money in the wider sense. In addressing the value for money aspects of its remit, the Study has focused on the National Audit Office definition that "good value for money is the optimal use of resources to achieve the desired outcomes".

In relation to this definition, the barriers appear to be threefold:

- first, the barriers to efficiency listed earlier;
- second, in relation to "the optimal use of resources", it is not possible at present to understand what the subsidy provided by the Government is buying; obviously it is clear how much subsidy is going to whom, but it is not clear what that subsidy is buying – in terms of train services, level of fares or infrastructure, above and beyond those which a fully-commercial operator would provide anyway; and
- third, it is not entirely clear what are "the intended outcomes" – as mentioned earlier, the Study considers that Government could do more to be clear about Government policy, harmonise between different strands of policy, and make clear the links between the different levels of policy, objectives, strategies and implementation.

The Study addresses how to overcome these barriers to value for money in Section 6.17 following.

4.12 Conclusions on barriers

The Study's purpose in setting out this extensive list of barriers is to respond to the Terms of Reference and to provide clarity as to the issues which need to be addressed. The Study does not see this list of barriers as a recipe for despair. The Study considers that these barriers can be overcome, with strong leadership and concerted effort, and the Study's recommendations set out how this could be done (see Section 6).

5. Lessons from the past

Before developing its recommendations to overcome the barriers, the Study considered what lessons might be drawn from previous railway reform initiatives.

5.1 Objectives of privatisation not achieved

The primary objective of the privatisation of GB rail in the mid-1990s is understood to have been to reduce the level of public subsidy for an industry that was seen as being in long-term and possibly terminal decline.

Other objectives are understood to have included:

- achieving greater clarity about objectives for the railway;
- reducing the level of Government involvement in railway matters;
- overcoming the industry's aversion to risk;
- creating competition;
- increasing the pace of innovation and change;
- introduction of private sector investment; and
- reducing the constraints which the Government's own fiscal position imposed upon the railway's finances.

The findings of the Study suggest that there is still quite some distance to go before these objectives are fully achieved. Lessons to be borne in mind include the need to ensure that reform addresses **all** of the measures which have to be put in place for full achievement of the policy objectives, and the need to be flexible and adapt plans to changing circumstances.

5.2 History of implementation not impressive

The Study has noted that many of the issues that it has been considering (e.g. overcoming the effects of fragmentation, improving control of costs and improving industry leadership) were addressed in the 2004 White Paper, *The Future of Rail*, and solutions were set out. However, most of those solutions do not appear to have been followed through subsequently, and the Study has been told by many observers that, despite much study and policy development over many years, the history of implementation in the GB rail industry has often not been impressive.

A lesson to be learned is that there needs to be a very clear focus on implementation, with change agents independent of the main players, if substantial change is to be brought about.

5.3 Evolution rather than revolution

The history of change in the rail industry over the past decade and a half suggests strongly that change needs to be planned carefully. The industry has demonstrated its ability to carry through a lot of change, but there are limits to the volume of change that can be handled at any one point in time.

Accordingly, while the Study believes that a large amount of change is necessary, the change must be planned carefully, should generally be designed to be evolutionary rather than revolutionary, and should be phased over a period of time, aiming to have almost all of the benefits delivered within five to seven years.

6. Recommendations

In developing its recommendations, the Study has considered carefully the approach that should be adopted, particularly in the area of structures and incentives. Arguments have been put to the Study that very radical change is needed – at the extreme, some people have argued that there should be rapid moves towards the introduction of full private ownership, particularly of Network Rail (NR), and others have argued that the solution lies in renationalisation. The Study has no political or "theological" view on such options, but, on practical grounds, does not favour such more radical changes, for these reasons:

- as mentioned previously, evolution rather than revolution is favoured, with a primary focus on adapting existing structures so that the interfaces work better; and
- it is clear that the "present value" of the efficiency improvements that can be made would be severely reduced by the time and effort required (e.g. for legislation), and by the reorganisation and disruption caused by either of these more radical approaches, quite apart from the enormous costs that could be involved in renationalisation.

The Study's recommendations envisage major change, but change that is designed, as far as possible, to adapt existing structures rather than to sweep them away, and to focus the efforts of all concerned primarily on the areas where efficiency can be improved rather than on total reorganisation.

What follows is a synopsis of the Study's principal recommendations which are set out fully and in much greater detail in Level Two of this report, available on-line at www.dft.gov.uk/rail-value-for-money.

The Study recognises that the recommendations in the report have important linkages with Scotland and Wales. The devolved administrations share a common interest in securing value for money and the Department for Transport (DfT) will need to work closely with them to secure as consistent approach as is necessary.

6.1 Industry objectives, strategy and outputs

The Study has concluded that Government and industry processes for setting objectives and strategies should be reformed to give a clearer line of sight between high-level policies and the delivery of outputs on the ground – and that there should be a sharper focus on cost reduction. The roles of Government and industry in this area should be defined more clearly and, as part of this, the private sector should be given improved incentives and tools to encourage innovation and efficiency, both in its commercial activities and in delivery of the outputs specified by Government.

6.1.1 Clearer hierarchy of policy, objectives and strategies

Clarity as to what the industry is intended to deliver requires a set of aligned and explicit policies and objectives, including objectives for cost reduction. This requires rail policy to be integrated with wider strategic and sectoral requirements (within rail, and between rail and other transport modes), so that there can be a clearer linkage between rail expenditure and the delivery of key

priorities. There also needs to be a clear set of strategies as a basis for the delivery of these objectives and priorities.

This whole structure of policies, objectives, strategies and implementation needs to be harmonised vertically and horizontally, and the system for investment appraisals should be aligned accordingly, via benefit–cost ratios and a greater emphasis on cost reduction. The structure should also develop a longer-term planning perspective for those elements for which this is required.

6.1.2 Clearer definition of the roles of Government and industry

In broad principle, Government should determine **what** the rail industry should deliver, and the industry should determine **how** this is to be achieved. Accordingly, Government should decide the overall policy direction, the level of funding available, and the outcomes and objectives it is seeking. It should be for the industry (and the regulator) to deliver within those parameters.

Government should also, in conjunction with the ORR and industry, review periodically the efficiency and productivity of the railway system as a whole, and address any areas where a change in approach is required. Such reviews might be best carried out in conjunction with the HLOS process.

Individual companies will naturally pursue their own commercial objectives – within the framework of franchises, licences and incentives established by Government and the Office of Rail Regulation (ORR). It is essential that this framework is such that it is conducive to the delivery of the objectives that Government has set.

In addition, the Study considers that the rail industry needs to be more actively engaged in developing those strategies that are necessary at industry level to ensure that Government objectives can be delivered. In particular, the industry must ensure that the prerequisites for cost reduction, for example more effective approaches to technical innovation and to capacity utilisation, are in place at industry level.

6.1.3 Retain the HLOS/SoFA process, with an explicit objective for cost reduction

The Railways Act 2005 established a requirement for Government to specify the outputs required from the railway industry. The Secretary of State and Scottish Ministers will be required to provide a further High Level Output Specification (HLOS) statement in 2012 as part of the Control Period 5 (CP5) Review Process. It is widely recognised that the process adopted for the first HLOS was generally successful, especially as it was the first iteration, although the clarity it provided was somewhat eroded by subsequent changes of direction.

The 2007 HLOS included metrics for performance and capacity. The Study considers it appropriate that the HLOS/Statement of Funds Available (SoFA) process should be retained and should include a specified target for cost reduction.

The Study also recommends that the DfT should address the need for a degree of longer-term planning, as some elements, particularly infrastructure and rolling stock, require a consistent, long-term financial and policy horizon, notwithstanding the occasional vagaries of financial and political imperatives. It is clear that a number of the industry's current challenges stem from a lack of strategic long-term thinking in the past, and this problem needs to be addressed.

6.1.4 Franchising

The Study supports the DfT's ongoing development and reform of passenger franchising, including presumptions in favour of longer franchises, simplifying service specifications, and changing the revenue support system.

The Study recommends consideration of some additional elements, focused mainly on stronger incentives for Train Operating Companies (TOCs) to reduce unit costs, including:

- closer alignment and partnering with infrastructure providers;
- possible use of price-based specifications – inviting bidders to propose levels of service within a defined level of subsidy;
- stronger incentives for unit-cost reduction, for example through contractualised unit-cost reduction profiles;
- up-front payments, instead of performance bonds;
- periodic reviews by the ORR of some franchise parameters and commitments, and benchmarking of TOC and Rolling Stock Company (ROSCO) costs by the ORR;
- greater opportunity and incentive for Passenger Transport Executives (PTEs) and/or local authorities to influence outputs; and
- consideration of a "Northern region" as part of the refranchising process, in conjunction with a wider review of the franchise map.

