



**PERIODIC REVIEW OF RAILTRACK'S
ACCESS CHARGES - A PROPOSED
FRAMEWORK AND KEY ISSUES:
A CONSULTATION DOCUMENT**

Contents

Regulator's foreword	1
1. Summary and issues for consultation	5
Summary	6
2. Framework for the review.....	15
Timing of the review.....	15
Objectives and scope of the review.....	15
Context of the periodic review.....	17
Issues for consultation.....	17
3. The business and regulation of Railtrack	19
The business of Railtrack.....	19
The regulation of Railtrack	20
The 1994 review of Railtrack's charges	21
4. The nature of the control on Railtrack's charges	23
The current controls on Railtrack's charges	23
The use of a single till to set the control	25
The form of the control.....	26
Duration of control.....	29
Issues for consultation.....	29
Timing	30
5. Incentives to use and develop the network	31
The current structure of charges.....	31
Reasons for revising the structure of charges	32
Developing a work programme.....	33
Implementation	34
Issues for consultation.....	35
Timing	35
6. Capability, quality and performance of the network	37
Performance regimes.....	40
Issues for consultation.....	41
7. Efficiency review of Railtrack's capital and operating expenditure	43

Operating costs.....	43
Capital expenditure	44
Timing	45
8. Setting the control on access charges	47
Cost of capital	47
Valuation of assets	47
Enhancement	48
Issues for consultation.....	48
9. Timetable and process.....	51
Transparency.....	51
Consultation.....	51
Processes	52
Indicative timetable.....	53
Issues for consultation.....	54
Technical appendix - Financial issues	55
Cost of capital	56
Initial valuation of the asset base	57
Rolling the RAB forwards to 2001	59
The RAB from 2001 onwards	59
Financial indicators and modelling.....	60
Out-performance	61
Issues for consultation.....	61

Regulator's foreword

1. This consultation paper launches my review of Railtrack's access charges and overall regulatory framework. The review will be a major exercise between now and 2000. But I believe it is right that the process should start now. This is the first opportunity for a full assessment of the way these charging arrangements are working in practice, and I want to allow time for full consideration of the issues which will need to be decided, and effective consultation on them.
2. Railtrack has a central and unique position in the railway industry. It has a secure income, set at a level which provides for the maintenance and renewal of the network and the eradication of a backlog of spending on stations. Train operators and their customers are dependent on Railtrack and it therefore has obligations to them. Moreover, Railtrack is dependent for its revenue, and profits, on the continuation of payments of substantial public subsidy to its customers, the train operating companies. As steward of the national network, Railtrack also has obligations to its funders who provide grants or loans with the primary purpose of securing the provision of railway services. It clearly has a critical role in achieving the Government's objective of seeing more passengers and freight travel by rail, as a contribution to reducing congestion and pollution on our roads.
3. Railtrack's security of income is based on access charges which are contained in the bilateral access agreements between it and individual train operators. These charges fall by 2% a year in real terms on the basis of a formula which applies until 2001. I have no unilateral power to modify them before then, and must publish conclusions on the level and structure of charges by 31 July 2000 to apply from April 2001. This 'periodic review' of Railtrack's financial framework will provide an opportunity to assess its performance during the initial price control period and to set performance targets and appropriate levels of charges for the next period.
4. The initial charging framework was established while the restructuring of the railway was still under way, and before the track access agreements which determine the commercial and operating relationship between Railtrack and train operators were finalised. Now that the restructuring and privatisation process has been completed, it is timely to review whether the framework is delivering the improvements in services and expected cost savings which bring benefit to users and promote the role of railways within the Government's integrated transport strategy.

5. The periodic review therefore needs to be a full and comprehensive reappraisal not only of Railtrack's access charges but also of the overall framework for regulating Railtrack to identify changes which will promote the objectives of investment, growth and improvements in operating performance that rail users and funders are entitled to expect from Railtrack. This may lead to changes in the current level and structure of Railtrack's charges. I shall attach considerable importance to what Railtrack has actually delivered to customers, train operating companies and funding bodies. Its record to date, and the improvements in both committed plans and delivered improvements between now and 2000, will be critical factors in shaping my review of Railtrack's regulatory framework.
6. Establishing the overall level of Railtrack's access charges involves many of the same considerations that have featured in the price control reviews of other privatised network industries. I will, for example, need to review Railtrack's forward plans, and take a view on the operating and capital cost efficiencies the company can achieve. In considering the appropriate return on capital, I will need for the first time to consider market evidence on Railtrack's asset value and cost of capital, and whether these point to the need for a further rebasing of charges.
7. I will also want to review the current arrangements in respect of Railtrack's property estate. In particular, I will want to be satisfied that my objective in establishing the existing scheme for sharing additional property profits - to provide the most powerful incentive to Railtrack to develop its property assets and to build a stronger business without compromising its duties to concentrate on and develop a better railway infrastructure - is being achieved.
8. Achieving a robust financial framework beyond 2001 requires clarity on the improvements in network capability and performance that users and funders expect, and are prepared to finance. The annual cycle of Network Management Statements provides a basis for Railtrack to set out costed options on these matters. Government, and local authority funders of rail services, have a critical role to play in supporting the rail network and in deciding on the volume and pattern of both services and infrastructure they wish to underwrite. I believe that it is right that I should attach considerable significance to reaching a clear understanding of the aims of Government, and other funders, and the purposes for which subsidy is paid. I shall, therefore, work with OPRAF, Government and local authority funders in carrying out this review.

9. In the meantime, I will expect Railtrack to deliver its commitments to maintain, renew and enhance the railway network under the terms of the existing charging arrangements and I will continue to monitor Railtrack's performance closely. I will take enforcement action if necessary to secure delivery of the commitments made in its annual Network Management Statement, and will also consider whether adjustments should be made to future access charges to ensure that the balance between rail users and funders and Railtrack shareholders remains appropriate. I will also want to determine whether financial out-performance results from additional efficiency savings, over and above those allowed for in setting access charges, or arises from other sources.
10. Consistent with a framework of incentive regulation, I made it clear in my statement in Railtrack's flotation prospectus that I would not seek to claw back retrospectively additional efficiency savings. Where, however, improvements in Railtrack's financial performance arise for reasons other than greater efficiency, I said that I would not consider it appropriate for the entirety of such benefits to be passed on to shareholders to the exclusion of Railtrack's direct and indirect customers. I have already started a review of the financial impacts of the performance regime, to understand the basis on which provisions have been established and amounts taken to profit by Railtrack, and will need to take a firm view on these matters as part of the periodic review. If increased profits (or balance sheet provisions) are not justified by additional efficiency or operational requirements, I will take them into account in assessing the scope for future reductions in access charge levels.
11. My overall objective for the review is to establish a financial framework which provides challenging targets for future efficiency and for improvements in network performance and capability, and strikes an appropriate financial balance between Railtrack, its customers and its funders. The review will identify the minimum sums necessary to finance the functions of an efficient operator, following the standard utility model. Delivering this objective will require a considerable amount of work, and will involve consideration of possibly radical and innovative changes to the current charging framework. The purpose of this consultation document is to set out a possible framework for this process, and to identify the main issues which the review will need to address. I will want to take into account the views of all relevant parties in reaching decisions, and to be able to explain those decisions. To achieve this, I will want the process to be open and transparent, with much of the analysis published for public scrutiny.

12. This consultation document is the first stage in this process, and I look forward to your responses to it.

John Swift QC
Rail Regulator
December 1997

1. Summary and issues for consultation

- 1.1 Following his initial review of charges in 1994, the Regulator approved access charges to Railtrack's network for franchised passenger train operators in 1995, for the period until 31 March, 2001. This consultation document is the first stage in his review of these access charges and his determination of the charges which should be incorporated into the access agreements between Railtrack and franchised passenger train operators from 2001 onwards.
- 1.2 Railtrack is a monopoly supplier of the national railway network in Great Britain. It is subject to a high degree of regulation to ensure that it does not exploit this position and that it discharges properly its obligations as steward of the national rail network. In particular the Regulator approves the access charges which Railtrack levies on its customers. In the case of franchised passenger train operators, which provide in the order of 90% of Railtrack's revenue, the Regulator determines the appropriate charges by carrying out a periodic review.
- 1.3 Since the Regulator set the charges for franchised passenger operators in 1995, there have been a number of developments in the railway industry. In particular Railtrack now operates in the private sector. This will therefore need to be a full and comprehensive review which addresses the level of charges as well as other aspects which make up the framework in which Railtrack is regulated, in order to identify any changes which can be made to promote the objectives of investment, growth and improvements in operating performance. The review will also address the structure of Railtrack's charges and the incentives which this provides Railtrack, its customers and funders to make the best use of the existing network and where appropriate to develop the network.
- 1.4 There are a number of features about Railtrack which make it unique. However, many aspects of the standard framework for setting price controls for network utilities are still relevant. The Regulator will therefore be setting prices from 2001 on the basis of the costs which Railtrack could reasonably be expected to incur including a return to shareholders and taking account of efficiency savings. He will also wish to consider this against the background of Railtrack's performance to date which, together with the improvements in both committed plans and delivered improvements between now and 2000, will be critical factors in shaping the review of Railtrack's regulatory framework.

- 1.5 In this consultation document the Regulator welcomes views on the proposed framework and on the individual strands of work which will make up the review. These different areas are summarised in the section below and are followed by particular issues on which the Regulator seeks the views of consultees.

Summary

Framework for the review

- 1.6 The Government is committed as part of its integrated transport policy to winning more passengers and freight to rail. A Concordat was recently agreed between the Regulator and the Secretary of State for the Environment, Transport and the Regions which acknowledges and respects both parties aims and objectives for the railway and establishes a basis for co-operation and communication. In advance of the Government's Transport White Paper which is due to be published in 1998, the Regulator proposes using this as a basis of working with Government and the Franchising Director.
- 1.7 In many respects Railtrack has much in common with other regulated network utilities. The review will therefore identify the minimum sums necessary to finance the functions of an efficient operator, following the standard utility model. In one important respect, as an indirect recipient of large amounts of public subsidy, it is however significantly different. Decisions about the level of subsidy are for Government. The Regulator will look to decisions emerging from the Government's review of integrated transport in order to understand its expectations for Railtrack and use this to inform his review of Railtrack's access charges.
- 1.8 It is the role of the Regulator to identify the lowest cost at which Railtrack is able to provide a given level of output and quality of service. He will also expect to see the benefits of improved efficiency passed through to Railtrack's customers either through a reduction in its access charges or through enhancements in the quality of Railtrack's output.
- 1.9 To the extent that the regulation of Railtrack shares features with the regulation of other privatised network utilities, the Regulator will also need to take account of any developments of general applicability (in particular those of a technical nature) which emerge from the Government's review of utility regulation, on which a Green Paper is to be published shortly.

- 1.10 The framework for the review and the approach the Regulator proposes taking is discussed in more detail in Chapter 2.

