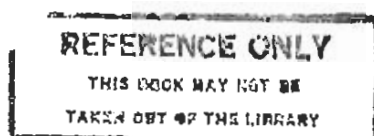


DEPARTMENT OF TRANSPORT

## RAILWAY FINANCES

Report of a Committee chaired by  
Sir David Serpell KCB CMG OBE



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# THE REVIEW OF RAILWAY FINANCES

Report of a Committee chaired by Sir David Serpell KCB CMG OBE

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## SUPPLEMENTARY VOLUME\*

Diagrams of the existing network and traffic (appended to Mr. Goldstein's report)  
Summary report to the Committee by R Travers Morgan & Partners (consulting engineers)

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\* To be published by HMSO (ISBN 0 11 550591 1).

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Secretary of State for Transport  
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2 Marsham Street  
LONDON SW1

20 December 1982

Sir

You appointed us on 5 May 1982 with the following terms of reference:

"To examine the finances of the railway and associated operations, in the light of all relevant considerations, and to report on options for alternative policies, and their related objectives, designed to secure improved financial results in an efficiently run railway in Great Britain over the next 20 years"

and we now submit our Report.

To our regret, on the afternoon of 9 December, one of our members, Mr Goldstein, told us that he could not support our Report and intended to submit a separate one to you. In these circumstances, we have deferred for some days the submission of the Report. We do not know what Mr Goldstein's observations will be, but would not expect them to affect what we ourselves have said, notably in Chapter 6, where we have based our remarks on advice received, through Mr Goldstein, from R Travers Morgan & Partners.

As we say in our Conclusion, we hope that our work will provide you with the foundation on which to decide future policy for the railway and that it will provide the Board with the material on which they can take early action to improve their finances.

We are, Sir, Your Obedient Servants

DAVID SERPELL

*David Serpell*

LESLIE BOND

*Leslie Bond*

JAMES BUTLER

*James Butler*

*E B C Osmotherly*  
E B C OSMOTHERLY  
(Secretary)



# THE REVIEW OF RAILWAY FINANCES

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## INTRODUCTION

1. We were appointed on 5 May 1982 with the following terms of reference:

“To examine the finances of the railway and associated operations, in the light of all relevant considerations, and to report on options for alternative policies, and their related objectives, designed to secure improved financial results in an efficiently run railway in Great Britain over the next 20 years.”

We were asked to report within 5 or 6 months. The Secretary of State subsequently agreed that we should have an additional month in which to complete our work but stressed his need to have our report as quickly as possible.

2. Our task, formidable in any case, has been made harder by developments since May, including the strikes last summer, and the fact that, unavoidably, the first version of the 1982 Rail Plan was not available until the end of August or the revised version until 1 November.

3. In these circumstances, we have concentrated on:

- the facts of the railway’s present financial position and our assessment of the main problems;
- the extent to which the railway’s financial position might be improved within existing policies; and
- what might be achieved by major changes in, or departures from, those policies.

We have not concerned ourselves to any significant extent with the Board’s non-railway activities. Nor have we made a study of the Board’s performance compared with that of railway undertakings in other countries.

4. We received evidence from over 170 bodies and individuals (listed in Annex A), including the Railway Unions, the Central Transport Consultative Committee, rail users, local authorities and their associations, academics specialising in transport studies, and people with particular interests. Most of the evidence came, of course, from the British Railways Board and the Department of Transport, both of whom answered our many enquiries helpfully and uncomplainingly, despite their many other preoccupations.

5. While we have paid close attention to the evidence, we have not by any means addressed all the issues raised with us. This is mainly because our review has been concerned with the railway’s finances, not transport policy.

6. Our report is a summation of our own views as an independent Committee, but we have been greatly helped in reaching them by the professional advice of two firms of consultants. R Travers Morgan and Partners (TM)—of whom one of our Members, Mr Alfred Goldstein, is Senior Partner—were commissioned to advise us on engineering aspects of the railway’s finances and to develop and evaluate the illustrative “network options” in Part II of our report. Another of our Members, Mr P J Butler—a senior partner of Peat, Marwick, Mitchell & Co (PMM)—had been commissioned by the Secretary of State on 31 March 1982 to conduct a study of the Board’s 1982 Budget. The study was submitted to the Secretary of State on 28 July and made available to us at the same time. Later, PMM were commissioned to advise us and the Department of Transport on the Board’s 1982 Rail Plan. We also engaged PMM to assist in the preparation of factual material for this report and to collaborate with TM in the evaluation of the network options. (The terms of reference given to both firms of consultants are at Annexes B and C.)