6.2 Leadership, planning and decision-making

One of the key barriers identified above is the fragmentation within the rail industry, including a lack of co-ordination and clarity as to who is responsible for planning and delivery. The Study's recommendations are based around enabling industry to develop its own responses and structures that will deliver the efficiencies required. The effective leadership that this needs has to come from within the industry itself.

6.2.1 Industry to establish a Rail Delivery Group

The Study is strongly of the view that the rail industry needs to be given, and needs to accept, greater responsibility for its own future.

The Study therefore recommends the establishment of a Rail Delivery Group (RDG) with responsibility for cross-industry leadership of a substantial programme of change. Characteristics of the RDG should initially include the following:

- A focus on "making happen what would not happen otherwise" – the group must avoid becoming a talking shop or creating a large bureaucratic structure.
- Sustained commitment from a core group consisting of nominated CEOs, or Executive Board Members, from the major TOC-owning groups, NR and a freight operator, working with a wider coalition, including representation from other operators, the rolling stock sector, and other suppliers. Mechanisms for establishing a dialogue at industry level with the Trade Unions should also be explored.

- Staff support would be provided by member companies and the Association of Train Operating Companies (ATOC) as necessary and this, combined with a central Change Team (see Section 9.1) would provide sufficient resources to take actions forward expeditiously.
- A principal focus for the RDG would be developing, validating and monitoring the implementation of plans for delivery of the cost savings identified by the Study – an important focus within this theme should be addressing the issue of train utilisation referred to earlier.
- The RDG should encourage whole-system approaches where appropriate, and should initiate a move towards more integrated whole-system planning of timetables, infrastructure and rolling stock, so as to improve the efficiency of the railway system as a whole.
- The RDG would seek to work with existing cross-industry bodies, leveraging their capabilities and seeking to adapt or enable them to operate with greater speed and effectiveness. Activities of all existing cross-industry groups should be reviewed for their effectiveness by the RDG, and some new activities should be established, for example a National Safety Task Force and a Rail Systems Agency (RSA).
- The RDG should also seek to encourage a change of culture within GB rail – towards partnership, openness and continuous improvement.
- Arrangements for effective interfaces between the RDG, the DfT and the ORR would need to be defined.

The RDG's role would need to be exercised in ways that are independent of the interests of indvidiual members and that are non-discriminatory.

6.2.2 Move away from "predict and provide"

The Route Utilisation Strategy (RUS) process, while successful in developing cross-industry plans, has tended to lead too easily to capital and infrastructure solutions. There is a need to ensure that a full range of whole-system options is considered and that the financial implications of these options are clearly understood.

The Study considers that, in common with other transport sectors, there should be an end to "predict and provide" in the rail sector, and there should be a move towards "**predict, manage and provide**", with a much greater focus on making better use of existing capacity. The Study therefore recommends that the HLOS process, and the ORR's and NR's current review of the RUS process, should place new emphasis on making better use of existing capacity including, where appropriate, demand management. This should be supported by the development of new approaches, new incentives and new metrics to improve capacity utilisation.

The Study also recommends that the DfT's current review of its appraisal guidance should give greater prominence to the financial costs and benefits of projects.

6.2.3 Encourage cost-effective whole-system solutions

Fragmentation in the industry is one cause of the bias towards infrastructure solutions, not least because such expenditure can be relatively painlessly added to the Regulatory Asset Base (RAB). The industry must move more towards identifying the optimal "whole-system" solutions that cut across organisational boundaries.

To do this, early cross-industry engagement should be mandated as part of the project development process, for example NR should include early TOC engagement as part of the

Governance for Railway Investment Projects (GRIP) process. To support this there should be a single regulator (the ORR) to monitor whole-industry outputs (such as operational performance) across train operators and NR, and to publish whole-system costs and revenues. Mechanisms also need to be put in place to identify, monitor and manage whole-system costs and revenues within the context of individual routes and franchises.

6.2.4 Streamline industry planning processes

Current industry planning processes include a certain amount of duplication. For example, the DfT develops specimen options to meet the HLOS so that it can identify high-level cost estimates. This duplicates work undertaken by the industry, in particular the Planning Oversight Group. The Study recommends that the DfT should work with industry to avoid duplication.

6.2.5 Devolve decision-making

The high degree of Government involvement has led to too many decisions being made remotely from the market – and even where decisions are devolved to industry, they are too often taken centrally within organisations, for example within NR. Decision-making should, to the greatest extent possible, be taken by the parties who operate the network, and at the levels within the industry which are closest to the market, implying:

- less prescriptive franchises to allow TOCs to react to the market;
- decentralisation within NR to facilitate increased decision-making at a route level; and
- greater localism, with more involvement in England of local authorities and/or PTEs, with local decision-making brought more closely together with budget responsibility and accountability.

Greater devolution should support increased partnership working, which could be strengthened further by:

- better alignment of incentives, and of operational and planning decisions; and
- specific licence requirements for collaborative working, and streamlined industry change and consultation processes.

The RDG, the DfT and the ORR should work together to encourage and support devolved decision-making.

6.3 Structures, interfaces and incentives

The number of parties involved in delivering rail services requires close co-operation and alignment within and between organisations. The Study considers that the current structures can be reformed to improve the operation of the interfaces, in parallel with providing stronger incentives to focus on cost reduction and the delivery of high-quality services.

The Study has adopted the following guiding principles in developing its recommendations:

- Success in reducing costs depends above all on how well the various rail organisations and their people work together – in particular NR and the train operators. The industry and its suppliers also need to have much more effective partnerships.
- There needs to be better alignment of organisations and of their objectives and incentives, particularly between NR and the TOCs.

- There should be greater devolution/decentralisation, particularly in NR, but on a basis that is compatible with running an effective single rail system.
- There must be proper protection for freight and other operators.
- There must be recognition that "one size does not fit all".
- A "big bang" approach should be avoided, i.e. avoid immediate total change in all structures.

These principles should allow a move towards a more effective set of long-term relationships.

6.3.1 Devolution and decentralisation within NR

The Study considers that, above all, better value for money depends on how the various rail organisations work together to reduce costs, and there needs to be more effective partnership working. The Study supports strongly the already-announced proposals by NR to move towards a more devolved and decentralised structure for its operations. The Study considers that this structure might reflect twleve routes (the existing nine routes, plus Merseyside, Wales and Northern).

Devolution will bring delivery closer to operators, and will enable the comparative regulation of route performance in both financial and operational contexts. This will underpin the wider reforms proposed to industry structures and interfaces. However, the Study recognises that there may be economies of scale in maintaining some central infrastructure management functions, such as procurement and heavy plant. These should remain with a central NR structure which would facilitate seamless operation of the network, ensure best use of network capacity, and provide system-wide co-ordination and assurance, as well as certain central support activities. NR's assurance role in the transition to a more devolved structure would be particularly important.

6.3.2 Diverse "ownership" of route infrastructure management concessions

There is no reason why all of the devolved infrastructure managers need to be controlled by a single company. Indeed, there are many advantages to diverse ownership or management. Most of NR's current operating routes are comparable in size and activity to many smaller European networks, and the ability to benchmark the efficiency of domestic comparators would further strengthen competitive pressure for affordability and efficiency.

Accordingly, consideration should be given to the central NR structure being more like a holding company, with route-level concessions operated by its subsidiaries or managed by other organisations. The Study considers that one route-level concession should be let to an independent asset management company by 2014/15. Such concessions should, however, be aligned with the relevant TOCs as described in section 6.3.3 following.

6.3.3 Alignment of route infrastructure management and TOCs

As identified throughout the Study, one of the key issues is securing alignment among relevant parts of the industry. The industry currently lacks a clear and effective supply chain that starts with the needs of the customer (passenger and freight) and focuses the main efforts of infrastructure management and train operators on meeting these needs – the realignment of structures,

interfaces and incentives proposed by the Study is aimed at meeting those customer needs in a cost-effective manner.