The nature of the control on Railtrack's charges

- 1.11 Under the current regime the Regulator specified the fixed and variable charges in the track access agreements and the station Long Term Charge in the station access agreements. The agreements also contained a price variation mechanism which increased charges by a factor of RPI-2 for the period from 1996-97 to 2000-01. In resetting these charges the Regulator will be considering whether the basis on which he set those charges the first time, when Railtrack was still a government owned company, remains appropriate. He will need to decide on the use and scope of the single till and the treatment of under-delivery or out-performance in the current control period as well as the form and duration of the control.
- 1.12 Any conclusions which the Regulator reaches in these areas will in part depend on the incentives which he considers different approaches generate. For example, in deciding how to deal with the additional efficiency which Railtrack has been able to generate in excess of the 2% anticipated during the current control, the Regulator could set charges from 2001 at the efficient level, which Railtrack is then achieving, by proposing a one off cut in the level of access charges (known as a P0 adjustment). However this approach could reduce the incentives on Railtrack to generate efficiency savings towards the end of the current control. Alternatively he could adopt a "glidepath" approach which introduces the new efficient level over a period of time and may give stronger incentives to Railtrack to achieve further efficiency savings. The Regulator would not consider it appropriate to claw back additional efficiency savings made in the current control period because this would remove any incentive on Railtrack to generate efficiency savings in the first place in excess of the target which had initially been set. Similar issues arise in considering the duration and form of the control. These are discussed in detail in Chapter 4.

Incentives to use and develop the network

- 1.13 The Regulator has a duty to carry out his functions in a way which he considers will best promote development of the railway network to the greatest extent that he considers economically practicable. He has become increasingly concerned that although the current structure of charges paid by franchised passenger operators, which has a large fixed element (approximately 90%) and a low variable charge, is effective in promoting the use of the existing network, it does not create the right

incentives to develop the network. This has become increasingly important as parts of the network reach capacity in terms of the trains which can be accommodated.

- 1.14 This was an issue which the Regulator recognised at the time of the last review, but he concluded there was insufficient time and information available to introduce immediate change in a meaningful way. Instead he put in place a mechanism which enabled variability to develop over time as a result of negotiation between train operators and Railtrack. It is the Regulator's initial view in the light of three years industry experience that the process of negotiation is not working as effectively as it might in part because of differences in the information available to Railtrack and franchised train operators but also because of the high transaction costs of individual negotiations.
- 1.15 A key element of this review of track and station access charges for franchised passenger operators will therefore be to determine whether there are changes which can be made to the structure of charges which will address his concerns. The Regulator will be discussing with Railtrack the work that needs to be carried out to gain a better understanding of cost causation in the provision of railway infrastructure as a precursor to considering revisions to the structure of charges. This work is likely to require detailed analysis of options and by necessity will have a long lead time. The Regulator will also want to consider whether, for example, more widespread adoption of revenue-sharing arrangements for additional services would help to promote new and improved services. If the Regulator concludes that changes to the structure are appropriate and practicable he will want to give particular thought to the implementation of any changes to ensure that a smooth transition takes place.
- 1.16 The reasons for changing the structure of charges, the desirable features of a revised structure of charges and issues of implementation are discussed in greater detail in Chapter 5.

Capability, quality and performance of the network

- 1.17 To determine the amount of revenue which Railtrack needs to fund its operational, maintenance and capital expenditure requirements, the Regulator needs to establish what Railtrack should be delivering for a given amount of financial resource in terms of the capability, quality and performance of the railway network over the next control period. He will also need to establish how well Railtrack has performed against his expectations at the time of the previous review of charges.

- 1.18 The Regulator has set out in January 1997 objectives for Railtrack as steward of the network which were based on the principles of the previous review of the level of charges. Earlier this year he also agreed with Railtrack a modification to its network licence which placed a specific obligation on it in respect of the adequacy and delivery of its plans for the stewardship of the network as contained in the Network Management Statement (NMS). The Regulator expects that the NMS due in March 1998 will contain measures of the capability and quality of the network and targets for the future which are consistent with his objectives. He proposes to use the NMS as a key document on which to base his dialogue with Railtrack on its performance up to the end of the current control period and as a basis for determining appropriate targets for the next control period.
- 1.19 The Regulator has already started reviewing the effect of the performance regimes, which he approved on the basis that the operation of the regimes would in total have a financially neutral effect. He will need to determine at the end of the current control whether any divergence from the financial "break even" position which he anticipated has been due to greater efficiency on the part of Railtrack or other factors. It is currently his intention that any excess benefit which has arisen for reasons other than greater efficiency, whether it appears in the retention of provisions or through profit, should be taken into account in assessing the scope for future reductions in access charge levels.
- 1.20 Issues relating to the capability, quality and performance of the railway network are discussed in detail in Chapter 6.

Efficiency review of Railtrack's capital and operating expenditure

- 1.21 Railtrack's position as a monopoly supplier means that it is not subject to the competitive pressures which require it to make efficiency savings which can be passed on to its customers. It is therefore one of the tasks of the Regulator in setting access charges to determine what efficiency savings Railtrack could reasonably be expected to make. He proposes to adopt a number of different approaches, including for example benchmarking against other companies and railways and seeking advice from expert consultants, in reaching a decision on this. These issues are considered in greater detail in Chapter 7.

Setting the price control

- 1.22 In addition to determining the capital and operating expenditure which Railtrack requires to produce a given quality and level of output, the Regulator will also set

access charges on a basis which allows an appropriate return on capital to the company. The Regulator is aware that this is an area which has been considered by other regulators and the Monopolies and Mergers Commission and he will have regard to the conclusions they have reached. In line with their work, and consistent with what the Regulator said at the time he produced conclusions on the last levels review in January 1995, he is currently minded to reject the idea that Railtrack should earn a return on the net book value of its assets and instead will have regard to the value placed on the company at or shortly after the time of flotation.

- 1.23 The Regulator will also need to establish what is an appropriate rate of return on Railtrack's assets. As Railtrack is a network monopolist indirectly in receipt of significant subsidy, it may be appropriate to consider whether the company should earn a different return on its existing assets, which it could be argued are underwritten by Government, from investment which it undertakes on a commercial basis.
- 1.24 Different approaches which the Regulator could take to these issues are discussed generally in Chapter 8 of the document and in more detail in the Technical Appendix.

Timetable and process

- 1.25 It is the Regulator's intention that the review will be an open and transparent process. He recognises that different parts of the review are likely to be of particular interest to different parties. To reflect this he will want to consider what is the most appropriate means of consultation at different stages in the review. The Regulator has set out an outline timetable for consultation. The timetable is based round the need to reach conclusions by July 2000. It highlights the main stages for each of the strands of work identified in this document. Details are set out in Chapter 9.

Issues for consultation

- 1.26 Listed below, as a checklist for consultees, are the particular areas in this consultation document where the Regulator has sought views.

Framework for the review

- 1.27 In Chapter 2 the Regulator has set out the overall approach which he proposes taking in setting Railtrack's charges for franchised passenger operators from 2001. He invites the comments of consultees in particular on the scope and objectives of the review.

The nature of the control

1.28 In Chapter 4 the Regulator seeks the views of consultees on the form of the new control and in particular:

- the use of the single till and its scope in setting Railtrack's charges for franchised passenger services;
- the most appropriate way of dealing with under-delivery by Railtrack in its capital investment programme;
- whether there should be an initial reduction in access charges (P0 adjustment) to pass on out-performance to Railtrack's customers immediately or whether it should be introduced over time;
- the merits of controls on Railtrack's revenue, prices or profits; and
- the duration of the control and the pros and cons of including an interim adjustment process.

Incentives to use and develop the network

1.29 In Chapter 5 the Regulator invites the views of consultees on the structure of Railtrack's charges and in particular:

- the advantages and disadvantages of the existing structure of charges and the incentives it creates and the signals it sends to use and develop the network;
- possible changes which could be made to the current structure of charges to improve incentives to Railtrack, train operators and funders to use and develop the network efficiently; and
- desirable features and pitfalls to avoid in an alternative structure of charges.

Capability, quality and performance of the network

1.30 In Chapter 6, the Regulator invites consultees' views in particular on:

- the different methodologies he can adopt as a basis for measuring the current capability, quality and performance of the network, and for setting the targets for the next control period (including the scope for benchmarking Railtrack against other railways and businesses);

- the approach he should take as to whether Railtrack's performance in the current control period is adequate, and in particular whether the performance regime benefits accruing to Railtrack represent super-efficient performance by Railtrack, or other factors;
- the approach proposed of using the NMS as the key vehicle for establishing expectations of the capability, quality and performance of the network; and
- the approach proposed in respect of the renegotiation of performance regimes for the remainder of the access agreement period.

Efficiency review of Railtrack's capital and operating expenditure

1.31 In Chapter 7 the Regulator invites the views of consultees on the approach the Regulator should take in determining the appropriate level of efficiency savings to be reflected in the price control over the next review period. In particular he seeks comments on:

- different methodologies which he could adopt to measure past out-performance by Railtrack and to forecast future efficiency gains for operating or capital expenditure.

Setting the control

1.32 In Chapter 8, and the Technical Appendix where the issues are set out in greater detail, the Regulator invites the initial responses of consultees on:

- the framework for determining the value of assets, the cost of capital for different types of assets and the methodology for calculating Railtrack's total revenue requirement; and
- the approach he proposes taking in ring fencing investment decisions taken by Railtrack for commercial network enhancement projects to ensure that they are not indirectly in receipt of subsidy from government.

Timetable and process

1.33 In Chapter 9 the Regulator invites comments from consultees on the processes and timetable which he is minded to adopt for the review and in particular seeks views on:

- who he should be consulting and by what method; and
- the outline timetable.

Responding to this consultation

1.34 Consultation responses should be sent to:

Joanna Whittington
Office of the Rail Regulator
1 Waterhouse Square
138 -142 Holborn
London
EC1N 2ST
Fax: 0171-282 2046
Email: erg.orr@gtnet.gov.uk

to arrive no later than 27 March 1998. Respondents should indicate clearly whether they wish their responses to remain confidential to ORR. Otherwise they may be published, placed in the ORR library or quoted from by the Regulator. Where a response is made in confidence, it should be accompanied by a statement which can be published, placed in the ORR library or quoted from by the Regulator summarising the submission excluding the confidential information.

2. *Framework for the review*

Timing of the review

- 2.1 The Regulator is required to produce final proposals on changes to the access charges levied by Railtrack PLC (Railtrack) for franchised passenger train services by 31 July, 2000 for implementation in the track access agreements and in respect of the station Long Term Charge, station access agreements, from 1 April 2001¹.
- 2.2 In deciding to start the review now, the Regulator has had regard to this being the first review of Railtrack's charges since it entered private ownership and therefore that, in the context of the restructured railway industry, many issues are being considered for the first time. The Regulator is also aware that some of the issues which will be considered as part of the review, in particular possible changes to the structure of charges, could have a long lead time in terms of development and implementation.
- 2.3 The Regulator intends to conduct an open and transparent review process. (This is discussed in more detail in Chapter 9 - Timetable and Process.)