7. The Secretary of State expressly asked for our views on both the short and the longer-term aspects of our terms of reference. In Part I, we examine the short-term financial prospects assuming no material changes in the size of the railway or in the policies affecting it. As to the longer term, the Secretary of State told us that he hoped we would “open the doors” to discussion of a wide range of possibilities, and Part II is directed to that end. Much of the work done on the “network options” in that Part required our consultants to develop the application of established transport planning techniques in a very limited time. The results are a deliberate attempt to illustrate a broad range of possibilities. More detailed work, in which the Board should be involved, would be required if it were decided to move in any of the directions we have illustrated.

8. Throughout our work we have had the benefit of the able and unstinted help of Mr E B C Osmotherly, our Secretary, Mr A T Baker and Miss C M Egerton. We record our warm thanks to them; to Mr W P Bradshaw, our main contact with the Board; and to Miss A Harvey, Miss T Hooper and Miss P Shanahan who typed (and retyped) untiringly and well.



## Technical Notes

1. All the financial figures in the report are expressed in 1982 prices except where otherwise specified.
2. Where appropriate, we have given estimated 1982 results for the railway by reference to the Board's forecast based on the actual results of the first 32 weeks. These estimates take into account the effects of the industrial disputes in 1982.
3. The 1982 results could not, however, be adopted for the purposes of the engineering study conducted for us by TM. The study had to use the latest available factual records, which were for 1981. The amount of the savings judged to be the outcome of taking various actions was expressed in the Engineering Summary Report in terms of the results such actions would have had in 1981 if they had been completed prior to 1981. This should be kept in mind in considering the references in our report to the engineering study, especially in Chapter 6.
4. It was also necessary to devise a methodology for forecasting the likely financial results of a railway of broadly the present size and level of service in 1992 and for illustrating the financial and other effects of the "network options" discussed in Part II. The methodology used by our consultants is outlined in the relevant sections of Part II.
5. A glossary setting out the meanings of the terms and abbreviations used in the report is at Annex D.

## CHAPTER I

### SETTING THE SCENE

1.1 The British Railways Board were created in 1962 as one of the successors to the British Transport Commission. The Board have two main statutory duties:

- (a) "to provide railway services in Great Britain and, in connection with the provision of railway services, to provide such other services and facilities as appear to the Board to be expedient, and to have due regard, as respects all those railway and other services and facilities, to efficiency, economy and safety of operation" (Section 3(1), Transport Act 1962); and
- (b) "so to perform their functions . . . as to secure that the combined revenues of the authority and its subsidiaries taken together are not less than sufficient to meet their combined charges properly chargeable to revenue account, taking one year with another." (Section 41(2), Transport Act 1968).

1.2 The scale of the Board's railway activities is huge. For example:

- (a) The national rail network covers nearly 11,000 route miles.
- (b) Total railway expenditure in 1981 was £2,477 million and total railway revenue (before grants) was £1,692 million (in 1981 prices).
- (c) Every day, Monday to Friday, people make nearly 2 million passenger journeys by rail using a total of nearly 16,000 passenger trains, calling at 2,360 stations in England, Scotland and Wales.
- (d) The railway runs about 1,900 freight trains a day. These carried a total of 154 million tonnes in 1981.
- (e) The railway (including British Rail Engineering Ltd) employs about 200,000 people.

1.3 Nevertheless, the importance of the railway within the national economy has much declined. In 1980, the railway carried only about 54 per cent as much freight (by weight) as it did in 1950; and while total passenger travel (by rail, bus and car) nearly trebled between 1950 and 1980, rail passenger miles decreased marginally (see Table 1.1).