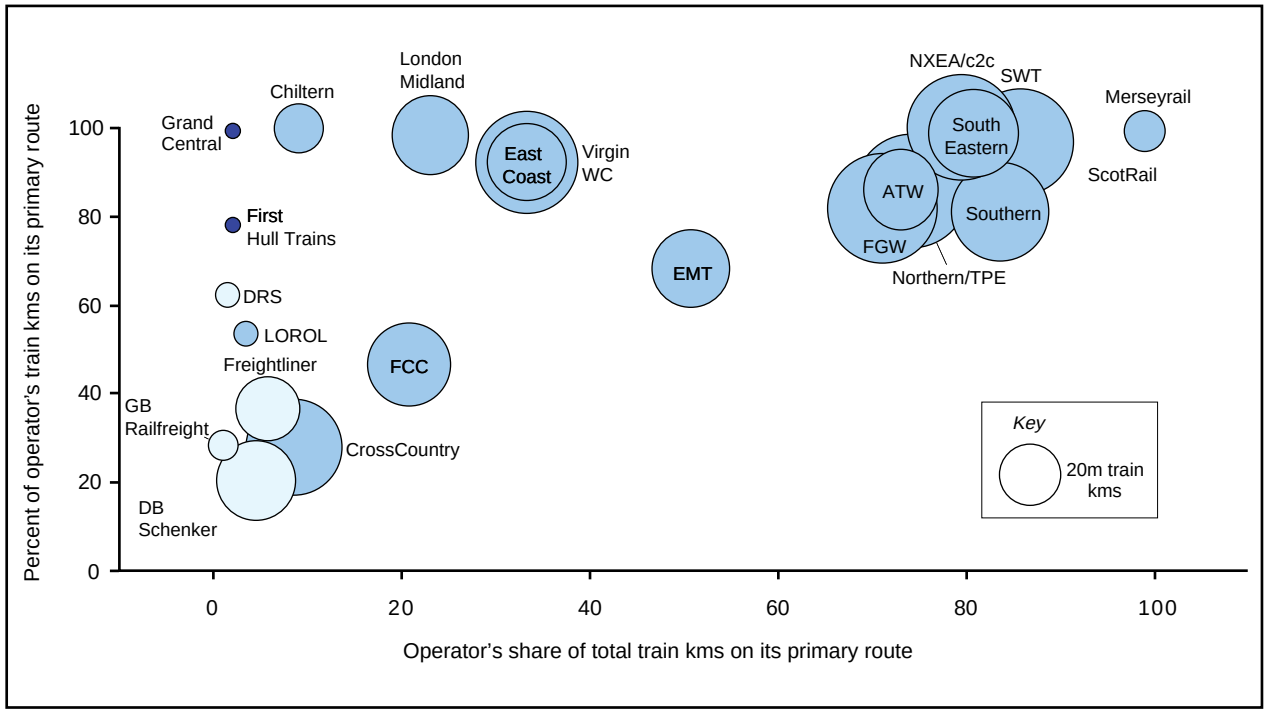
At present, train operators do not have strong alignment with NR in terms of incentives or structures, but devolution and horizontal separation of the infrastructure management functions will increase the scope for whole-industry solutions to emerge. It is vitally important that the infrastructure managers (IMs) and the train operators have a commercial interest in each other's cost and revenues, and the Study sees three levels of potential alignment:

- minimum – cost and revenue sharing, and joint targets between NR and train operators;
- intermediate – joint venture/alliances between NR and train operators; and
- maximum – full vertical integration through a concession of infrastructure management and train operations combined.

The Study does not believe that there is a system-wide presumption in favour of any one of these levels of alignment, and that it is more a matter of "horses for courses". Within existing franchises it will be for NR and the relevant TOC(s) to determine the choice of approach, with the DfT and the ORR deciding, for future franchises, which approaches and proposals offer the best value for money. The DfT and the ORR should drive this process of closer alignment proactively, and should ensure that meaningful cost and revenue sharing is present as a minimum in all new franchises. The motivation for operators to develop or participate in these new forms of alignment will be to share in the efficiency gains that closer joint working can make possible, and to establish a track record of success with this approach.

How this evolves depends on operating route characteristics, particularly the extent to which there is one dominant train operator, as illustrated in Figure 6.1. The franchises in the upper right-hand corner are those that have the closest match between dominant train operators and routes.

Figure 6.1: Train operator share of total train-km per primary route



In some cases there may be a strong case for vertical integration, for example where there is one dominant franchised operator, but, in others, intermediate levels of alignment, or cost/revenue sharing, may be appropriate. The Study recommends that the aim should be to have at least two joint ventures or alliances in place by 2013/14 and at least one vertically-integrated pilot in place by about the same time, subject of course to these being demonstrated to represent value for money compared with other approaches.

It may be possible to pilot vertical integration for Anglia in 2014, although a significant amount of work will be needed to meet that timescale. If, for reasons of timescale, Anglia is not possible as a pilot, then another substantial franchise and route, whose characteristics are suitable for vertical integration, should be identified for introduction around the same 2014 timescale.

Cost and revenue sharing, and joint targets, should be the minimum for all new franchises, and should be encouraged by the DfT and other franchising authorities in existing franchises where possible.

6.3.4 Safeguards for other operators

The rail network is complex; each route has a number of train operators with rights to run trains over it – and there will always be services that cross route boundaries. However, existing legal and regulatory safeguards provide a basis upon which non-discriminatory access and planning can be built, with legal and financial enforcement built in. Multi-operator routes have existed successfully in the past; there is no reason why the evolving industry structure cannot respond appropriately.

There are a number of ways in which this can be achieved, including regulatory supervision, legal safeguards, appropriate incentives, and ensuring that cross-industry functions such as timetabling are co-ordinated and undertaken by a central NR function. The Study's proposals in this regard are referred to in Section 6.10 and are detailed in the Level Two report.

6.3.5 Improve incentives on NR and TOCs

It is essential that both NR and TOCs are incentivised effectively to drive efficiency and to push for change.

At present NR is a single national monopoly with currently weak corporate financial incentives, partly as a consequence of its financial structure. The package of changes proposed by the Study will provide much stronger incentives for the IM to deliver improved value for money. These could include:

- comparative regulation of devolved NR routes;
- introducing a degree of independent ownership of route IM concessions;
- much closer alignment of NR and TOC incentives;
- the potential, once industry structures stabilise and costs reduce, for the introduction of private investment; and
- improved corporate governance, and a more transparent management incentive programme within NR, focused on the key outcomes that its customers, the ORR and Government want to see delivered.

The timing of many of these changes is likely to be determined by practicality and the need to achieve evolutionary changes rather than a single "big bang".

In parallel, through franchising reform, the DfT must strengthen the incentives on train operators to reduce costs and to co-operate more effectively with NR towards that objective. This might include:

- changes to franchising, e.g. longer franchises, use of output-based specifications giving operators greater flexibility, contractualised unit cost profiles, and cost benchmarking of TOCs;
- extending the number of joint targets, building on the success of Joint Performance Improvement Plans (JPIPs) and the recently-introduced Joint Network Availability Targets – these could include targets for cost reduction and customer satisfaction;
- the ORR reviewing the existing financial incentive mechanisms in track access contracts (Schedule 4, Possessions, and Schedule 8, Performance Regimes) to ensure that TOCs and NR have joint incentives to improve outcomes rather than simply protecting the status quo; and
- the ORR reviewing cross-industry incentives towards capital expenditure and, in particular, whether the Regulatory Asset Base (RAB) ensures that all parties, including NR, Government and train operators, have an appropriate balance of incentives between capital and operating expenditure.

6.3.6 Improved incentives for efficient enhancements

The Study considers that there needs to be a significant increase in the contestability of enhancement expenditures. While much expenditure is already subject to competitive tender, there is often a lack of contestability in the design and development stages of projects, and insufficient early engagement with train operators, contractors and suppliers.

There is also scope for greater risk-sharing between NR and other parties, for train operators to take forward the delivery of some enhancements, for increasing the use of funds (as was done successfully with the National Stations Improvement Programme) and for earlier and deeper involvement of TOCs in the HLOS process. There may also be scope in some cases for revenue-supported enhancements, i.e. enhancements paid for by increased fares or other revenues.

6.3.7 Improving incentives and clarifying responsibilities for the efficient management of capacity

The Study considers that industry, together with the ORR and the DfT, should review incentives and responsibilities for the efficient management of capacity. There needs to be at least as much focus on train utilisation (the number of passenger km per train km) as there is on track utilisation (the number of train km per main track km). Existing approaches appear to focus much more on track utilisation and the provision of train paths, but whilst that is important, the unit costs of carrying passengers are influenced heavily by train utilisation, which does not appear to be a primary focus for any organisation within the present system.

A review of this area should be led by the Rail Delivery Group, including NR the system operator, and should also involve the ORR and the DfT. The DfT's approach to specifiying franchises should be covered as part of the review. New measures of capacity utilisation are also likely to be required.

6.3.8 Competition and contestability

The Study's recommendations identify opportunities to increase contestability in a number of areas of infrastructure management, as well as proposing the introduction of diverse ownership of

route-level concessions for infrastructure management. Recent policy statements by NR support an increased level of contestability within its activities.

Increasing the levels of on-rail competition (e.g. through expanding open access operations) have advantages in principle, but still faces unresolved problems in terms of potential effects on Government revenues from franchises, and the difficulty of achieving much closer co-operation between TOCs and infrastructure managers if the number of train operators were to increase significantly.