Objectives and scope of the review

- 2.4 Consistent with his duties as set out in section 4 of the Railways Act 1993, the Regulator considers that the principle objective for the review should be to establish a financial framework for Railtrack with challenging targets for future efficiency and improvements in the quality, capability and performance of the network. At the same time the framework should also deliver an appropriate financial balance between Railtrack, its customers and its funders which includes tax payers. The Regulator is proposing taking as his starting point for the review the standard utility framework of regulation. He will therefore be setting the overall level of charges from 2001 on the basis of the costs which Railtrack could reasonably be expected to incur (including a return to shareholders) and taking account of efficiency savings. He will also wish to consider the future level of charges against the background of Railtrack's performance in the period up to 2001.

¹ The mechanism for achieving changes to the track access charges is set out in Part 8 of Schedule 7 of the franchised passenger train operators' track access agreements with Railtrack and for achieving changes to the station Long Term Charge in Condition F 11 (5) of the National Station Access Conditions and Condition 42.5 of the of the Independent Station Access Conditions for any Station which is an Independent Station. These mechanisms require Railtrack and train operators to propose modifications reflecting the Regulator's conclusions; if these are not approved by the Regulator, the agreement can be terminated.

- 2.5 It is the Regulator's intention that the review will have at its heart a focus on the views of Railtrack's direct and indirect customers. These include passenger and freight train operating companies, passengers and freight customers and funders (in the form of the Office of Passenger Rail Franchising (OPRAF), Passenger Transport Executives, local authorities and, behind them, the Department of the Environment, Transport and the Regions and the Treasury).
- 2.6 It will not be within the remit of the review to decide the level of subsidy which the railway industry receives and hence the overall level of investment which government in effect funds for the network. These are decisions for Government. During the course of the review, the Regulator will however look to decisions emerging from the Government's review of integrated transport in order to understand its expectations for Railtrack. A Concordat was recently agreed between the Secretary of State for the Environment, Transport and the Regions and the Regulator which acknowledges and respects both parties' aims and objectives and establishes a basis for co-operation and communication. In advance of the Government's Transport White Paper which is due to be published in 1998 the Regulator proposes using this as a basis for working with Government.
- 2.7 The Regulator will come to a view on the quality of the service which Railtrack provides for a given input of financial resource. He will be concerned to give proper incentives to Railtrack to deliver customer requirements as economically and efficiently as possible. He will expect to see the benefits of improved efficiency passed through to Railtrack's customers. In part this may be through enhancements in the quality of the service Railtrack provides or through a reduction in the level of Railtrack's access charges. Under the franchise agreements between the Franchising Director and train operators, amendments to the level of track and station access charges, as a result of the Regulator's review, are passed on to the Franchising Director so that the operator suffers no net financial loss or gain as a result of the change in level.
- 2.8 In reviewing access charge levels this time, there are likely to be differences from the approach which the Regulator took previously as a result of changes in circumstances, in particular, the fact that Railtrack is now a privately owned company. For example, the Regulator said in his previous conclusions on the level of charges that "At the next review of charges, [I] would expect to have regard to Railtrack's value at, and after, flotation and market evidence on its cost of capital."

Context of the periodic review

- 2.9 In accordance with the terms set down in the access agreements and access conditions, the conclusions of the review will be implemented from 1 April 2001. The majority of the franchise agreements are currently due to expire in 2003 and 2004. The conclusions of the periodic review will have to be sufficiently flexible to accommodate in a fair manner any changes in the way rail services are purchased by Government, in particular if this leads to changes not only in the overall level of train services purchased but also in the level of service provided by different operators. The mechanisms by which this flexibility can be achieved are discussed in greater detail later in this document. The options which the Regulator has identified include changes to the structure of charges, a mechanism for interim adjustments between reviews or a shorter control period.
- 2.10 The Government is currently in the process of carrying out a review of utility regulation. The terms of reference of the review do not include transport directly. It will however consider the experience of the transport sector in regulation where the principles are of general relevance. It is on this basis that the Rail Regulator made a submission to the review. The Regulator recognises that the approach to regulation of Railtrack shares features with the regulation of other privatised network utilities. He will also need to take account of any developments of general applicability (in particular those of a technical nature) which emerge from the review when the Green Paper is published.
- 2.11 In addition to the expiry of the franchises there are other possible changes to the regulatory framework which also suggest that the conclusions of the review could potentially need to be robust to a range of different options. In particular the Regulator is currently carrying out a review of the policy which restricts competition between passenger train operators. Modification of these restrictions could lead to changes during the next control period in the services offered by different operators. In setting the control the Regulator will want to make sure that uncertainty over the level of output provided by Railtrack does not lead to it either being under or over rewarded. Both these issues are considered in more detail in Chapter 5 - Incentives to Use and Develop the Network.

Issues for consultation

- 2.12 The Regulator has set out above the overall approach which he proposes taking in setting Railtrack's charges for franchised passenger operators from 2001. He invites the comments of consultees, in particular on the scope and objectives of the review.

3. The business and regulation of Railtrack

The business of Railtrack

- 3.1 Railtrack owns, operates and maintains almost all the railway infrastructure in Great Britain. This includes a network of approximately 16,000 route kilometres; 40,000 bridges, tunnels and viaducts; 9,000 level crossings; 2,500 stations; 90 light maintenance depots and connections to over 1,000 freight sites. Railtrack has a key role in managing safety on the network. In addition to being responsible for the safety of its infrastructure, it is also responsible for safety matters affecting the use of its network by train and station operators.
- 3.2 Railtrack was formed in April 1994 as a result of a government decision to separate the ownership of railway track and infrastructure from the operation of the trains, most stations and other railway services. It operated as a government owned company in the public sector until May 1996 when shares in the parent company, Railtrack Group PLC, were issued on the London Stock Exchange.
- 3.3 Railtrack's main activities include:
- selling train paths to passenger and freight train operators;
 - operating the rail network including the signalling and the supply of traction electricity to operators;
 - managing safety on the network;
 - operating fourteen major stations (mainly London termini);
 - leasing stations and light maintenance depots to train operators;
 - maintaining, renewing and enhancing the railway infrastructure; and
 - managing its property portfolio.
- 3.4 Railtrack receives most of its revenue from train operators purchasing train paths. In general it does not receive a direct subsidy from the government but is indirectly in receipt of significant amounts of public sector support which is channelled through the train operators. In 1997-98 train operators expected to receive nearly £1.7 billion in financial support from the public sector.

- 3.5 The summary table below shows Railtrack Group PLC's operating costs and revenues (in nominal prices) from its formation.

Table 3.1 Railtrack Group PLC's operating costs and revenues

£ million	1994-95	1995-96	1996-97
Turnover			
franchise passenger revenue	1955	2003	2119
freight revenue	191	158	159
property rental income	111	112	120
other income	18	27	39
Total	2275	2300	2437
Operating costs	1970	2004	2098

The regulation of Railtrack

- 3.6 As the monopoly supplier of track and signalling in Great Britain, Railtrack's activities are subject to a high degree of regulation as set out in the Railways Act 1993 and its licences. In particular the Regulator approves the terms, including charges, on which Railtrack provides access to track, stations and light maintenance depots. In January 1995, the Regulator published a policy statement which set out the basis of charging for franchised passenger services (i.e. services which are operated by one of the 25 franchised passenger train operators using Railtrack's network) until March 2001. In publishing this consultation document the Regulator is starting the process of determining what charges will apply to franchised passenger services from April 2001 onwards.
- 3.7 In addition to approving the individual access agreements and periodically reviewing the charges in franchised passenger access agreements, the Regulator also regulates the quality of the services which Railtrack supplies. He is able to do this through Railtrack's licence which was issued by the Secretary of State for Transport in April 1994 but is enforced and can be modified by the Regulator, with the agreement of Railtrack or following a reference to the Monopolies and Mergers Commission (MMC). In July 1997, the Regulator and Railtrack agreed to a modification of its licence to ensure that it achieves the objectives of:

- timely maintenance of the railway network;

- timely renewal and replacement of the network; and
- improvement, enhancement and development of the network.

3.8 As a result of this licence condition, Railtrack is required to show in advance how it will comply with these objectives, through the publication of its planning criteria and an annual NMS, and to report annually on what it has done. Failure to fulfil its stewardship objectives could lead to the Regulator taking enforcement action including fining Railtrack. The Regulator has also agreed with Railtrack that it should publish twice yearly key performance indicators which are designed to show whether Railtrack's network is being effectively maintained and renewed. The indicators currently include measures like track kilometres by gauge and line speed, track geometry, minutes and number of delays by cause and the number of temporary speed restrictions.

The 1994 review of Railtrack's charges

- 3.9 In 1994 the Regulator carried out reviews of the structure and level of Railtrack's charges for access to track, stations and depots. He published his conclusions in November 1994 and January 1995 respectively. In considering the structure of track charges, concerns were expressed that there was a need for greater transparency and that there should also be greater variability of charges in response to changes by operators in the access rights they require on Railtrack's network. The Regulator considered that these were legitimate concerns. However he recognised that the long lead time which was required to implement changes to the structure of charges required him to defer any decisions on charging structure to this periodic review.
- 3.10 The Regulator therefore introduced a process by which Railtrack and train operators could negotiate changes in the level of the fixed charge if access rights were surrendered or varied. In broad terms the structure of track access charges for franchised passenger services remained the same. Charges in franchised passenger access agreements would be specified as a fixed sum (on average 91% of the total charges), a variable charge per vehicle mile (on average 3%) and where appropriate a separate variable charge for traction electricity (on average 6%). There is no variable element in the station Long Term Charge.
- 3.11 The main conclusions from the levels review were that charges in 1995/6 should, overall, be 8% lower in real terms than they were in 1994/5 (i.e. RPI-8) and that they should then fall by 2% a year in real terms in the subsequent 5 years (i.e. RPI-2). The Regulator's decision to implement a rebasing of 8% reflected the fact that he was not

convinced that Railtrack, which at the time was a government owned company, needed an 8% return on the modern equivalent asset value of its assets either to enable it to finance its activities or to enable Government to privatise it. The 2% real reduction broadly reflected the rate of reduction in its total costs which the Regulator believed Railtrack could achieve over the duration of the control.

- 3.12 In reaching his conclusions, he decided that whereas track and station charges would be administered by him, the interests of depot users would be better protected by putting in place a framework of negotiation which would enable users to determine which depots they wished to operate from. The charges negotiated for depots still require the Regulator's approval to ensure that Railtrack is not able to exploit any monopoly power. Depot charges will not be modified as a result of this review.