TABLE 1.1: Trends in Passenger & Freight Traffic, 1950-1980

Mode	1950 Millions		1960 Millions		1970 Millions		1980 Millions	
	Passenger Journeys	Passenger Miles	Passenger Journeys	Passenger Miles	Passenger Journeys	Passenger Miles	Passenger Journeys	Passenger Miles
Rail <sup>1</sup>	980	20,130	1,040	21,500	820	18,850	760	19,650
Bus	16,710	50,800	13,680	42,780	9,150	32,900	6,780	26,000
Car	n.a.	32,900	n.a.	89,300	n.a.	191,600	n.a.	262,300
Freight	Tonnes		Tonnes		Tonnes		Tonnes	
	Tonnes	Tonne miles	Tonnes	Tonne miles	Tonnes	Tonne miles	Tonnes	Tonne miles
Rail <sup>1</sup>	286	22,440	252	18,910	209	16,620	154	10,940 <sup>3</sup>
Road	780 <sup>2</sup>	17,400 <sup>2</sup>	1,211	30,500	1,610	52,700	1,370	59,330

Notes:

<sup>1</sup> "Rail" refers to the system operated by the BRB (or its predecessors)

<sup>2</sup> Estimated from 1953 data

<sup>3</sup> From 1978 the method of estimating tonne miles changed and the 1980 figure for tonne miles is not directly comparable, therefore, with those for earlier years.

1.4 Expectations about the financial viability of the railway have also changed. Twenty years ago, when the British Railways Board were set up, it was assumed that the railway could be commercially viable and would be able, after a transitional period, to break even financially without the aid of grant. But within a few years, a major financial reconstruction was required, and £1,262 million (out-turn prices) of the Board's debt was written off\*.

1.5 Provision for this was made in the Transport Act 1968. The Act was based on the view that, while most of the railway was commercially viable, some "unremunerative" passenger services would require

\* We have estimated that about £12,750 million (1982 prices) has been received by the Board from Government funds since 1962. (This figure is net of interest and capital repayments, but includes funding of pension obligations between 1975 and 1980). Over the same period, nearly £7,000 million (1982 prices) of the Board's debt has been written off. It is not possible to allocate these amounts specifically to the railway or the other activities of the Board.

subsidy for "social or economic reasons". Section 39 of the Act provided the Transport Minister with power to pay the Board grant for each of these unremunerative services. Railway costs were split between the freight and passenger businesses and the passenger costs then allocated to individual services. The Board claimed grant for individual services (or groups of services) and the Secretary of State decided which of them to support and whether to pay grant for 1, 2 or 3 years at a time. Some of these groups were large; for example, Southern Region's commuter services comprised a single group. By 1974, over 100 services or groups of services were being grant-aided; the total of section 39 payments to the Board that year was over £125 million (about £360 million in 1982 prices).

1.6 The section 39 grant system had some serious defects but what led to the collapse of the financial regime introduced by the 1968 Act was the inability of the unsubsidised railway (freight and the non-grant-aided passenger services) to achieve its commercial remit. A Rail Policy Review was, therefore, conducted jointly by the Department and the Board, and completed in 1974. The report was not published but we understand that its main conclusions were:

- (a) the railway existed primarily for the purposes of the passenger system;
- (b) the standards and, therefore, the costs of track and signalling were determined primarily by the requirements of the passenger system;
- (c) in the light of (a) and (b), where freight shared facilities with the passenger business, it should pay only its avoidable costs;
- (d) on that basis, the freight business was capable (after a short transitional period) of achieving financial break-even without the aid of grant;
- (e) the passenger business as a whole, at anything like its then size, was incapable of breaking even;
- (f) the cost of the passenger system could not be reduced without service closures on a scale disproportionate to the expected savings;
- (g) grant should be paid for the passenger system and not on a service by service basis.

1.7 The Government of the day accepted the Review's conclusions. They did not envisage a substantial programme of closures but decided to retain—and subsidise—the rail passenger system as a whole. Provision to pay subsidy was made in the Railways Act 1974 (which also wrote off a further £298 million (out-turn prices) of the Board's debts). By that time, the UK had acceded to the European Community and the method of providing financial support to the railway had to conform, therefore, to the relevant EEC law. Accordingly, in December 1974, the Secretary of State imposed a "Public Service Obligation" (PSO) on the Board under EEC Regulation 1191/69.

1.8 The Direction imposing the PSO provided that:

"The British Railways Board shall, from 1 January 1975, operate their railway passenger system so as to provide a public service which is generally comparable with that provided at present . . .".

This Direction has not been changed since 1974 and is still in force. Under EEC law, the Secretary of State is required to compensate the Board for complying with the Obligation. In 1981, the compensation (PSO grant) amounted to £809 million (in 1982 prices).