6.4 Fares and other revenue

The Study has not undertaken a full review of fares policy, but has considered fares structures only in relation to their effect on value for money in the rail sector. It has therefore focused on these main issues:

- the scope for fares regulation to encourage relatively less travel during peak times and relatively more travel off-peak and, in so doing, to address a key driver of costs –the need to provide additional capacity to service peak needs, which is then under-utilised in off-peak periods;
- the extent to which fares regulation constrains the ability of train operators to take commercial decisions which can make better use of capacity; and
- the implications of fares structures and ticket retailing systems for efficiency and value for money, not least from the passenger viewpoint.

On that basis, the Study makes the following recommendations.

6.4.1 The DfT should undertake a full review of fares policy

Fares policy, with the exception of changes to the Retail Prices Index (RPI) + x% cap on permitted increases, has remained largely unchanged since privatisation, despite significant changes in rail markets. The DfT should undertake a full review of fares policy and the current fares structure, addressing the overall complexity, anomalies, regional imbalances, season ticket pricing and all other relevant factors as these are affected by regulation. The overall aim would not be to see fares rise overall, but to move towards a system which is seen to be less complex and more equitable, and that provides information which passengers can understand and have confidence in.

6.4.2 Fares policy and demand management

The review of fares policy should focus, in particular, on how fares structures can be used to aid management of peak demand. It is clear that a major driver of cost in GB rail is the provision of capacity to meet peak demand, and yet, as explained earlier, the level of train utilisation in GB (passenger-km per train-km) is lower overall than comparators.

More flexible fares structures, and the use of "intelligent ticketing", could assist in making better use of capacity, and thus help improve efficiency. One of the areas that should be considered is the possibility of reducing the coverage of Off-Peak/Saver fares regulation, particularly where operators are competing with other modes of transport, for example on InterCity services. This could improve the use of existing capacity and help manage artificial demand peaks, which are caused by current fares structures.

The Study does not recommend an increase in fares revenue overall, but instead envisages some fares increasing and others decreasing correspondingly, within the same revenue total.

6.4.3 The DfT to work with the industry to accelerate Smartcards, other retail technologies and other retail locations

The vast majority of journeys on the rail network are still made using card tickets. The use of Smartcard technology, especially for frequent urban-based travel, and other mechanisms (mobile ticketing, print-at-home) will increase access and demand for the rail network while enabling more efficient and lower retailing costs. Very importantly, this technology will enable "intelligent ticketing", opening up opportunities for more responsive pricing in peak hours, and will thus aid demand management. The Study also sees scope for making internet bookings easier for the customer, and for extending the range of ticketing retail locations.

The DfT should mandate these developments in all new franchises, and ATOC should promote best-practice in terms of technology and in the clarity and transparency of behind different ticket prices.

6.4.4 Regulation of fares should be an ORR responsibility, within policy set by Ministers

Fares policy is properly an issue for Ministers, especially as the industry receives significant public funding. However, the Study considers that the monitoring and enforcement of rules on fares should be transferred to the ORR, who would operate within clear policy guidelines from the DfT. This would facilitate a single regulatory view of industry economics.

6.4.5 Improved focus and incentives for property sales and development, and other ancillary revenue opportunities

The rail industry was extremely effective during the 1980s and early 1990s at exploiting its property portfolio, resulting in increased funding that provided major improvements to the network and stations. Such activity needs to be incentivised to encourage exploitation or disposal of surplus assets, particularly unused freight sites, accepting that some sites may need to be safeguarded for future rail development. The Study recommends that there should be a liberalisation of the property management regime, particularly in relation to surplus freight sites, to encourage commercial exploitation and development, including improving car-parking provision across the network.

The DfT and industry should also work together to exploit other ancillary revenue opportunities.

6.5 Asset management

As a capital-intensive industry, GB rail requires effective management of both in-service and new assets. Indeed, asset management is a primary role of NR and the Rolling Stock Companies (ROSCOs). At present, however, there not a clear line of sight between industry objectives and individual decisions, and there is not yet an adequate information base to allow fully informed decisions and trade-offs around infrastructure, rolling stock and capacity. Improvements in asset management are needed to support the structural reforms proposed by the Study, including a number of specific recommendations that will deliver efficiency through better integration and better visibility within the decision-making process. Indeed, this area, in conjunction with supply chain management, offers the principal scope for cost savings.

6.5.1 Rail Delivery Group to ensure that high-level frameworks for asset management are defined for the industry as a whole

One of the functions of the RDG should be to ensure that an industry-wide asset management strategy and framework are developed. Clearly NR would play a major role in these developments. This would enable route-level asset managers to develop and implement local plans, consistent with meeting strategic and licence obligations, and could facilitate a move away from calendar-based maintenance and renewals. Different maintenance and renewal policies could be applied to critical, as opposed to non-critical, assets, this reducing the number of inspections and associated costs.

6.5.2 New route-level organisation structure to provide better alignment between local decisions and high-level objectives on a whole-system basis

The changes outlined earlier to structures will be effective if asset management is devolved to routes within a clear framework which protects the integrity and long-term sustainability of the rail network. The availability of good asset information, and clear links to overall infrastructure and industry strategy, will enable asset managers to adopt cheaper maintenance approaches. This will reduce renewals and maintenance costs either through reduced unit costs or increased time between maintenance.

6.5.3 Accelerate the adoption of good-practice asset management approaches

A streamlining of industry processes is necessary for the development of best-practice within asset management, as with many other railway activities. Creating a clear incentive structure and opportunities for sharing risk and reward can create a climate where parties are incentivised to work together to review and, where necessary, challenge existing practices. This should encourage the adoption of more lean and agile engineering approaches. This will reduce direct and overhead costs by identifying and removing activities that do not add value. It could also increase the period between maintenance, as less time needs to be factored in to cope with decision delays, enabling a reduction in staffing and materials costs.

6.5.4 Central analysis of information and information quality, centre of excellence and common services

Asset management, having system-wide implications, requires a strong central knowledge base and best-practice framework, particularly given the interaction with European standards and the need to share asset information in a transparent way across the industry. Although much progress has been made since NR was established, the industry, and NR in particular, still needs to complete a fully comprehensive and accurate information base on asset condition.

6.5.5 Upgrade staff awareness and competencies

Effective asset management requires appropriately-empowered, competent and engaged staff. A programme of training, secondments and professional development at all levels of the industry is recommended.

6.6 Whole-system programme management

Current GB rail enhancement programmes do not consistently exhibit whole-system thinking and sometimes confuse allocation of authority, responsibility and accountability across the industry. The line between funder, client, sponsor and delivery agent is blurred and there are weak incentives to cut whole-system costs or come up with best value solutions. Despite some good examples, there is a general lack of broader good practice in programme management and in particular a tendency to commit to one particular solution too quickly and before it has really been tested against other options. There is also insufficient recognition of the different maturity of programmes that are packaged into five yearly control periods.

6.6.1 Build on examples of good programme management, and reform poor practices

The Study believes that there are opportunities from better programme management and from exploiting the changes recommended elsewhere in the Study. These are centred on the development and implementation of a best-practice framework, including:

- a portfolio of enhancement programmes that align with a clear industry strategy;
- clearly understood interfaces between programmes;
- a clear problem statement and sponsor role;
- early evaluation of a comprehensive range of possible solutions;
- a focus on whole-system solutions;
- the progressive reduction of key risks;
- the sufficient integration of different elements of project design;
- integrated programme teams;
- whole-system programme governance;
- formalised stakeholder management; and
- clarity on the roles of funders, beneficiaries and delivery partners.

This framework does no more than state known best-practice principles, but it is clear that these principles are not applied consistently on rail programmes. The framework should be introduced progressively and fully on all projects and programmes, with sponsorship from industry, particularly NR, and from the DfT.

6.7 Supply chain management

GB rail procurement has a very uneven demand profile, coupled with a short-term approach to relationships and investment with poor cost transparency. There is poor application of supply chain management, including a poor take-up of collaborative approaches around the high-risk and high-value procurements. This has, in part, been due to a failure to develop the right culture and behaviours, especially at senior management level. There is a lack of supply chain management skills and experience in the rail sector, with an emphasis on behaviours that are geared to traditional competitive procurement alone. Procurement practice is variable, with the buyer often far removed from the end user, protracted and inefficient tendering processes, and barriers preventing new suppliers from entering the market.

6.7.1 Stronger incentives to reduce costs while improving outcomes

Current approaches to planning and procurement appear to drive up costs within the supply chain. The provision of greater clarity of projected demand will enable the supply industry to resource appropriately and to avoid the peaks and troughs in demand that have resulted in cost inflation and inflexibility to meet emerging demand. This does not imply a centrally-driven procurement activity, but placing the industry in a position where all parties have appropriate confidence in planning horizons.