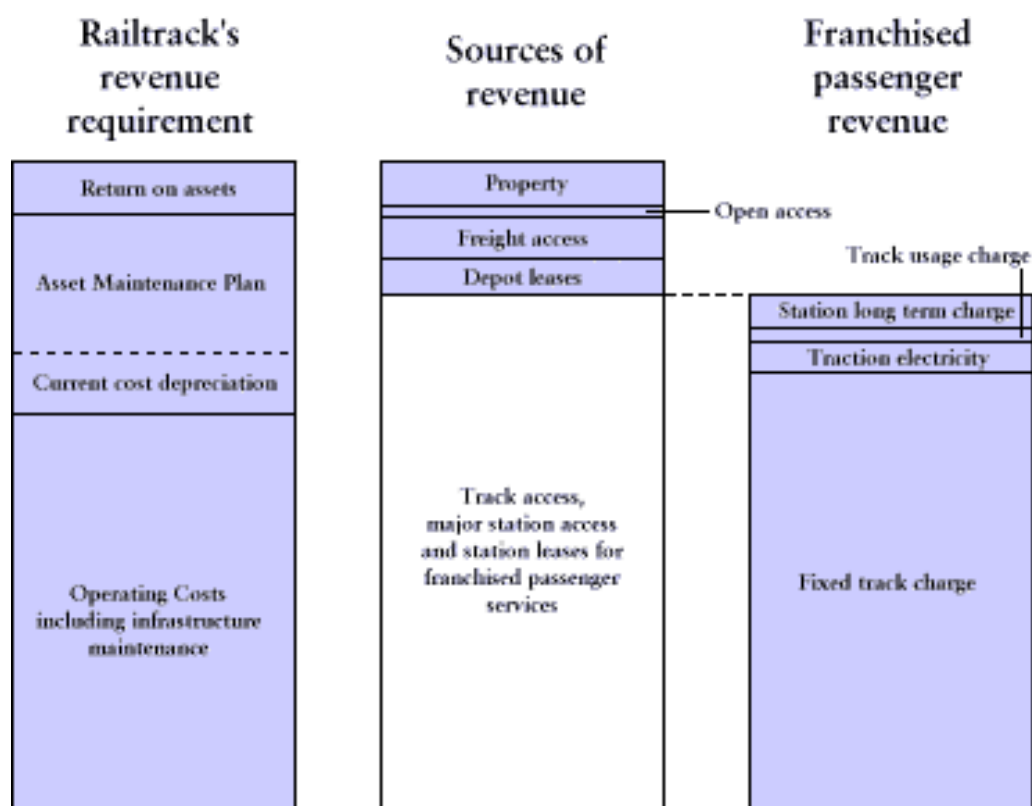
4. The nature of the control on Railtrack's charges

- 4.1 Railtrack is the monopoly supplier of track and signalling in the UK and as such it is appropriate that controls are placed on the prices it charges and the quality it delivers. The monitoring and delivery of the service Railtrack provides and its reliability and performance are discussed in more detail in Chapter 6. This chapter sets out the issues which relate to the controls applying to Railtrack's charges.

The current controls on Railtrack's charges

- 4.2 In setting the price control previously the Regulator adopted the RPI-X formula used by other utility regulators with a profit sharing mechanism applied to Railtrack's property revenue. The RPI-X control constrains increases in Railtrack's track access charges to a specified level of X below the rate of inflation as measured by the retail price index (RPI). It provides a continuing incentive to improve efficiency because Railtrack retains the gains from greater efficiency (i.e. over and above the 2% anticipated in the control) and bears the losses of inefficiency for the duration of the control.
- 4.3 Under the current regime, revenue from franchise passenger train operators was determined by the Regulator in January 1995 for those services specified in their access agreements for track and stations at that time. (See paragraphs 3.9 to 3.12 for a description of the previous review.) In addition to specifying the fixed and variable charges in the track access agreements and the Long Term Charge in the station access agreements, they also contained a price variation mechanism. Charges increase by 2% a year less than the RPI for the period from 1996-97 to 2000-01.

Figure 4.1 Using the single till to set access charges for franchised passenger operators



- 4.4 The Regulator established these charges by first identifying the total amount of revenue which Railtrack required to carry out its activities taking account of the scope for efficiency savings and a sufficient return on capital to allow the company to finance its activities (Column 1 of Figure 4.1). He then identified separately the revenue which Railtrack was likely to be able to generate from activities other than station and track charges for franchised passenger train operators (Column 2). The residual was identified as the amount to be paid by franchised passenger operators for access to track and stations (Column 3). It was divided into different charges on the basis of the underlying cost structure of Railtrack's operations. This method of administering Railtrack's charges for franchised passenger operators on the basis of the total revenue it requires and generates from other sources is known as the "single till".
- 4.5 In setting access charges for franchised passenger services previously, the Regulator decided that the most appropriate way of treating Railtrack's revenue was on the single till basis. Railtrack supplied the Regulator with financial revenue projections for all its non franchised revenue for ten years. Having reviewed these projections and

the assumptions underpinning them the Regulator then prepared his own financial projections. At the time of the review there was considerable uncertainty over Railtrack's property portfolio and the amount of revenue which would accrue to it over the course of the control period. The Regulator therefore decided to apply a profit sharing mechanism to revenue generated in excess of Railtrack's forecasts for the control period. Broadly speaking this meant that franchised passenger access charges were set on the basis that Railtrack would generate £1 billion over the six year period from its property activities and that any net income generated in excess of this figure would be shared, 75% to Railtrack and 25% to the franchised passenger train operators.

- 4.6 The charges for franchise passenger services were set on the basis of the existing level of service as specified in the access agreements. Variations to the charges reflecting changes in the level of service can be negotiated by train operators with Railtrack. The change in the charge should cover at least the change in Railtrack's costs as a result of the variation. In addition the Regulator recognised that changes in access charges could legitimately exceed changes in costs and involve a degree of benefit sharing. Where a train operator is bearing all or the majority of the revenue and cost risk (in the case, say, of service expansion which requires no enhancement to Railtrack's network), then the appropriate share of benefits for Railtrack will be low and in many cases may be zero. Amendments to the charges when agreed between Railtrack and the train operator require the Regulator's approval.
- 4.7 The Regulator recognised that, for some of the non franchised revenue which Railtrack generated, it still retained monopoly power. He therefore put in place a framework of negotiation for freight access and depot lease charges. The Regulator published criteria against which he would decide whether to approve the charges negotiated by Railtrack and the freight and depot operators. The criteria were designed to prevent charges being excessive, distorting competition or resulting in cross subsidies.

The use of a single till to set the control

- 4.8 As part of this review the Regulator will want to consider whether the approach to the single till is the most appropriate way of resetting access charges for franchised passenger services.
- 4.9 He will also want to consider the most appropriate way of dealing with uncertainty over Railtrack's future revenue earnings. For example, Railtrack currently earns

approximately £160 million per annum from freight services, of which the majority is generated from a single customer, English Welsh and Scottish Railways (EWS). The current expiry date for Railtrack's contract with EWS is 31 March 2001. In reaching his conclusions on charges in 2000, the Regulator will therefore have to take a view on what the future level of revenue generated from freight will be. He may decide that as a result of this uncertainty over the actual level that it would be appropriate to consider some form of profit sharing mechanism in the same way that exists for property currently.

- 4.10 With the exception of the agreements associated with West Coast Main Line upgrade and Thameslink 2000, which the Regulator is currently considering, none of the track access agreements containing negotiated as opposed to administered charges extends beyond this control period (i.e. 31 March 2001). The Regulator will therefore also need to consider what principles he should adopt in forecasting the future levels of revenue which will be generated from passenger operators other than franchised operators. He will need in particular to consider what the implications are for the revenue which Railtrack could generate from open access passenger operators as a result of modifications to the policy which he is currently reviewing restricting competition between passenger train operators.

The form of the control

- 4.11 In determining which is the most appropriate form of control at this review the Regulator will need to consider:
- the treatment of under-delivery on Railtrack's investment commitments during the current control period, below his expectations at the time when he set the charges for franchised passenger services;
 - the treatment of out-performance by Railtrack during the current control period in terms of the performance improvements and efficiency savings it has been able to achieve over and above the 2% included in the price control; and
 - whether the control should be focused on the prices Railtrack charges, the revenue it generates or the profit it makes.

Under-delivery

- 4.12 The RPI-X formula creates strong incentives on Railtrack to cut its costs. The Regulator will want to make sure that Railtrack does not achieve this by reducing the quality of the service it provides. This is discussed in more detail in Chapter 6 -

Capability, Quality and Performance of the Network. In the context of deciding on the form of control which he adopts, the Regulator will need to consider whether the capital investment programme which Railtrack has carried out, and in particular its programme of backlog spending at stations and depots for which special provisions were made at the time of the last review, has been delivered or not. In judging this, the Regulator will want so far as possible to focus on the delivery of planned outputs and performance. As the Regulator said in setting the level of charges in 1995, if he concludes that Railtrack has under-delivered on its capital investment programme or delivered later than originally expected, he will need to decide whether there should be a significant reduction in prices to compensate its customers. The Regulator will also wish to consider whether in future there should be provision for access charges to be adjusted between periodic reviews if Railtrack does not deliver its commitments.

Out-performance

- 4.13 In setting an RPI-X control regulators need to decide how they will treat the previous out- performance of the company. This is not a question of clawing back the additional efficiency which Railtrack has been able to achieve over and above the level which was anticipated at the previous review. However, as the Regulator said in Railtrack's prospectus statement at the time of flotation "... where Railtrack's financial performance is better than expected for reasons other than greater efficiency, I would not consider it appropriate for the entirety of such benefits to be passed onto shareholders to the exclusion of Railtrack's direct and indirect customers".
- 4.14 In the event that Railtrack generates efficiency savings over and above the 2% anticipated at the last review the Regulator will need to determine whether to reflect these immediately in a one off cut in access charges (which is often referred to as a P0 adjustment) or, alternatively, to adopt a glidepath approach which reduces rates of return over time. The Regulator recognises that removing the efficiency savings from Railtrack at the time of the review may dampen incentives on Railtrack to generate them in the first place. However on balance he considers that this may be outweighed by the benefit of passing efficiency savings back to Railtrack's customers sooner rather than later. Similar consideration will need to be given to out-performance under the performance regime.

Price, revenue or profit control

- 4.15 In the case of Railtrack, the RPI-X control applies to all of Railtrack's charges for franchised passenger services. This is a control on the prices which Railtrack can charge and not on the total amount of revenue which it can generate, although the

large fixed charge which is contained within these access agreements could be said to provide an element of revenue control. Controlling the prices which Railtrack charges in principle gives it incentives to expand output to earn increased revenue for as long as additional revenue is greater than the additional costs it incurs. A pure revenue control would set a maximum on the amount of revenue which Railtrack could generate from a particular business. This would therefore provide the company with strong incentives to reduce costs but none to expand output.