1.9 While the PSO Direction applies to the whole of the rail passenger business, in 1977 the then Secretary of State announced that he saw "no case for subsidising inter-urban services" by any transport mode and that the Government considered that "within their general business, British Railways' inter-city services should pay their way" (paragraphs 168 and 171, "Transport Policy", 1977, Cmnd 6386). Since then, it has been the policy objective of successive Transport Ministers that Inter-City should become commercially viable.

## **The Passenger Business**

1.10 The financial results of the passenger business since 1975 have been as follows:

TABLE 1.2: Passenger Business Results, 1975-1982

1982 Prices	1975 £m	1976 £m	1977 £m	1978 £m	1979 £m	1980 £m	1981 £m	1982 <sup>1</sup> £m
Revenue	1,031	1,045	1,090	1,154	1,149	1,167	1,126	927
Costs	1,723	1,663	1,673	1,739	1,794	1,852	1,915	1,874
Additional Depreciation <sup>2</sup>	---	---	---	80	81	83	87	88
Deficit before grant and interest	(692)	(618)	(583)	(665)	(726)	(768)	(876)	(1,035)
Allocated Interest	34	44	45	45	41	42	43	43
Grant:								
PSO grant	677	602	589	545	607	608	722	749 <sup>5</sup>
SRA <sup>2</sup>	---	---	---	80	81	83	87	88 <sup>5</sup>
PTE <sup>3</sup>	43	50	58	61	63	67	65	73
Level Crossings <sup>4</sup>	18	18	17	16	17	16	17	16
Total Grant	738	670	664	702	768	774	891	926
Surplus/(Shortfall)	12	8	36	(8)	1	(36)	(28)	(152)

## Notes:

<sup>1</sup> Estimated 1982 figures. Internal disputes during 1982 are estimated by the Board to have cost a total of £140 million, after allowing for the delayed pay settlement. This is nearly three times the estimated cost of internal disputes (in 1982 prices) over the whole of the preceding seven years.

<sup>2</sup> "SRA" means the Special Replacement Allowance introduced in 1978 for the replacement of rail passenger assets. "Additional depreciation" is charged to rail operating expenditure to balance this allowance.

<sup>3</sup> "PTE"---The 7 Passenger Transport Executives make payments to the Board under their agreements with BRB for the provision of local rail passenger services.

<sup>4</sup> The Secretary of State pays grant for up to half the cost of the provision, maintenance and operation of level crossings.

<sup>5</sup> These figures represent the cash limit for grant (PSO and SRA) announced by the Secretary of State on 8 November 1982 when he said that the cash limit had been increased to £837 million. At the same time the Board's external financing limit for 1982/83 was raised to £930 million.

1.11 In 1976, the then Secretary of State introduced a cash limit on the PSO grant, setting it in real terms at the level of grant paid in 1975. The aim since then has been that the grant provided to the passenger system (excluding the Special Replacement Allowance introduced in 1978) should not exceed in real terms that level. Table 1.3 illustrates the increasing difficulty the Board have found since 1979 in staying within the cash limit. (Paragraphs 1.18 and 1.19 explain why the cash limit for 1981 was increased and what happened in 1982.)

TABLE 1.3: PSO Grant (Including Special Replacement Allowance) and Cash Limit, 1976-1981

1982 Prices	1976 £m	1977 £m	1978 £m	1979 £m	1980 £m	Original 1981 £m	Revised
(a) Cash Limit	674	672	722	704	690	732	816
(b) Grant	602	589	625	688	691	809	
(c) Gap between (a) and (b)	72	83	97	16	(1)	(77)	7

1.12 The trend in passenger miles since 1975 and in revenue, costs and grant per passenger mile (at 1982 prices) is shown in the next table.

TABLE 1.4: Passenger Miles, Revenue, Costs and Grant per Passenger Mile, 1975-1982

1982 Prices	1975	1976	1977	1978	1979	1980	1981	1982 <sup>4</sup>
Passenger miles (millions)	18,800	17,700	18,200	19,100	19,900	19,700	19,100	17,300
Revenue (pence) per passenger mile <sup>1</sup>	5.2	5.7	5.8	5.9	5.7	5.8	5.8	5.3
Costs (pence) per passenger mile <sup>2</sup>	9.2	9.4	9.2	9.5	9.4	9.8	10.5	11.3
Grant (pence) per passenger mile <sup>3</sup>	3.9	3.8	3.6	3.7	3.9	3.9	4.7	5.4

## Notes:

<sup>1</sup> Excludes income from letting of operational property, commercial advertising, and train and station catering.