6.7.2 30-year whole-system planning horizon (where appropriate) to inform shorter-term planning cycles

Railway assets tend to have a long life and, therefore, decisions taking place in the near-term have ramifications that extend well beyond individual company and Government planning horizons. There is a need to provide indications of the likely long-term quantum of key elements of procurement, both with respect to infrastructure and rolling stock, to enable better planning and decision-making. This links back to earlier recommendations on strategy and planning (Sections 6.1 and 6.2).

6.7.3 Clear leadership to drive best-practice

The rail industry has much to gain from modernised procurement practices. The RDG can help to promote best-practice and to identify what is required from the supply chain. In particular, the industry needs to move towards earlier involvement of suppliers and contractors before specifications are frozen, towards closer involvement of contractors in delivery teams, and towards better visibility of forward workloads. Suppliers should maintain an open dialogue with the industry and funders to identify opportunities for efficiency in procurement and synergies, for example where route-based activities can be better serviced through re-phasing or the common acquisition of key outputs. The Study welcomes the plans announced recently by NR to improve engagement with suppliers and contractors.

6.7.4 Improved staff competencies and behaviours

Effective supply chain management requires leadership from senior management delivered by appropriately-empowered, competent and engaged staff. A programme of training, secondments and professional development at all levels of the industry is recommended.

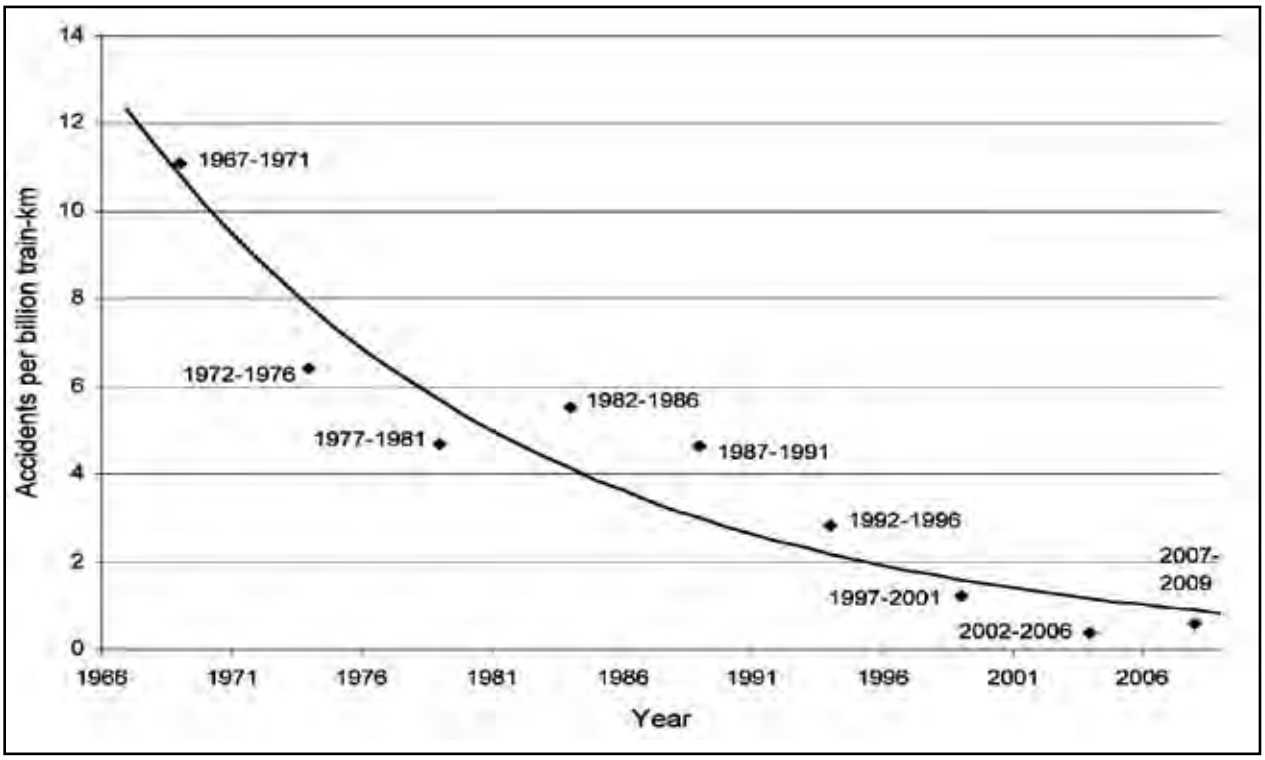
6.7.5 Improved supplier assurance processes

The rail supplier assurance process is cumbersome, and gaining recognition as an established and "approved" supplier is seen as a barrier to entry by suppliers. Accelerating the introduction of a new Supplier Assurance Framework is recommended to reduce the cost and time to assure new suppliers.

6.8 Safety, standards and innovation

The GB railway has a good safety record, as shown in Figure 6.2 from analysis carried out by Professor Andrew Evans of Imperial College, London.

Figure 6.2: Fatal train accidents per billion train-km



However, although the GB rail industry is safe and getting safer, the Study found that this was achieved through an excess of process, and procedures that failed to incorporate modern management thinking on continuous improvement in safety.

The lack of an effective system-wide approach to technical issues had delayed some projects and caused others to be delivered at excessive cost. The industry's attitude to standards was often to use them as a defence mechanism against change, while the evolution of standards was found to be a slow and cumbersome process.

Each of these issues contributed to the GB rail industry's poor record on innovation, despite the efforts of some industry bodies such as the Rail Safety and Standards Board (RSSB).

6.8.1 Rail Delivery Group to provide and encourage clear safety leadership and further improvements in the rail safety culture

The Study recognises the substantial improvements in the industry's safety record that have been achieved over the last two decades, but believes that even more can be achieved.

The Study recommends the creation of a National Safety Task Force (NSTF) that would be structured and staffed in the same way as the National [Performance] Task Force.

The NSTF would be guided by the RDG and supported by the Rail Systems Agency (RSA). It would provide clear and credible leadership for safety and risk management. It would increase the focus on occupational health and encourage the industry to introduce behavioural safety programmes at the local level, and would encourage the application of professional guidance on managing risk.

In addition, the NSTF would encourage a peer-review process for the industry to allow the benchmarking of safety and risk management processes, it would encourage the greater transparency of data and information that would help the industry learn and improve safety, and also discourage undue risk aversion, lack of individual accountability and excessive "double-checking" in safety management.

The Study believes that creating more coherent leadership in safety is not something that has to wait for any structural, contractual or political developments. It is within the power of the industry to make this change – it does not require the involvement of administrators, regulators or other bodies, and it should not cut across the obligations and duties of industry operators.

The industry should come together at the highest level to provide a clear message on safety and to give impetus to the drive for continuous improvement. The creation of an NSTF, building on the success of the National [Performance] Task Force, should be an early priority.

6.8.2 A Rail Systems Agency

A radically more effective approach to system-wide technical challenges is needed. Tinkering with the existing, multi-organisational, silo-based approach will be insufficient, especially as the industry has failed to engage fundamentally on system-wide issues despite the endeavours of cross-industry bodies such as the RSSB, or committees such as TSAG.

The Study recommends the creation of a Rail Systems Agency (RSA), working under the direction of the Rail Delivery Group (RDG). It would lead on system-wide issues, combining the activities of the technical and professional functions in the DfT, NR and the ORR with the RSSB. The RSA would be regulated by the ORR.

It would identify new operating practices or technologies employed in other railways, transport modes or industries, and would monitor, analyse and report on overall system safety performance, and respond as necessary to system-wide safety recommendations. It would undertake planning and appraisal around system-wide technological initiatives, and take on a system authority role for individual cross-industry projects.

The RSA would be the focal point for tackling the standards issues that are evident. This would be achieved through leading the development of common standards that build on the RSSB's work in the management of Railway Group Standards, and through taking responsibility for selected

NR company standards. This process would identify those standards that are no longer required to operate a value for money railway.

It would drive improvement in the industry's information systems (IS) capability, where the Study has identified a number of problems with existing IS architecture and the inability to exploit new technologies and systems.

The RSA would seek to make progress through consensus, but with the ability to impose a solution with demonstrable system-wide benefits after a sufficient period of consultation and debate, and with mechanisms to compensate any parties that would suffer significant financial detriment. It would consult with the industry in accordance with regulatory best-practice, and its decisions would be open to challenge and appeal through a defined, but time-limited, process.

6.8.3 Encouraging innovation

The Study recommends the creation of a leadership group to drive innovation in the industry, drawing on models that have been used in the aerospace and automotive sectors, potentially to be known as the Rail Innovation and Growth Team (RIGT). It would focus on encouraging industry parties to innovate through identifying technological opportunities, showing where and how those parties could obtain returns for their investment, and would operate under the direction of the RSA.