- 4.16 The Regulator currently favours a control mechanism which does not constrain the amount of revenue which Railtrack could potentially generate since, by implication, constraints on revenue may also constrain the overall capability of the network. Changes to the structure of Railtrack's charges will also be important in this respect (see Chapter 5).
- 4.17 An alternative approach to the RPI-X control, which has been described above in the context of property, is a profit sharing control. Proponents of profit sharing argue that it provides the incentives to achieve efficiency savings whilst at the same time sharing the benefits of those efficiency savings in the form of increased profit in an acceptable way between shareholders and customers. Depending on the proportion of profits retained by a regulated utility, a profit sharing control applied on its own to all of its profits may have many of the disadvantages of rate of return regulation, in particular the reduction on incentives to achieve efficiency savings. An alternative approach which the Regulator may wish to consider would be its application in combination with an RPI-X control. In broad terms, once profits reached a particular level a proportion could be returned to the utility's customers in the form of a rebate.
- 4.18 At present, as set out in paragraph 4.5, there is a profit sharing mechanism on the revenue generated in excess of £1 billion on Railtrack's property revenue. The Regulator will want to consider what effect this has had on the way Railtrack managed its property portfolio. In so doing he will also want to consider whether to extend the scheme for the following price control period and whether it would be desirable to extend its scope to cover other areas of Railtrack's non franchised business.
- 4.19 The use of the RPI-X control and its success in passing on benefits to customers is currently being considered more generally by the Government review into utility regulation. The Regulator will have particular regard to the review findings, which it is expected will appear in a Green Paper shortly, in developing his detailed proposals for Railtrack's charging framework.

Duration of control

- 4.20 The Regulator concluded at the previous review that the control should have a duration of six years (i.e. to extend five years from the expected date of privatisation of Railtrack). A shorter period would not have provided the certainty necessary to enable Railtrack and operators to plan developments in services, and may restrict the incentives on Railtrack to generate efficiency savings. A longer period would have increased the risk of divergences between projections and outturns for reasons outside the control of Railtrack management.
- 4.21 The Regulator will need to determine whether the balance in these arguments has changed and if so what effect this will have on the most desirable duration for the next control. In addition he will wish to consider whether there are advantages in having a process for interim adjustments during the course of the control. The interim adjustment could be triggered by an event (such as refranchising).

Issues for consultation

- 4.22 The Regulator invites the views of consultees on the form of the new control and in particular:

Scope of control

- the use of the single till and its scope in setting Railtrack's charges for franchised passenger services;

Form of the control

- the most appropriate way of dealing with under-delivery by Railtrack in its capital investment programme;
- whether there should be an initial reduction in access charges (P0 adjustment) to pass on out-performance to Railtrack's customers immediately or whether it should be introduced over time;
- the merits of controls on Railtrack's revenue, prices or profits; and

Duration of control

- the duration of the control and the pros and cons of including an interim adjustment process.

Timing

- 4.23 In the light of the responses the Regulator receives on this consultation and on the basis of further analysis, he intends to publish his proposals on the form of the control by the end of 1998. He is working to produce final conclusions on the form of control during 1999.

5. *Incentives to use and develop the network*

The current structure of charges

- 5.1 More than 90% of the track access charges paid by franchised passenger operators in their original access agreements are fixed with, on average, less than 10% of the total charge paid by franchised operators varying with the number and type of services operated. At the time of the last review the Regulator concluded that there was insufficient information to establish a robust framework of charges reflecting cost of access by time and geography (for example, to reflect congestion costs on different parts of the network) or the value of rights with different characteristics (for example, departures which are always on the quarter hour). Instead he decided that such variability should be allowed to develop over time, as a result of negotiation between train operators and Railtrack.
- 5.2 The current regime enables franchised passenger operators to introduce variability into its fixed charge in one of two ways:
- if agreement can be reached by the parties a supplementary agreement modifying their existing agreement can be submitted to the Regulator for approval (under section 22 of the Railways Act). This has been used by most operators to gain additional access rights over and above those in their original access agreements;
 - alternatively a mechanism within the access agreements (contained in Part 9 of Schedule 7) enables a train operator who wants to change its rights (either quantity or quality) to ask Railtrack what the effect of a given change will be on the existing charge. Unlike a section 22 change, the Part 9 process includes an arbitration mechanism which is binding on Railtrack in the event that the parties fail to agree.
- 5.3 The effect of this structure, and in particular the low variable charges, has been to encourage operators to maximise the use of the network by encouraging them to run as many trains as they can within the rights specified in their original access agreement. At the time when the Regulator reached his conclusions on structure of charges during the first review, the imperative was to put in place in a short period of time something which was simple and readily understood by the industry. In effect the structure was the same as the year before and was therefore unlikely to create

confusion. The introduction of the Part 9 process also gave the train operators the flexibility to modify the fixed charge which had been missing previously.

- 5.4 Over time the Regulator has become concerned that these advantages have been outweighed by the disadvantages. In particular he has become concerned that, while the existing structure might encourage the use of the existing network, it has not been successful in encouraging Railtrack to make incremental enhancements to the network. He is concerned that the transaction costs associated with these relatively frequent but financially small negotiations is high. He has also become concerned that information asymmetries and in particular the lack of understanding on the part of train operators about the costs which Railtrack incurs may in total be leading to Railtrack receiving an excessive return. On a number of occasions the Regulator has been required to reject modifications to access agreements on the grounds that Railtrack is sharing in an excessive amount of the benefit which the incremental service generates, in view of the risk which it takes in providing the access.
- 5.5 The Regulator is also aware that the variable charge which is currently included in access agreements for track usage does not reflect the cost of increasing capacity on those parts of the network which are congested. The effect of this is to remove economic signals about where demand for developing the network is sufficient to justify expansion, and would guide efficient use of the existing capacity where it is scarce. Increasingly, the Regulator has found that he has been required to take administrative decisions about the allocation of train paths on parts of the network which are being operated close to or at capacity.

Reasons for revising the structure of charges

- 5.6 In the light of these concerns, the Regulator intends to carry out a detailed review of the structure of Railtrack's charges which focuses on the efficient use and development of the network. He considers there are a number of advantages in carrying out such a review. The first and most important reason is to move to a structure of charges which encourages the development as well as the use of the network. It is not his intention that a revised structure of charges would necessarily tackle the issues associated with significant upgrades or enhancements of the network, such as the West Coast Main Line or Thameslink 2000, which he considers by their nature are best dealt with separately. The Regulator does however want to investigate whether there is a better way of dealing with smaller scale enhancements of the network. The sorts of projects which he has in mind are the remodelling and

resignalling of capacity constrained junctions or the building of loops or additional tracks on capacity constrained routes.

- 5.7 There are a number of other reasons why it may be appropriate to revise the structure of charges. In particular the majority of franchises are currently due to come up for renewal two years after the new control comes into effect. When the Regulator set the charges at the last levels review he did so knowing that the level of service which the Government (through OPRAF) was prepared to buy was broadly the same as that contained in the passenger timetable for 1994-95. He also knew that the Franchising Director was intending to let these contracts for a period of at least seven years. It was not therefore a particular concern to have large fixed charges in the access agreements. However on the basis of decisions arising from the Government's review of integrated transport and its expectations of the role Railtrack will provide, the Regulator will want to make sure that Railtrack is neither under or over rewarded as a result.
- 5.8 Similar issues arise with the possible development of open access operations on the network. The Regulator is currently consulting the railway industry on the development of the competitive framework for passenger rail services. One possible outcome of this consultation is a relaxation of the restrictions which are currently in place to limit competition between the franchised passenger operators. If this was the approach which the Regulator chose to adopt, changes would be introduced in 1999 and would last until 2002 at which time a further review would be carried out. Again, specifying large fixed charges on a train operator basis may not be desirable if there is likely to be significant change in terms of who operates which service.

Developing a work programme

- 5.9 At present there are two different types of variable tariff in Railtrack's charges, one reflecting the cost of wear and tear of the track and the other the cost of electricity consumed. The Regulator considers that there are likely to be other of Railtrack's costs, such as some signalling operations costs and possibly some overhead costs, which also vary with traffic levels. In addition there are other costs which Railtrack incurs in those situations where there is high capacity utilisation. For example, the cost associated with the performance regimes of putting an additional train on a congested part of the network or the opportunity cost which reflects the fact that some operators cannot run the pattern of services which they want to.

- 5.10 A significant element of Railtrack's costs do not vary with traffic levels, but depend on the size and extent of Railtrack's network. It would therefore not be appropriate to reflect them in a structure of charges which varies with traffic levels. For the most part these are the costs which were included in the Long Run Incremental Cost at the last review of charging structure. The Regulator may want to consider whether there are enhancements which can be made to make these costs more geographically specific.
- 5.11 The Regulator will be discussing with Railtrack the work which needs to be carried out to gain a better understanding of cost causality in the provision of railway infrastructure as a precursor to considering revisions to the structure of charges. This work is likely to involve detailed analysis of options and it is for this reason the Regulator has chosen to raise the issue in so much detail in an initial consultation document. The Regulator recognises that before any decisions can be made about the changes in the structure of charges it is important to have some data on which to base decisions. He will be discussing with Railtrack the relative merits of carrying out studies on cost causality for parts of the network against a more broadbrush study for the network as a whole.
- 5.12 The Regulator will want to consider the merits of including in the charging structure measures which more directly affect the number of passengers or passenger revenue, if this would support the objective of promoting the use and development of the network. He will also want to make sure that any revisions to the structure of Railtrack's charges does not lead to discrimination between different users of its network.

Implementation

- 5.13 The Regulator has already commissioned some research on alternative mechanisms for introducing an appropriate degree of variability into Railtrack's charges. The research considered potentially radical solutions to the problem such as slot trading and auction mechanisms. However these failed to meet the criteria of being simple to understand and having low transaction costs. The research came down in favour of developing a more cost reflective set of tariffs.
- 5.14 Without in any way prejudging the important work which must be carried out on cost causality, it is worth considering what sort of mechanisms may be appropriate in revising the structure of charges. One option might be to include in access agreements a tariff table for those elements of Railtrack's costs which vary by output.

Alternatively one could consider a framework not dissimilar to that used currently with the emphasis placed on negotiation but requiring Railtrack to publish indicative tariffs as a means of reducing the information asymmetries between the train operator and itself and potentially also the transaction costs associated with negotiations. If the Regulator concludes that changes to the structure are appropriate and practicable, he will want to give particular thought to the implementation of any changes to ensure that a smooth transition takes place.

- 5.15 At present the Regulator implements his conclusions on the price control through the approval, rejection or modification of access agreements submitted to him by Railtrack and the train operators. Although the Regulator is currently required to implement the conclusions of the periodic review through his approval of amendments to access agreements, he will wish to consider whether there is merit in including some of the charging arrangements within Railtrack's licence rather than access agreements. For example it may be possible to specify an overall price cap or a profit sharing mechanism within the licence but to retain the individual charges within the access agreements. The use of the licence to implement some elements of the price control in the longer term may be desirable as a means of reducing the administrative cost associated with the individual approval of access agreements and modifications to them. The Regulator will want to investigate whether there are legal constraints in the drafting of the Railways Act which restrict his ability to use the licence as a means of regulation where the access regime can be, or has been, applied.