<sup>2</sup> Includes additional depreciation from 1978 but excludes interest.

<sup>3</sup> "Grant" includes PSO grant, Special Replacement Allowance, PTE payments and level crossing grants.

<sup>4</sup> Estimated 1982 figures.

## The Freight and Parcels Businesses

1.13 The policy of successive Transport Ministers since 1975 has been that, after a short transitional period, the rail freight and parcels businesses should be commercial. This aim has not been achieved.

1.14 Until this year, the Board have not allocated costs in a way that would permit us to show the financial results of the freight and parcels businesses separately. The results of the two businesses taken together, however, are shown in Table 1.5.

TABLE 1.5: Freight and Parcels Business Results, 1975-1982

1982 Prices	1975 £m	1976 £m	1977 £m	1978 £m	1979 £m	1980 £m	1981 £m	1982 <sup>1</sup> £m
Revenue	805	861	863	847	848	752	715	616
Costs	940	891	860	830	826	788	698	605
Profit/(Loss) before interest and grant	(135)	(30)	3	17	22	(36)	17	11
Interest	18	26	14	22	24	26	16	34
Grants:								
Level Crossings	2	2	2	2	1	2	2	2
Freight Transitional Grant	142	63	10	—	—	—	—	—
Net Profit/(Loss)	(9)	9	1	(3)	(1)	(60)	3	(21)

Note:

<sup>1</sup> Estimated 1982 figures.

1.15 Table 1.6 shows freight net tonne miles carried and revenue per net tonne mile since 1975.

TABLE 1.6: Freight Net Tonne Miles Carried and Revenue Per Net Tonne Mile, 1975-1982

1982 Prices	1975	1976	1977	1978	1979	1980	1981	1982 <sup>1</sup>
Net tonne miles (millions)	12,984	12,794	12,501	12,416	12,361	10,961	10,877	10,058
Revenue <sup>2</sup> per net tonne mile (pence)	4.3	4.8	5.0	5.0	4.9	4.9	5.0	4.8

Notes:

<sup>1</sup> Estimated 1982 figures.

<sup>2</sup> Excludes income from letting of operational property and commercial advertising.

## External Financing Requirements

1.16 Since 1976, in line with Government policy towards all public sector expenditure, the Secretary of State has set an "External Financing Limit" (EFL) on the amount of external finance available to the Board for all its activities (rail and non-rail). The EFL limits total grant and borrowing within the financial year (see Glossary). The Board's performance against the EFL is shown below:

TABLE 1.7: External Finance Requirement, 1976/7-1981/2

1982 Prices	1976/7 £m	1977/8 £m	1978/9 £m	1979/80 £m		1980/1 £m		1981/2 £m
				Original	Revised	Original	Revised	
External finance limit	920	946	919	843	822	887	933	978
External finance requirement	803	762	870	822		933		960
Headroom	117	184	49	21	Nil	(46)	Nil	18

Note: In 1979/80 and 1980/81 the limit was revised in the course of the year. The figures exclude pension funding grants.

1.17 To complete the setting of the scene, we show the financial results of the railway as a whole since 1975 and briefly describe the events leading up to the Secretary of State's decision (made with the agreement of the Board, who had been pressing for a joint review) to appoint us to conduct this review.

TABLE 1.8: Railway Financial Results, 1975-1982

1982 Prices	1975 £m	1976 £m	1977 £m	1978 £m	1979 £m	1980 £m	1981 £m	1982 <sup>2</sup> £m
Revenue: Passenger	1,031	1,045	1,090	1,154	1,149	1,167	1,126	927
Freight	604	664	667	654	661	585	586	522
Parcels	201	197	197	193	187	170	130	94
Total Revenue	1,836	1,906	1,954	2,001	1,997	1,919	1,841	1,543
Costs <sup>1</sup>	2,663	2,554	2,533	2,648	2,701	2,723	2,700	2,567
Railway Deficit before Grants and Interest	(827)	(648)	(579)	(647)	(704)	(804)	(859)	(1,024)
Interest	53	70	59	67	65	68	59	77
Grants (Passenger and Freight)	883	735	676	704	769	776	893	928
Railway Surplus/(Shortfall)	3	17	38	(10)	—	(96)	(25)	(173)

*Notes:*<sup>1</sup> Includes Additional Depreciation from 1978.<sup>2</sup> Estimated 1982 Prices.