The RIGT would research and highlight potential areas for innovation, and match potential innovators with gaps in the market in areas such as IS, retailing and rolling stock, while recognising that innovation is not just about new technology, but also relates to processes and business ideas.

6.9 People

The industry's people have played a key part in the achievements of recent years and are fundamental to the industry's future success. However, staff represent a major cost element in the industry, approaching £4bn a year, and this area cannot be immune from the changes that the industry has to make. Yet many of the working practices and agreements within the industry have not undergone significant change for many years, if not decades, and the salary levels of the workforce, including top management, have increased faster than average earnings in the economy as a whole.

The industry has historically had a somewhat confrontational approach to employee relations. The rail industry is strongly unionised, which creates a heavily structured environment for making progress on people issues. The industry has very complicated and extensive terms of employment, with marked differences between groups of staff and between employers.

The Study's recommendations would inevitably lead to significant changes for the people in the rail industry. The negotiation of these changes will require the full involvement of all industry players with their staff and their representatives. This is not a time-limited obligation; it must be undertaken from the beginning of the process right through to the end. Improved employee relations will make the industry better able to handle the significant changes that the Study envisages. This is a key enabler to many of the recommendations identified in this report.

Government and the ORR will need to set overall industry policy, offer guidance, provide support, and put in place incentives and contractual mechanisms that encourage change, but the delivery of change rests primarily with individual companies and employers, and through their processes of consultation and negotiation with staff and trade union representatives.

6.9.1 On-train staff

Driver Only Operation (DOO) is a safe method of operation and improves performance, with fewer human interactions involved in the door opening, door closing and dispatch procedure.

The Study recommends that the default position for all services on the GB rail network should be DOO, with a second member of traincrew only being provided where there is a commercial, technical or other imperative.

6.9.2 Retail

In determining the retail offer, TOCs should take into account the need to better match trends in demand, the capability of modern retail technology and the societal trend for the automation of purchases.

The Study recommends changes to ticket office opening hours and staffing, but acknowledges that there will be a number of preconditions, including:

- the installation of modern and easy-to-use ticket vending machines (TVMs);
- the provision of simple internet portals for on-line purchases;
- establishing additional retailing locations;
- the extension of print-at-home and mobile ticketing; and
- amendment or removal by the DfT of contractual obligations, via the Ticketing and Settlement Agreement, relating to ticket office opening hours.

6.9.3 Stations

TOCs are free to make commercial judgements on the need for station and dispatch staff within the bounds of their safety responsibilities. The Study recommends that TOCs should review station staffing as a matter of priority.

6.9.4 Salaries and terms of employment

The expectation that salaries, at all levels of the railway industry, will increase ahead of inflation has to end. Indeed, with many passengers and taxpayers having their salaries frozen at present, even the granting of inflation-level increases must be questioned. This principle applies as much to the leaders of the industry as it does to the workforce.

The overall trend to reduce continually the length of the working day and the working week is unsustainable, and the industry needs to negotiate changes to terms of employment that currently limit flexibility and productivity.

A starting point would be to review the salaries and employment terms for new entrants to the industry.

6.9.5 Information technology in planning and allocating work

The Study recommends the rapid implementation of planning and work allocation technology across the industry to enable the more efficient deployment of people.

6.9.6 Network Rail operations and maintenance

Network Rail is implementing a new operating strategy that deploys modern signalling and control technology. It could accelerate investment and incorporate a greater part of the existing signalling into new operating centres than currently planned, but will need to balance the availability of capital with the staff and cost savings. The company intends to extend its programme of modernisation of maintenance by deploying high-output machinery, automating track inspection and using components that require less maintenance. Each of these initiatives should reduce staff costs.

6.9.7 Overheads

The Study recommends the implementation of several initiatives that would reduce industry overhead costs. Existing plans should be implemented at greater speed than currently planned.

6.9.8 Administration

The ORR should lead by example by improving its efficiency to a level that reflects the expectations placed on the rest of the industry and by enhancing its skills by active recruitment from the rail industry.

A number of changes in the role of the DfT will reduce the interface costs incurred by the industry.

6.9.9 British Transport Police

The DfT and the British Transport Police Authority (BTPA) should review the strategic options identified by the Study's research as potentially providing opportunities for further cost reductions beyond currently planned efficiency savings, and in line with those likely to be required from the rest of the industry.

6.9.10 Pensions

Other industries have sought to contain pension costs and have made significant changes to pension schemes. The cost of rail industry pension contributions by employers and employees will need to be addressed over the longer term.

Changes to the Railway Pension Scheme (RPS) are a matter of discussion between employers and members' representatives, and will be subject to the agreement of the trustees of the RPS. The structure of the RPS needs to be discussed sooner rather than later so that the financial exposure of employees and employers can be mitigated to a greater extent.

6.9.11 Training and people development

A fundamental review of training techniques and the time needed to train specific work groups could have some financial beenfit, but the true benefit of effective training is a better-equipped, more flexible and productive workforce. Current trends in training point towards college-based training for key industry skills, resulting in the award of a competence licence. This would increase the mobility of staff and encourage competition in training provision.

6.9.12 Flexible employment and equal opportunities

The industry employs a workforce which is predominantly full time, even though the peaks and troughs of much railway activity would be attractive to part-time employees. The Study recommends

that the industry's employers should continue to encourage a more flexible and diverse workforce and, in particular, provide opportunities for more women to be part of the industry.

The Study does not, however, support the widespread employment of unskilled casual labour. The Study believes that this undermines the need to increase the competence of the industry's workforce.

6.10 Freight

The rail freight industry delivers economic and environmental benefits to the UK economy. The freight industry has invested heavily and achieved significant cost reductions in a competitive market. The industry operates across the entirety of the GB rail network, and will require the retention of a national and system-wide approach to activities such as capacity planning, network capability and timetabling if it is to capture further traffic from road.

The Study has taken full account of the Secretary of State's commitment in his written submission that accompanied the publication of its Interim Submission on 7 December 2010, in which he said:

> *"I am also clear that the changes the Study is proposing must protect the interests of freight operators on the network."*

The rail freight industry can contribute to value for money by maintaining its flexibility of operation, using network capacity more effectively, identifying routes that do not require to be maintained for freight services, and demonstrating to the rest of the industry the techniques it has employed to improve productivity.

6.11 Rolling stock

Rolling stock is a major element of industry costs and the Study considers that there are opportunities to reduce costs in this area. The Study recommends:

- increased standardisation of rolling stock within the GB rail system;
- more effective procurement of rolling stock, on principles similar to those described earlier under supplier management (Section 6.7); and
- improving value for money from the leasing market.

With regard to this last item, the Study is aware of the remedies put forward by the Competition Commission following its review of the rolling stock leasing market. However, although it is too early to make a full assessment of the effect of those remedies, the Study finds it difficult to understand how these remedies will give the DfT sufficient information to satisfy itself that rates on re-leases are value for money.

Accordingly, the Study recommends that the DfT should explore the possibility of establishing strategic partnerships with the ROSCOs to ensure that re-lease rates are demonstrably value for money. If that cannot be achieved, the DfT should consider introducing regulation of fair rates of return to the ROSCOs or, in the longer term, establishing new vehicles to procure and hold rolling stock in the public interest.

6.12 Information systems

The RDG should ensure that there is improved oversight and management of cross-industry IT systems, which are essential to the day-to-day operation of the network, of strategic importance to the efficient delivery of improved value for money, and the means whereby improved information can be provided to passengers. The RDG should encourage the identification of opportunities where systems can be shared, including telecoms, and should ensure that national programmes are managed with maximum effectiveness, and take advantage of the most appropriate currently-available technology. Cross-industry information systems should be one of the primary responsibilities of the RSA.

6.13 Asset ownership

The Study considers that its recommendations elsewhere in this report, particularly those in relation to vertical integration and infrastructure management concessions, would be supported by separating ownership of infrastructure (by the central NR structure) from (route-level) infrastructure management. Considerable care needs to be taken in defining the extent of the asset owner's interest in the asset, and the owner's arm's length relationship with Government – the sustainability of the asset condition would remain subject to independent regulation through the ORR. NR would need to provide assurance during the transition.

6.14 Financial Transparency

The Study considers that, particularly in view of the substantial amounts of public subsidy going into the rail industry, there is a need for much greater public visibility of the industry's finances. The Study considers that the ORR should lead in this area, and that there should be four key strands to this increased transparency:

- splitting NR into route-level units, with separate price controls and annual comparative benchmarking of infrastructure costs per route;
- the removal of the Network Grant, so that all subsidies are paid through TOCs (with suitable protection for freight operators);
- annual comparative benchmarking of TOC and ROSCO costs, nationally and internationally; and
- whole-industry profit and loss accounts by franchise and by route, published annually.