Issues for consultation

- 5.16 The Regulator invites the views of consultees on the structure of Railtrack's charges and in particular:
- the advantages and disadvantages of the existing structure of charges and the incentives it creates and the signals it sends to use and develop the network;
 - possible changes which could be made to the current structure of charges to improve incentives to Railtrack, train operators and funders to use and develop the network efficiently; and
 - desirable features of, and pitfalls to avoid in, an alternative structure of charges.

Timing

- 5.17 The Regulator will be starting work with Railtrack on cost causation almost immediately. He will also have regard to work which has been carried out in this area

on other railway networks. He will consider the responses he receives from consultees to this consultation. He is currently intending to formulate and consult on his proposals for any revisions to the current structure of Railtrack's charges towards the end of 1998. He will be working towards producing final conclusions during 1999. He recognises the importance of completing this section of the review sufficiently early to ensure that there is enough time to enable implementation by April 2001.

6. *Capability, quality and performance of the network*

6.1 In order to establish the amount of money in access charges needed by Railtrack for it to fund operational, maintenance and capital expenditure requirements, the Regulator needs to establish what Railtrack should be delivering in terms of the capability, quality and performance of the railway over the period covered by the review. Furthermore he needs to establish how well Railtrack has performed against his expectations in the last charging review.

6.2 In his last charging review the Regulator satisfied himself that Railtrack had sufficient income from access charges to fund the renewal of the network in the appropriate modern equivalent form to deliver the 1994 timetable. Following Railtrack's flotation, the Regulator set out in January of this year more specific objectives for Railtrack. These included:

- timely renewal in the appropriate modern equivalent form;
- proactive and positive approach to the development of the network in a way which reflected the needs of its customers and of rail users;
- current shortfalls in expenditure to be made good in an efficient and effective way;
- Railtrack's plans and investment approval processes to ensure delivery of these objectives.

6.3 Railtrack's commitments to train operators in terms of the state of the railway are set out in access agreements, with requirements to deliver specific fastest journey times and financial incentives to improve operational performance in the performance regimes.

6.4 Prior to the flotation of Railtrack it agreed with the Regulator to publish key performance indicators for the capability, quality and performance of the network, and these are published on a six monthly basis. They include:

- route kilometres and track kilometres open for traffic and in various loading gauge and line speed/axle load category;

- track geometry;
- number of delays and minutes late by cause; and
- temporary speed restrictions (other than those for planned engineering works).

6.5 The Regulator considered that Railtrack's accountability in respect of the maintenance, renewal and development of the network in the light of his expectations at the time access charges were set was inadequate. Railtrack had been required to publish its plans via its annual NMS, but there was no explicit obligation in respect of the adequacy and delivery of those plans. So the Regulator proposed, and Railtrack agreed, a modification to its licence thereby creating explicit obligations. This took effect in September 1997.

6.6 As a result of the new licence condition the Regulator expects that the next NMS, due in March 1998, will contain appropriate measures of the capability, quality and performance of the network, and targets for the future which are consistent with the level of access charges and the Regulator's objectives. For the 1998 NMS these are likely to focus on the reliability and performance of the network and its capability. However, recognising that these are not always unambiguously linked to the underlying health of the assets, the Regulator does expect Railtrack to develop measures of the health and condition of its assets.

6.7 The Regulator proposes to use the NMS due to be published between now and the completion of the periodic review as the key documents in which Railtrack will set out its proposals in terms of capability, quality and performance of the network, and which he will use to review them.

6.8 The Regulator therefore expects that the March 1998 NMS should set out:

- Railtrack's current plans and output targets to 2001;
- Railtrack's current plans beyond 2001;
- Railtrack's proposals for further development of measures and targets.

6.9 The Regulator will review this NMS against his previous charging review expectations, his objectives for Railtrack and the requirements of the new licence condition. If he considers it inadequate, he expects to take appropriate action under the licence, or in terms of adjustments to access charges in the periodic review. He notes that the Franchising Director's revised Objectives, Instructions and Guidance

require him also to review the adequacy of the NMS and he will wish to work closely with the Franchising Director in carrying out his review.

- 6.10 Following review of the 1998 NMS, the Regulator will set out his expectations for the 1999 Statement. He expects that the 1999 Statement will set out Railtrack's proposals for the proposed period to be covered by the next control, in terms of options for the capability, quality and performance of the network, and associated expenditure. The Regulator will review these in detail, having regard in particular to the views of the Franchising Director and other funding bodies. He will also wish to consider the expenditure proposals in the context of his emerging conclusions on efficiency.
- 6.11 Following this extensive review of the proposals in the 1999 NMS the Regulator expects that the subsequent NMS currently due to be published in March 2000, will set out Railtrack's targets for the quality, capability and performance of the network which will comprise Railtrack's commitment over the period covered by the periodic review. The Regulator will want to review with Railtrack the timing of the NMS in 2000 to ensure that it fits appropriately with the Regulator's timetable for producing conclusions on the level and structure of access charges.
- 6.12 In carrying out these reviews of the NMS, the Regulator will also carry out further work which could include:
- benchmarking the quality of Railtrack's performance against other railways and other companies carrying out comparable activities;
 - comparing the quality of service between different zones within Railtrack; and
 - investigating what Railtrack's direct and indirect customers consider to be appropriate and realistic targets for Railtrack to achieve.
- 6.13 The Regulator is aware that Railtrack has a very important role in ensuring safety on the network. In addition to taking into account advice given to him by the Health and Safety Executive, the Regulator also has a duty to have regard to the effect on the environment of providing railway services. He therefore recognised at the time of the last review that there may be certain circumstances where changes in costs arising from changes in legal obligations placed on Railtrack, such as the introduction of new standards on safety and the environment, could be passed through to its customers. The Regulator will consider whether similar provisions should be included in his conclusions at this review.

Performance regimes

- 6.14 The Regulator announced in June 1997 that he had begun reviewing the effect of the performance regimes (covering service punctuality and reliability and the effect of engineering possessions) which he approved in 1995 and 1996. He has received advice from the Rail Users' Consultative Committees concerning the impact on passengers, and he will shortly be carrying out a wider consultation on this area.
- 6.15 Taking 1995-96 and 1996-97 together, Railtrack has actually earned £21 million more in profit and loss account terms from the operation of the regimes than the "break even" position assumed when the access charge supplements associated with the performance regime was set. In addition Railtrack has made provisions of £66 million over the two years in respect of the performance regime. These provisions have been made by Railtrack (to the satisfaction of its auditors) on the grounds of prudence to cover the possibility in future of costs arising from severe weather, major disruptive incidents and statistical variability in the financial results of the performance regime outside Railtrack's control.
- 6.16 The Regulator will therefore need to determine at the time of the review whether any divergence from the "break even" position has been due to greater efficiency on the part of Railtrack over and above that which was anticipated when the regimes were set, or other factors. If he finds that it is due to other factors, then, as he said in his statement for Railtrack's prospectus, he "would not consider it appropriate for the entirety of such benefits to be passed on to shareholders to the exclusion of Railtrack's direct and indirect customers". It is currently the Regulator's intention that any excess benefits to Railtrack which appear in the period up to the review, either through retention of provisions or through profit, should be taken into account in assessing the scope for reductions in access charge levels.
- 6.17 The Regulator expects during 1998 to come to a view as to whether Railtrack's performance up to then, and its plans to 2001 as set out in performance targets in the NMS, do represent efficiency in excess of that anticipated when the regimes were set.
- 6.18 The provision in access agreements for the review of access charges also covers performance regime payments. The Regulator expects as part of his conclusions in the periodic review to set out criteria for the renegotiation of these regimes to cover the remaining length of the access agreements.

Issues for consultation

6.19 The Regulator invites consultees to comment on the issues raised in this chapter and in particular he seeks views on:

- the different methodologies he can adopt as a basis for measuring the current capability, quality and performance of the network, and for setting the targets for the next control period (including the scope for benchmarking Railtrack against other railways and businesses);
- the approach he should take as to whether Railtrack's performance in the current control period is adequate, and in particular whether the performance regime benefits accruing to Railtrack represent super-efficient performance by Railtrack, or other factors;
- the approach proposed of using the NMS as the key vehicle for establishing expectations of the capability, quality and performance of the network; and
- the approach proposed in respect of the renegotiation of performance regimes for the remainder of the access agreement period.

7. Efficiency review of Railtrack's capital and operating expenditure

- 7.1 In setting any control on Railtrack's prices, it will be necessary to determine the likely level of operating costs, capital expenditure and the return which an efficient company would incur over the control period. (Issues relating to the calculation of the return on Railtrack assets are discussed in the next chapter and the Technical Appendix.) The purpose of this chapter is to set out the processes which the Regulator proposes adopting to determine the future efficiency savings which Railtrack could reasonably be expected to make if it operated in a market subject to competitive pressure.

Operating costs

- 7.2 At the time of the last review the Regulator set a price control of RPI-2 on the basis that Railtrack was likely to achieve efficiency savings on its own costs of 3% and on its costs as a whole of 2%. The Regulator intends to investigate whether in the period from 1995-96 Railtrack has exceeded these targets and if so how. In addition to looking at Railtrack's annual accounts the Regulator will also consider the additional information which Railtrack supplies him including its business plans and management accounts. The treatment of out-performance or under-delivery in the current control period is discussed in Chapter 4.
- 7.3 The Regulator will also need to determine what efficiency savings Railtrack can reasonably be expected to achieve from 2001 to the end of the next control period. The Regulator expects there are a number of ways in which Railtrack will be able to achieve efficiency savings. In particular, he notes that Railtrack is in the process of reletting a rolling programme of contracts with infrastructure maintenance and track renewal companies which were sold to the private sector at approximately the same time that Railtrack was sold.
- 7.4 The Regulator expects that during the course of the review Railtrack will supply estimates of the operating costs that it expects to incur. He recognises that in order to do this, Railtrack will need some indication of the quality of output which it will be required to produce. This is likely to involve an element of iteration and Railtrack may be required to supply different estimates for different quality of output. The

decision on the trade off between network capability and performance and cost is one which will require the close involvement of Government.

7.5 The Regulator will want to satisfy himself that the estimates which Railtrack supplies are the most efficient which it can reasonably be expected to achieve. He is therefore considering adopting a number of different approaches to challenge its assumptions. These include:

- benchmarking Railtrack's costs against other companies and railways;
- comparing the expenditure and performance between different zones within Railtrack;
- investigating the business planning processes which Railtrack adopts;
- seeking advice from consultants to investigate the assumptions made by Railtrack and potentially to carry out a more in depth analysis of the companies which supply Railtrack.

Capital expenditure

7.6 The Regulator recognises that Railtrack may often be faced with the decision of whether to increase capital expenditure and thereby reduce operating costs or to carry on with higher operating costs. In reaching his conclusions on the scope for efficiency savings on capital and operating expenditure, the Regulator does not wish to distort the way in which Railtrack reaches these decisions. The Regulator is therefore currently intending to carry out a concurrent investigation into the capital efficiency savings which Railtrack has achieved in this price control and the scope for future efficiency savings.