1.18 The economic recession and the steel strike damaged the freight business in 1980. An expected operating profit of £17 million turned into an actual operating loss of £58 million. The recession affected the passenger business somewhat later. The Board's original grant claim for 1981 was £644 million (in 1981 prices). That was well within the cash limit. But it became clear to the Board during the first half of 1981 that the revenue of the passenger business was deteriorating seriously below that forecast in their original grant claim. The Secretary of State accepted that cost savings on the scale required could not be made quickly. In November 1981, therefore, he decided to accept the Board's revised grant claim of £754 million, an increase of £110 million. He made it clear to the Board, however, that he expected their claim for 1982 "to demonstrate that firm action has been taken on unit costs, which have been rising, and on service levels in the light of the change in demand".

1.19. In the event, the Board's claim for grant for 1982 was £885.2 million which, allowing for inflation, would have been some £60 million above the total grant provided in 1981. In March 1982, the Secretary of State decided to reject the Board's claim and to set the grant for 1982 at £804 million, slightly less than the 1981 adjusted level in real terms. (This amount was later increased to £837 million.) In March, he commissioned Mr P J Butler to examine and report to him on the Board's 1982 Budget. Then, in May, the Secretary of State appointed this Committee.

## PART I

# EXAMINATION OF THE FINANCES OF THE RAILWAY

## PREFACE

1. The first Part of our report examines the finances of the railway on the assumption that the size of the railway will remain broadly unchanged and operate within broadly the present framework of Government policies towards the railway.

2. Chapters 2-4 examine the rail businesses in turn—passenger, freight and parcels. The Board divide their rail activities in this way for management and marketing purposes. The division is reinforced by the PSO Direction, which applies only to the passenger system, and by the policy of successive Transport Ministers that rail freight and parcels should not be subsidised.

3. These conventional distinctions between the businesses should not, however, obscure the extent to which they are inter-related. For example:

- (a) At the end of 1981, the railway network comprised 10,831 route miles. Nearly three quarters (8,230 route miles) were used jointly by the freight and passenger businesses. Only 714 route miles were used exclusively for passenger traffic and 1,887 exclusively for freight.
- (b) The businesses use some other assets jointly—for instance some workshops and locomotives—and many parcels are carried on passenger trains and handled at passenger terminals.
- (c) Changes in the operating requirements of the passenger business can affect the operations of the freight business, and vice versa.
- (d) Changes in the level of one business can affect the financial results of the other businesses. For example, the withdrawal or reduction of a freight service is likely to increase the share of indirect costs allocated to the passenger business in the short-term, at least.

4. Chapter 5 comments on some aspects of the selling of the railway's services and the implications for the Board's revenues and costs.

5. Engineering expenditure (including associated manpower costs) accounts for about half the railway's total expenditure. We regard this as a particularly important area in our examination of the railway's finances. In Chapter 6 we give our views on the main opportunities identified by our consultants (TM) for improving efficiency and achieving cost savings in engineering. Chapter 7 considers the activities and organisation of British Rail Engineering Ltd (BREL). Chapter 8 deals with railway investment.

6. The railway's total staff costs represent about 60 per cent of its total expenditure. Chapter 9 deals with the management and manpower of the railway. It also discusses the information required for efficient management and the associated question of the way in which railway costs are allocated between businesses.

7. Our views on the relationship between the Board and the Department of Transport are set out in Chapter 10. In Chapter 11 we consider a particularly important influence on that relationship—the mechanisms for the payment of grant.

8. Where relevant, the Chapters refer to the Board's 1982 Rail Plan. It contains two levels of forecasts: an "opportunity level", which represents the performance to which management is committed and which is supported by action plans; and a "more cautious level" which is intended to represent the minimum level of achievement that the Board consider realistic. The first version of the 1982 Plan was completed at the end of August. It was re-run in October and made available to us on 1 November 1982.

9. We have major criticisms of the methodology used to prepare both versions of the Plan. We cannot, therefore, endorse either of them. In Chapter 12, which concludes Part I, we set out our criticisms of methodology of the 1982 Plan, our suggestions for the improvement of rail planning and our broad assessment of the likely prospects for the railway's finances, always on the assumption that the size of the network and level of services are not materially changed.