This information should be reported at a sufficient level of disaggregation to encourage better-informed analysis, but should not be such as to be unduly onerous to the industry.

This new level of transparency will be enhanced by the exchange of information that will be necessary to enable new commercial arrangements at the NR–TOC interfaces, and will be complemented by the proposed analysis of what subsidy is buying.

6.15 Private Investment

Once the principal structural and other industry reforms are more fully developed, there will be opportunities for NR to raise debt without the current Government guarantee and for other sources of private investment to be accessed.

The Study considers that these options (unsupported debt or equity risk capital) could be appropriate once the structural changes envisaged are in place, together with an established financial track record and risk profile for NR, and the necessary asset information base.

Unsupported debt could be an option once there is sufficient clarity on the structural and other changes planned. Equity risk capital is more likely to be a medium- or longer-term option.

In the meantime, an element of private investment could be introduced into devolved infrastructure management concessions, if circumstances allow.

6.16 Lower-cost regional railways

The Study, in its Interim Submission, highlighted the difference in the net cost to Government and passengers of the three categories of franchise: long-distance, London and South East, and regional (Table 6.1).

Table 6.1: Difference in the net cost to Government and passengers of the three categories of franchise

	Passenger miles (bn)	Net cost to Government (£m)	Net cost pence per passenger mile	Net Cost to Government as % of total cost
Long-distance franchises	9.4	693	7.3	25
London and South East franchises	15.7	760	4.8	19
Regional franchises	6.0	1,873	31.1	61

Regional railways provide a number of key services and the Study recognises that there is a need to identify where the existing delivery philosophy does not deliver maximum value. Opportunities to improve value are likely to be centred on:

- different service levels;
- different equipment;
- lower-cost infrastructure;
- different working methods; and
- different standards.

Experience elsewhere in Europe suggests that it is possible to define a more appropriate level of specification for both infrastructure and operations that can maintain existing standards of safety, but which can reduce the costs of supporting networks which are used less intensively. Local authorities and PTEs could potentially play an important role in examining the options in Great Britain.

It is recommended that several routes with different characteristics are identified where the principles of lower-cost regional networks could be developed, piloted in operation and benchmarked.

6.17 Ensuring that value for money is achieved

The Study recommends that the DfT should:

- ensure that there is sufficient clarity in terms of Government's policies for rail, and between rail and other transport modes, to permit a clearer line-of-sight from objectives set for the rail industry through to strategies for implementation – in particular, there should be an explicit cost-reduction objective;
- develop, in the medium term, adequate transparency on subsidy – the DfT and the industry should work together to progressively unpick, understand and share with other decision-makers, farepayers and taxpayers a full analysis of what subsidy is buying. This is a major undertaking that could partly be aligned with the RUS and HLOS processes. However, the aim should be to have a reasonably complete picture within two to three years from now. The DfT should, in parallel, assess how this use of subsidy contributes towards Government's policy objectives;
- develop, with input from industry, an overarching plan for value for money improvement and long-term reduction in subsidy, based on the above analysis and with the following characteristics:
  - future needs of the railway, and key cost drivers, to be taken into account;
  - future major spend decisions (including decisions to continue existing services or fares) to be tested using consistent value for money assessment and based on trade-offs between alternative uses of the funds;
  - HLOS process and franchise re-lets used to implement resultant service changes; and
  - adjustments made to the subsidy reduction plan as required, but avoiding frequent major reviews of strategy;
- establish and implement a subsidy control process in which individual programmes and, potentially, PTEs and/or local authorities manage their subsidy allocations, but the overall subsidy is managed centrally against the national plan.

Within the above processes, there may be increased scope for more local engagement in analysis and decision-making with a view to improving value for money outcomes.

6.18 Increasing local involvement

The Study has identified in various parts of its analysis the opportunity for greater local involvement, through PTEs and/or groups of local authorities, and the potential advantages of greater devolution of budget and decision-making. There are examples in Europe of the successful use of tendering of services on a localised basis.

There are, however, issues to be addressed before a more devolved approach could be put in place. In particular, there is a need to establish a framework that can bring local decision-making more closely together with budget responsibility and accountability. This framework would need to address:

- the extent to which there can be a meaningful common agenda between national Government (which currently has a clear focus on reducing the cost of the GB railway) and the PTEs and

local authorities (whose priorities may be increased services and/or lower fares in their areas); and

- what would be required to create groupings of PTEs and/or local authorities with the capabilities and governance structures to take on more responsibility and interface effectively with franchise or route geographies.

The Study is aware of the DfT's discussions with PTEs on alternative models of franchising that could fit with a more devolved approach, and supports continuation of this work on franchising models and the development of an overall conceptual framework, with a view to possible first application on the re-franchising of Northern.

It should also be noted that, even without substantive devolution, there could be merit in introducing, as a precursor to franchise procurement, stronger incentives for PTEs to propose efficiency measures and to receive a share of the benefits. In addition, there may be scope to allow local bodies other than PTEs to offer similar increment and decrement incentives to encourage greater local involvement.

7. Regulation

7.1 Move towards a single regulator for the industry

In view of its central theme of closer working between different parts of the industry, particularly between Network Rail (NR) and the Train Operating Companies (TOCs), the Study considers that there should be a move towards a single regulator for the rail industry as a whole.

Such a move would provide greater clarity between the roles of Government and the regulator, on the basis that the setting of policy direction and the making of politically-sensitive trade-offs between high-level objectives is clearly the role of Government, whereas the day-to-day regulatory decisions are made by the independent regulator, the ORR.

This would also support the Study's general themes of the industry taking more responsibility and central Government being involved in less detail. Accordingly, the Study envisages that the ORR might take on the **regulatory** role in relation to franchises and possibly, at some point in the future, in relation to fares, as well as regulating cross-industry outcomes, general passenger-facing obligations, and reviews of outputs and franchise contract changes for train operators. (The DfT would continue to handle procurement of franchises under this scenario).

The ORR would need to play a strong role in ensuring that the interests of freight and other operators are protected, in the light of closer alignment between NR and TOCs. The ORR should be a primary source of benchmarking and reports on industry performance, and would also need to ensure that structural and other changes made in response to the Study's recommendations comply with the industry's safety obligations.

7.2 Equipping the ORR for an expanded role

The ORR already has an important role. It should be an authoritative, independent voice on safety, as well as being an expert economic regulator. If the ORR is to take on board a significantly expanded role, it must be able to demonstrate to Government and the industry that it is capable of delivering its current functions at an enhanced level, and of fulfilling an expanded role. It would be essential that the ORR has the resources, skills and standing necessary to fulfil such a wider role.

The Study supports the recent recommendations by the National Audit Office that, in the event of any substantial change to the ORR's role, it should undertake a capability review. In particular, such a review should consider whether the ORR will have available sufficient expertise in railway engineering and operations both at Board and executive levels.

8. Legal background

The Study team has, in consultation with the Department for Transport (DfT) and the Office of Rail Regulation's (ORR) legal experts, reviewed the proposals emerging from the Study.

Inevitably there can be no firm conclusion on possible legal issues at this stage, and much would depend on the detail of proposals as these are further developed for implementation. Also, much would depend on Network Rail's (NR) willingness to move along the lines recommended by the Study, particularly in relation to the proposals under structures and interfaces (Section 6.3).

Subject to further definition and analysis, and subject to NR's willingness, there do not appear to be any insuperable legal obstacles to the Study's proposals, provided due attention is given to conformance with:

- EU and public law restrictions;
- EU directives, particularly with regard to the separation of railway infrastructure and undertakings, and ensuring the preservation of fair competition between industry participants;
- EU procurement and State Aid constraints; and
- processes for licence amendments.

Particular care would also need to be taken to ensure that the functioning of the Rail Delivery Group (RDG) and its principal participants does not disadvantage other industry players or new entrants in any anti-competitive manner.

9. Implementation

Making significant changes within the timescales required will present major challenges to all concerned. The keys to success will be building a powerful guiding coalition in support of a comprehensive programme of change, a good plan, and the exercise of effective leadership.

9.1 Programme management

In order for a programme based on the Study's recommendations to be developed and implemented successfully, the Study believes that the following are required to be in place:

- The Rail Delivery Group, as described earlier.
- A small independent Change Team that is tasked with planning, co-ordination, monitoring and reviewing implementation across all elements of the industry of a complex series of actions – this team should include proven "change agents" to facilitate action across the broad scope of this report's recommendations.
- As soon as practicable, the Change Team should work closely with and, once change is under way, be incorporated within the Rail Delivery Group (RDG). This would provide a structure where change is facilitated by the Change Team, but is led by the industry as a whole.
- A regular reporting and monitoring mechanism should be established with a direct line to the Secretary of State.

The Study considers that this Change Team should be established by the Secretary of State, but should be independent from industry and Government at the beginning so that it is free to pursue the reform agenda freely and impartially.