7.7 Decisions about the level of future capital expenditure will need to be taken by Government. The purpose of this tranche of work is to identify the lowest cost at which the Regulator considers that Railtrack is able to renew the network in its current form or an enhanced form. The absolute level of expenditure will depend on decisions taken by Government about the quality of the network which it is prepared to pay for.

Timing

- 7.8 The Regulator is currently minded to engage consultants to assist him in his review of efficiency. He expects that the results of this work will be made publicly available towards the end of 1999.
- 7.9 The Regulator invites the views of consultees on the approach the Regulator should take in determining the appropriate level of efficiency savings to be reflected in the price control at the next review period. In particular he seeks comments on:
- different methodologies which he could adopt to measure past out-performance by Railtrack and to forecast future efficiency gains for operating or capital expenditure.

8. *Setting the control on access charges*

- 8.1 The setting of any control requires an estimate of the revenue required to finance an efficient company including an appropriate return to shareholders. Chapter 7 has set out the issues raised in estimating the capital and operating expenditure of Railtrack. The purpose of this chapter is to consider in over view the issues which are raised by determining how the overall level of charges should be established and in particular what is the appropriate return on capital for the company. Further detail on these issues is set out in the Technical Appendix.

Cost of capital

- 8.2 In addressing the question about what is an adequate return on the capital already invested in business, the Regulator will have regard to the wide body of evidence which already exists. He has said previously in Railtrack's sale prospectus and at the time of the previous levels review, that at the time of the next review he would have regard to market evidence on the cost of capital.
- 8.3 The return which shareholders require from a network monopoly is likely to reflect the relatively low risk involved. The Regulator is therefore likely to expect a cost of capital well below that received by other UK companies. In particular the railway industry as a whole receives large amounts of government subsidy. The Government has set out on a number of occasions its commitment to winning more passengers and freight to rail and its desire to promote a railway which operates as a network and is integrated with other forms of transport. On this basis the Regulator will wish to consider whether the cost of capital for existing assets should be lower than for new investment undertaken by Railtrack and similarly whether investment undertaken by Railtrack on a commercial basis should earn a different rate of return from new investment which is in effect underwritten by government.

Valuation of assets

- 8.4 In estimating the value which should be placed on the assets of Railtrack, the Regulator is currently minded to reject the idea that Railtrack should earn a return on the net replacement cost of its assets and will have regard instead to the money actually paid to purchase the company. The Regulator will also wish to take into account the enhancement investment which Railtrack has made since it was privatised.

- 8.5 He will also consider carefully the work done by other regulators in setting price controls for the first time after a company has been transferred to the private sector and, in particular, he will consider the conclusions which have emerged from inquiries by the MMC.
- 8.6 The valuation of Railtrack's assets, the cost of capital and the method by which the calculation of required revenue is actually carried out are discussed in more detail in the Technical Appendix.

Enhancement

- 8.7 During the course of the current control period, the Regulator has issued two letters of comfort to Railtrack and the Franchising Director about the treatment of access charges associated with the construction of Thameslink 2000 and the initial upgrade project for the West Coast Main Line (as agreed between OPRAF and Railtrack in 1996). The effect of the letters in general terms is to ring fence the cost of the project and in the case of Thameslink to apply a premium over and above the cost of capital for the rest of Railtrack's business to reflect increased construction risk.
- 8.8 The Regulator is also aware that Railtrack is currently negotiating with operators enhancements to the network which will be undertaken on a commercial basis i.e. the services will not receive the financial support of the Franchising Director. The Regulator will want to make sure in the same way that the Franchising Director should not indirectly subsidise freight services and that he does not inadvertently subsidise commercial network enhancements voluntarily undertaken taken by Railtrack. He will want to make sure that if such projects fail commercially, the Franchising Director does not pick up the cost unless he chooses. The counter to that is that any benefit generated through these commercial schemes should reward the shareholders of Railtrack and should not reduce the amount of subsidy which Railtrack indirectly receives.
- 8.9 In the same way, the Regulator will be concerned to ensure that any diversification by Railtrack Group PLC into activities other than management and operation of the national rail network is properly ring fenced, and that there is no impact on access charges levied by Railtrack PLC.

Issues for consultation

- 8.10 The Regulator invites the responses of consultees on:

- the framework for determining the value of assets, the cost of capital for different types of assets and the methodology for calculating Railtrack's total revenue requirement (referred to in the Technical Appendix); and
- the approach he proposes taking in ring fencing investment decisions taken by Railtrack for commercial network enhancement projects to ensure that they are not indirectly in receipt of subsidy from Government.

9. *Timetable and process*

Transparency

- 9.1 It is the Regulator's intention that the review will be an open and transparent process. The Regulator believes that the legitimacy of his findings will be enhanced in this way.

Consultation

- 9.2 In practice this means that he will consult widely, seeking views from relevant parties on a number of aspects of the review. He recognises that different parts of the review are likely to be of interest to different parties. However for an initial consultation document such as this, the Regulator is keen to receive responses from a wide range of organisations including:

- Railtrack;
- funders including OPRAF, Passenger Transport Executives and local authorities;
- Government and in particular the Department of the Environment, Transport and the Regions, Department of Trade and Industry and Her Majesty's Treasury;
- passenger and freight train operators;
- customers and customer organisations including the Central Rail Users' Consultative Committee and the regional committees, the Rail Freight Group etc;
- suppliers to the railway industry including infrastructure maintenance and track renewal companies;
- investors, lenders and analysts from the City; and
- other regulatory agencies including those responsible for safety issues as well as economic regulation.

- 9.3 In addition to publishing consultation documents for written comment, members of the Office will also be holding on an *ad hoc* basis meetings and seminars with particular groups to discuss areas of special interest to them. Consultation papers will

be placed on the Rail Regulator's website (<http://www.rail-reg.gov.uk>) following publication. The consultation papers will include the Regulator's email address to enable consultees to respond via the Internet. The Regulator will want to give further thought to what other methods of consultation it would be appropriate to adopt during the review, bearing in mind that some of the issues which will be considered during the review are likely to be of a technical nature and will potentially only have a limited appeal.

Confidentiality

- 9.4 In considering the responses to consultation documents, the Regulator starts from the presumption that all responses should be in the public domain. Once a consultation period has ended, the responses will be placed in ORR's library to enable others to comment and also to understand the basis on which the Regulator has reached his decisions. The Regulator will consider responses which are either totally confidential or contain confidential information. However consultees should recognise that the potential usefulness of these responses may be reduced as a result of the requirement for confidentiality.
- 9.5 Railtrack is a monopoly supplier of access to the railway network in Great Britain. On this basis the Regulator expects that information about Railtrack's activities and financial position which should remain confidential is likely to be very limited. He recognises that, for example, information on future staffing levels is likely to fall into this category. The Regulator will be making publicly available the reports of the consultants which he commissions to carry out the efficiency review of Railtrack's future operating and capital expenditure. He expects Railtrack to make available to interested parties any work of this nature which it also carries out. In publishing information, the Regulator will have regard to the legitimate concerns of suppliers to Railtrack who operate in competitive markets and where some issues of commercial sensitivity may therefore exist.

Processes

- 9.6 In addition to carrying out a transparent and open review with an emphasis on consultation, the Regulator is considering other processes which will enhance the legitimacy of the review. In this respect he will have regard to the recommendations which emerge from the Government's review of utility regulation. The Regulator currently receives advice from non-executive directors who bring expertise from academia and the private sector. He will consider whether it is necessary to enhance

their role or whether it may be appropriate to have additional external advisers specifically for the work of the review.

Indicative timetable

- 9.7 The Regulator is required to publish his final conclusions for charges in these agreements by 31 July 2000. The Regulator has developed in very broad terms a proposed timetable for the review which is set out in Table 9.1. In producing the timetable, the Regulator was aware that different strands of work have very different lead times, in particular he has highlighted the relatively large amount of time which he considers will be necessary to investigate the structure of Railtrack's charges. An alternative approach to the one set out in the timetable would therefore be to produce interim conclusions on those strands of work which have shorter lead times, for example, the work on the form of Railtrack's control.
- 9.8 The timetable set out in Table 9.1 does not cover the implementation timetable, following publication of the final proposals.

Table 9.1 Proposed outline timetable for the Periodic Review

	'97	1998				1999				2000	
Quarter	4	1	2	3	4	1	2	3	4	1	2
Initial consultation paper											
Publish consultation paper											
Review responses											
Chapter 4: Form of the control											
formulate proposals											
publish consultation paper											
review responses											
publish conclusions											
Chapter 5: Structure of charges											
review responses and formulate proposals											
publish consultation paper											
review consultation paper responses											
final statement											
Chapter 6: Capability, quality and performance of the network											
review responses and 1998 NMS											
publish consultation paper and review 1999 NMS											
final statement and targets in 2000 NMS											
Chapter 7: Operating efficiency and capital expenditure review											
carry out review											
publish results											
Chapter 8: Corporate finance											
review responses and start further work											
publish consultation paper											
review consultation paper responses											
build and calibrate financial model											
Proposals											
review and check key issues and assumptions											
publish final consultation paper											
review consultation paper responses											
publish final statement											

Issues for consultation

9.9 The Regulator invites comments from consultees on the processes and timetable which he is minded to adopt for the review and in particular seeks views on:

- who he should be consulting and by what method; and
- the outline timetable.

Technical appendix - Financial issues

1. The Regulator has a duty under the Railways Act not to make it unduly difficult for Railtrack to finance its activities. Accordingly, in reviewing both the level and the structure of access charges, he needs to consider the implications of any changes to the level of profits and rate of return which Railtrack is likely to generate in the next control period.
2. At the time of the previous review of the level of Railtrack's charges, Railtrack was a government owned company. Charges were set to provide Railtrack with sufficient revenue to cover its operating costs and to renew the network within the levels of the current cost depreciation shown in its accounts. The Regulator did not set charges on a basis which assumed a particular capital value or cost of capital. He recognised however that at the time of the next review, when Railtrack was in the private sector, it would be appropriate to have regard to these factors as firm market evidence would be available.

General framework

3. In considering what approach to take in determining the future revenue requirement of Railtrack, the Regulator expects to have regard to the wide body of evidence available, including the work of other regulatory offices and academic literature. He has consulted in earlier chapters on the approaches he could take in determining the appropriate levels of operating and capital expenditure. Another important input is the appropriate level of profit (on a forward looking basis).
4. The purpose of this Appendix is to consider the methods by which the appropriate return on capital may be determined and other issues which arise in the context of the Regulator's duty not to render it unduly difficult for Railtrack to finance its activities.
5. There are essentially two elements to the examination of the appropriate level of return on capital, which is an important input into the Regulator's determination of the appropriate level of charges: namely, the cost of capital; and the appropriate capital value to which the rate of return must be applied. Each element is examined in turn below.

Cost of capital

6. The cost of capital is the rate of return demanded by the providers of capital to invest in or lend to a particular business or project. Although there are many forms of finance available to companies they can usually be classified as either debt or equity. The overall cost of capital can then be calculated as the weighted average of the cost of debt and equity, with the weighting being determined by the likely proportions of debt and equity in the company's balance sheet during the period under consideration.
7. In estimating the appropriate cost of debt for Railtrack the Regulator will have regard to the current cost of Railtrack's debt finance and to Government borrowing costs, as evidenced in the gilt edged market.
8. Estimating Railtrack's cost of equity finance is less straightforward. There are a number of methods of estimating the cost of equity to a company. The two most commonly used are the Capital Asset Pricing Model (CAPM) and the Dividend Growth Model (DGM).
9. The CAPM derives the cost of equity as the sum of the risk free rate plus a risk premium. The risk premium required by equity investors to compensate for the specific risk associated with the particular company's shares reflect a general risk premium for equities over bonds and a factor, beta, which measures the degree to which the shares in question fluctuate with movements in the market as a whole. The DGM calculates equity returns on the sum of the dividend yield and the expected growth in dividends. Both the CAPM and the DGM present difficulties in practice. The Regulator will need to consider which approach or combination of approaches to adopt.
10. Although in the past there has been considerable debate as to the appropriate level of the cost of capital for regulated activities, something close to a consensus has emerged, at least amongst regulators, that the real pre-tax cost of capital in current circumstances falls in the range of 6% to 8% and cost of capital figures within this range has been endorsed by the MMC on a number of occasions. The Regulator invites views on whether this range is equally applicable to Railtrack or whether, taking account of the fact that Railtrack is a monopoly network supplier (in contrast to some other utilities), a lower cost of capital figure might be more appropriate.
11. The Regulator will also want to consider whether a single cost of capital is appropriate for a company like Railtrack, which on one level has many elements in common with other network utilities but on another level is significantly different in

that it is indirectly in receipt of large amounts of government subsidy which affects its risk profile. In particular he will wish to consider whether different parts of Railtrack's business should earn different returns. The possibilities which the Regulator may wish to consider include a return on assets in the regulatory asset base (RAB), a return on additional assets which are funded by government and a return additional capital expenditure undertaken on a commercial basis. In one specific case, Thameslink 2000, the Regulator has already recognised that the additional risk associated with construction of this particular project was sufficient to warrant a premium over the cost of capital for Railtrack's business as a whole.

12. The Regulator recognises that a decision to identify how the cost of capital varies with Railtrack's activities may have implications for the methodology which is used to calculate it.

Initial valuation of the asset base

13. It is widely acknowledged that the value implied by a regulated company's current share price is not an appropriate basis on which to establish the RAB as the price is likely to be influenced by among other factors expectations on the outcome of the review itself and hence introduce an element of circularity. Similarly it is acknowledged that the current cost value or replacement cost of existing assets which, in the case of Railtrack, is considerably higher than the market value of Railtrack at the time of flotation, is also not an appropriate basis on which to value Railtrack since this would over reward the shareholders at the expense of the customers.
14. The Regulator stated in his conclusions on the previous review of Railtrack's charges in January, 1995 that "At the next review of charges, the Regulator would expect to have regard to Railtrack's value at, and after, flotation ...".
15. The question of the appropriate level of the RAB for the first periodic review post flotation has been considered in some detail by the MMC on a number of occasions, including most recently in carrying out its inquiry into Northern Ireland Electricity (NIE) plc (March 1997). In particular it considered the different percentage mark-ups for other privatised utilities on the share price at the time of flotation which were used to set the equity element of the RAB at the first review. The table below, which was used by the MMC, summarises the uplift over the full offer price and over the price at the close of the first day's trading for water and sewerage companies and power companies which were used as an input to the RAB. It also includes the conclusions the MMC reached in the case of NIE.

Table 1 Estimated uplifts in regulatory utilities

Utilities	Uplift over full offer price undiscounted (%)	Uplift over fully paid close of first day undiscounted (%)
<i>Water and sewerage</i>		
Anglian	26.3	5.0
North West	22.9	7.3
Northumbrian	28.8	4.0
Severn Trent	17.1	3.7
Southern	17.1	0.0
South West	27.9	7.0
Thames	21.7	5.8
Welsh	27.9	9.3
Wessex	24.6	1.7
Yorkshire	28.8	6.9
<i>Energy</i>		
Scottish Hydro Electricity	5.4	-3.4
Scottish Power	2.9	-3.1
RECs Distribution	First assessment: 50% uplift on close of first day trading Second assessment: 15% uplift on close of first day trading	
National Grid	20% uplift on close of first day trading	
British Gas (MMC, 1993)	26% uplift on close of first day trading	
NIE (MMC, 1997)	7.5% uplift on close of first day trading (approximately a 20% uplift on flotation price)	

Note: Water and sewerage companies are based on a comparison of their average share prices over 200 days with their offer prices and their close of first day prices (undiscounted). SHE and Scottish Power are based on a comparison of their average share prices over 100 days with their offer prices and their close of first day prices (undiscounted).

Source: MMC Report on Northern Ireland Electricity plc (Table 9.11 and paragraph 2.84)

16. In determining the appropriate starting point of the RAB the Regulator will have regard to the methodologies adopted by other regulators at the first price control review following flotation. He will want to decide whether the market value around the time of flotation which has been adopted in a variety of forms by other regulators

in determining the equity element of the RAB is appropriate in the case of Railtrack or whether there is another more appropriate methodology.

Rolling the RAB forwards to 2001

17. Having determined what the initial value is, the Regulator will need to consider how it should be rolled forward firstly from the time of flotation to the end of this price control and secondly from the start of the new price control in 2001. For consistency, the Regulator considers that he should adopt the same approach which he took in setting the price control for the period up to 2001, namely that he will add into the asset base the backlog and enhancement expenditure which was allowed for at the time of the last review to the extent that Railtrack has carried out this expenditure and deduct any Asset Maintenance Plan accrual. In line with the approach in Railtrack's regulatory accounts, it is proposed that the RAB will be indexed by RPI. As he allowed for the full capital maintenance of Railtrack's assets in setting its charges, he is currently proposing not to make any changes to the RAB in this respect.

The RAB from 2001 onwards

18. In setting charges for 2001, the Regulator is seeking views on how the RAB should be rolled forward from 2001 onwards. In the event that the RAB is set at a value which is less than that of the existing assets in current cost terms, the Regulator needs to ensure that shareholders are not unduly rewarded when setting prices. This can, in essence, be done in one of two ways: either by allowing for the maintenance of existing assets in full in setting price limits, which has the effect of freezing the regulatory value of those assets as the Regulator did in his first review of Railtrack's charges; or by abating the depreciation charge by the ratio of the market value to the asset value (MAR) but allowing the regulatory value of existing assets to increase over time towards the replacement cost. On the basis of the current cost asset value of Railtrack and a RAB based on the initial market value at the time of flotation, the MAR for Railtrack is significantly less than one.
19. Although both approaches as described have the same present value, choosing between the different approaches will depend on factors such as:
 - the size of the MAR, and hence the significance of the difference between the approaches;
 - the desired profile of charges, taking account of the interests of customers and the implications for the financial profile of charges for the company;

- the implications for incentives of preserving a regulatory asset value permanently below the replacement cost value; and
 - the extent to which the absence of regulatory commitment on future levels of revenue beyond the control period being considered increases the cost of capital in scenarios where revenue is deferred.
20. If the Regulator did adopt a MAR approach he would also need to consider how this should be applied to the Asset Maintenance Plan (AMP) charges which Railtrack currently shows in its accounts. These charges are intended to smooth its expected future level of renewals expenditure to keep track, route structures, stations and depots in a state which meets the requirements of statute and its contractual liabilities. The AMP charge therefore has characteristics similar to a depreciation charge.

Financial indicators and modelling

21. Having come to a view on individual elements of the price control review, including the appropriate cost of capital, the Regulator will want to consider what other tests are necessary to ensure that he is acting in accordance with his duty to act in a manner which he considers will not render it unduly difficult for Railtrack to finance its activities. He is likely to consider it relevant to assess the impact on the financial accounts, the cash flows, gearing and operational viability. In addition he may look specifically at the role which ratios, such as interest cover and dividend cover, can play in complying with his duty not to render it unduly difficult for Railtrack to finance its activities. This may be more relevant if at the time of the next control Railtrack is undertaking a significant capital enhancement programme.
22. The Regulator is also keen to make sure that significant changes in Railtrack's balance sheet (for reasons other than the financing of network enhancements for the benefit of franchise passenger operators) do not impact on the cost or ability of Railtrack to provide the appropriate network capability and performance. He recognises that at the time of the previous review of Railtrack's charges, and subsequently at flotation, sufficient headroom was left to enable Railtrack to finance through debt large scale enhancements to the network such as Thameslink 2000. If Railtrack chooses to make significant alterations to its balance sheet before 2001 which would either effect its ability to finance its activities during the current control period or during the next control period, the Regulator would not expect to reflect this in the future level of access charges. The Regulator may wish to reconsider the ring fencing of Railtrack's

regulated activities in the light of the Government's review of utility regulation and any relevant MMC inquiries.

23. It is for Railtrack to determine its own tax affairs. However the Regulator will wish to consider the most appropriate way of dealing with taxation in modelling Railtrack's financial position and in particular in calculating the cost of capital.

Out-performance

24. The Regulator will want to consider the approach he should take on capital efficiency savings generated in the current control period. Firstly he will want to identify whether Railtrack has achieved capital efficiency savings or to identify under performance where this has taken place. To the extent that Railtrack has achieved capital efficiency in the current control period he will need to decide how to share this out-performance between shareholders and customers. He could either adopt a P0 approach and reflect all capital efficiency savings in the RAB at 2001. Alternatively he could adopt a glidepath approach and phase the benefit of any capital efficiency savings achieved in the current control period over part or all of the next control period and beyond. Similarly the Regulator will also need to consider what approach he should take to capital expenditure which was allocated for the current control period. He might want to consider it as pre-funding for capital expenditure in the next period. The approach which the Regulator may adopt is discussed in more detail in the context of the whole of Railtrack's expenditure in Chapter 4.

Issues for consultation

25. The Regulator will consult on the individual elements discussed in this appendix. However he considers that it would be helpful to have comments on the following general issues:
- the importance of different methodologies in determining an appropriate cost of capital for all or part of Railtrack's business;
 - the extent of the differentiation which should be made between Railtrack's existing assets and any enhancement undertaken by Railtrack;
 - the measures which the Regulator could adopt to keep the cost of capital low, for example, adopting different rates of return and by ring fencing specific projects;

- in respect of the RAB whether it is appropriate to treat Railtrack like other regulated utilities and if so what can the Regulator learn from the approaches adopted by other regulators;
- in the case of Railtrack what is the balance of arguments in favour of adopting a full capital maintenance approach or applying a MAR;
- the factors which should be taken into account in considering the risk profile of Railtrack;
- the role of financial indicators and ratios in complying with his duty not to render it unduly difficult for Railtrack to finance its activities; and
- whether he should adopt a one off reduction in access charges (P0 and reflect the full value of capital efficiency savings in the level of charges at 2001 or a more phased approach ("glidepath").