9.2 Early moves to establish momentum

It is also recommended that, provided there is a positive response from the industry, the Rail Delivery Group is established within weeks of the Study report publication, perhaps initially on an informal basis. With the creation of the RDG structure, and in line with recommendations in earlier sections of this report, it is recommended that the Planning Oversight Group, the Rail Safety and Standards Board, the Technology Strategy Leadership Group and the National [Performance] Task Force are linked to the RDG. This can take place quickly with the agreement of key stakeholders, as can the establishment of a Rail Systems Agency and a National Safety Task Force.

It will be for the industry itself to decide over a longer-time period to what degree the RDG becomes responsible for the co-ordination of a wider range of "whole system" activities and services.

In the short term, it will be critical that momentum is generated in the change programme. The early establishment of the RDG, and identification of areas where some "quick wins" can be found, will facilitate this.

9.3 Linkage to Control Periods and franchise renewals

Franchise renewal points and Control Period commencement are major opportunities to drive change within Train Operating Companies and Network Rail. It is at these contractual and regulatory change points that structural change and other major reforms that affect NR/TOC integration and alignment can most easily be implemented. The Study endorses using these change points as target dates for major structural reform, as they are clearly key opportunities for Government and the Office of Rail Regulation to mandate change. However, the Department for Transport and the ORR should consider whether other changes can be made without waiting for these fixed key dates.

9.4 Phasing

The definitive programme for change, its timing and pace of change will be for the industry and Government to determine. The Study suggests five phases of change and some key milestones, as follows.

9.4.1 Phase 1 (May 2011 to August 2011)

- The ORR launches the periodic review of NR.
- Establishment of the independent Change Team.
- The informal establishment of the Rail Delivery Group (RDG) by industry.
- The incorporation of key findings from the report into West Coast and East Coast franchise specifications, including longer franchises and new incentives regimes.
- The commencement of NR route devolution.
- Commence development of programme management good practice model.

9.4.2 Phase 2 (September 2011 to December 2011), Government High-Level Policy Statement

- Industry plan available for the High Level Output Specification (HLOS) process.
- Formal establishment of the RDG, with links to cross-industry bodies.
- Decision on an early vertical-integration pilot, e.g. Anglia.
- Identification by NR and TOCs of opportunities for initial bespoke joint venture or alliance arrangements, where potential efficiency gains make this practicable and desirable.
- Complete review of existing cross-industry bodies.
- The creation of a Rail Systems Agency (RSA) and a National Safety Task Force (NSTF).
- The DfT to commence one-off analysis of where subsidy is used.
- The DfT and the ORR to agree a plan for the definition and transition to an expanded role for the ORR.

9.4.3 Phase 3 (January 2012 to December 2012)

- The publication of HLOS and SoFA for Control Period 5 (CP5).
- The commencement of the West Coast and East Coast franchises.
- The DfT to complete its review of fares policy and strategies.
- The launch of the Rail Innovation and Growth Team.
- The DfT to continue its analysis of what subsidy buys.

9.4.4 Phase 4 (January 2013 to March 2014) Control Period 4 residual

- The completion of the first set of annual route Profit and Loss Statements (P&Ls) within NR.
- ORR's CP5 determinations published.
- Two joint ventures or alliances and one vertical integration pilot in place by 2013/14.
- The commencement of the "lower-cost regional railway" pilot schemes.
- The completion of NR route devolution.
- The DfT completes analysis of subsidy and its link to rail policy objectives.

9.4.5 Phase 5 (April 2014 to March 2019), Control Period 5

- The incorporation of the Study's findings into specifications for remaining franchise renewals.
- The commencement of the ORR's periodic reviews of franchises.
- Finalisation of fares reform, including the ORR's role in fares regulation.
- Enhancements budget fully devolved to routes.

10. Conclusions

Closing the GB rail efficiency gap is a massive task that will require change in almost every facet of the railway and concerted efforts from everyone who works in the industry.

The Study considers that the improvement necessary can be delivered over a five to seven year timescale if there is commitment from all. The Study believes that there is an onus on all parties to give that commitment so that passengers and taxpayers can receive a fair deal – which they are manifestly not receiving at present.

Closing the efficiency gap will also open up huge opportunities for the industry. Few other major industries today can see so clearly the prospect of doubling their level of activity over the next 20 years, a prospect that offers opportunities for all the companies involved, their employees and suppliers.

The immediate issues are whether or not the effort required will be made, whether or not this relatively old industry can embrace change and a new culture, and whether or not Government, the ORR and the travelling public can support the industry in making these changes.

The Study team has completed its task. It has quantified the cost problem, identified barriers to efficiency, and recommended a set of solutions that have the potential to deliver much improved value for money. The next steps are for all those involved in planning and operating the railway to take.

We wish them success.

Annex A: Terms of Reference

The Study's Terms of Reference were as follows:

1 To examine the overall cost structure of all elements of the railway sector and to identify options for improving value for money to passengers and the taxpayer while continuing to expand capacity as necessary and drive up passenger satisfaction.

2 In particular, to examine:

- what legal, operational and cultural barriers stand in the way of efficiency improvements;
- the incentives across different parts of the rail industry to generate greater efficiency;
- the role of new technology, processes and working practices in fostering greater efficiency;
- ways of generating more revenue, e.g. car parking, gating at stations, better utilisation of property; and
- to make recommendations.

3 The Study will examine the whole-industry costs and revenues and their composition. In doing so, it will look at comparable industries in the UK and abroad.

4 The Office of Rail Regulation (ORR) will be a joint sponsor of the Study. The ORR will remain responsible for delivering efficiency improvements by Network Rail (NR) and for safety regulation. The Study should take account of ORR's benchmarking work for the period 2009–14 and beyond.

5 The work will divide into a scoping study and a detailed report, the former to be completed by the end of March 2010.

Annex B: Glossary

Alliance	A legally binding commercial agreement between two or more companies created for a specific purpose, and defining how risks, profits and losses are shared
ATOC	Association of Train Operating Companies
BR	British Rail – operator of most of the rail transport in Great Britain from 1948 until privatisation in 1997
BTPA	British Transport Police Authority
CP4	Control Period 4 (2009–14)
CP5	Control Period 5 (2014–19)
Devolution	Where responsibility for certain functions is transferred from the centre to more local levels e.g. Network Rail routes.
DfT	Department for Transport
DOO	Driver Only Operation
FOC	Freight Operating Company
GB rail	All aspects of the rail industry covering England, Scotland and Wales
GRIP	Governance for Railway Investment Projects, previously known as "Guide to Rail Investment Projects" – describing how Network Rail (NR) manages and controls projects that enhance or renew the national rail network
HLOS	High Level Output Specification
HLOS2	High Level Output Specification 2 (2014–19)
Horizontal Separation	Where Network Rail route-level activities are divided into relatively freestanding infrastucture management units.
HS	Horizontal Separation
IM	Infrastructure Manager
Independent Ownership	Where one or more infrastructure management concessions come under ownership separate from Network Rail.
Interim Submission/ Interim Report	The interim report, published in December 2010, indicating the emerging findings of this Study
IS	Information systems
Joint Venture	A legal entity owned by two or more companies created for a specific purpose, and to share the resultant profits and losses
JPIP	Joint Performance Improvement Plan – a regulated agreement between NR and a TOC to improve performance
LSE	London and South East
NAO	National Audit Office
NR	Network Rail

NTF	National Task Force – a cross-industry body with senior representatives from passenger and freight train operators, NR, ATOC, the DfT and the ORR. Its primary focus is train service delivery
ORR	Office of Rail Regulation
PTE	Passenger Transport Executive
RAB	Regulatory Asset Base
RDG	Rail Delivery Group
RIGT	Rail Innovation and Growth Team
ROSCO	Rolling Stock Company – own, lease and, in some cases, maintain rail vehicles
RPI	Retail Prices Index
RPS	Railway Pension Scheme
RSA	Rail Systems Agency
RSSB	Railway Safety and Standards Board
RUS	Route Utilisation Strategy
Scoping Report	The Scoping Report of the Study, published in June 2010
SoFA	Statement of Funds Available
SRA	Strategic Rail Authority – in existence from 2001 to 2006
TfL	Transport for London
TOC	Train Operating Company
TPWS	Train Protection and Warning System
TSAG	Technology Strategy Advisory Group (now TSLG)
TSI	European Technical Standards for Interoperability
TSLG	Technology Strategy Leadership Group
TVM	Ticket vending machine
Vertical Integration	Where two or more separate firms combine in one integrated unit their previously separate activities – in this case combining route infrastructure management and train operations within a single long-term concession held by one company.
VfM	Value for money
VI	Vertical Integration
WCML	West Coast Main Line

ISBN 978-1-84864-123-5