## CHAPTER 2

### THE PASSENGER BUSINESS

2.1 For business planning and marketing purposes, the Board divide their passenger business into three broad sectors:—

- Inter-City
- London and the South-East (L&SE)
- Provincial Services.

The importance of these sectoral divisions for management purposes has been increased by the appointment earlier this year of three passenger "sector directors" who will have bottom line responsibility for the financial results of their sectors. (We discuss the development of sector management in Chapter 9.) Some of the Secretary of State's policies and objectives for the passenger businesses are framed in terms of the sectors.

2.2 We examine each of the sectors in turn. There are, however, important interactions between the sectors. For example:

- (a) The services within any particular sector are not homogeneous. For instance, some Inter-City services are profitable while others are not; and the Provincial sector is a mix of sub-sectors, each with characteristics of its own.
- (b) Changes in the size of one sector, or in its level of services, can affect both the costs and the revenue of others.
- (c) Changes in the conventions for cost allocation (discussed in Chapter 9) can affect significantly the share of indirect costs allocated between passenger sectors and between them and the freight business.

2.3 Moreover, assessment of the past performance and the potential of the passenger sectors is complicated by the fact that, until this year, indirect costs were not allocated between sectors. Data are available, however, for the "contribution" each sector has made to the indirect costs of the passenger business. These are shown below. The "contribution" is the difference between the sector's revenue and its direct costs.

TABLE 2.1: Sector Contributions to Passenger Business Indirect Costs

1982 Prices	1975 £m	1976 £m	1977 £m	1978 £m	1979 £m	1980 £m	1981 £m
Inter-City Contribution	170	179	223	244	214	188	138
L & SE Contribution	81	86	122	143	119	124	116
Provincial Contribution <sup>1</sup>	(68)	(77)	(72)	(78)	(76)	(81)	(104)
Total Passenger Contribution	183	188	273	309	257	231	150
Total Passenger Indirect Costs	924	836	885	1,002	998	1,023	1,047
Shortfall between total contribution and total costs	741	648	612	693	741	792	897

Note:

- <sup>1</sup> The Provincial sector has made a negative contribution because its revenue has not covered its direct costs.

#### The Inter-City Sector

2.4 This sector provides fast, high-quality inter-urban services. But it does not include all the Board's inter-urban services. For example, the Edinburgh-Glasgow service connects two great cities but is included in the Provincial sector. Such anomalies pose difficulties for the formulation of consistent policies for all the Board's inter-urban passenger services.

2.5 The definition of the Inter-City sector has also changed several times over the last eight years. The London-Bournemouth service, for example, has been in and out of the sector more than once and is now classified as part of the L&SE sector; and London-Norwich used to be classified as Inter-City but it, too, is now part of L&SE. The absence of clarity and consistency about the composition of the Inter-City sector presents an additional difficulty for assessing the sector's past performance and judging its prospects.

2.6 Using the sector definition current in the year concerned, the next table shows Inter-City's carryings, revenue and direct costs since 1975.



TABLE 2.2: Inter-City Carryings, Revenue and Direct Costs, 1975-1981

	1975	1976	1977	1978	1979	1980	1981
Passenger miles—millions	7,800	7,800	8,400	9,000	9,400	9,200	9,000
Revenue (£m—1982 prices)	454	485	510	547	551	551	510
Revenue per passenger mile (pence—1982 prices)	5.8	6.2	6.1	6.1	5.9	6.0	5.7
Loaded train miles—millions	51.1	64.7	61.6	61.9	64.5	66.6	65.5
Load factors (%) <sup>1</sup>	37	34	37	40	37	38	36
Direct costs <sup>2</sup> (£m—1982 prices)	284	306	287	303	337	363	372
Direct costs per passenger mile (pence—1982 prices)	3.6	3.9	3.4	3.4	3.6	3.9	4.1
Surplus of revenue over direct costs (£m—1982 prices)	170	179	223	244	214	188	138

*Notes:*<sup>1</sup> Estimated load factors.<sup>2</sup> "Direct costs" include train and terminals costs and miscellaneous expenses.

2.7 As mentioned in paragraph 1.9, successive Transport Ministers since 1977 have stated it as their objective that Inter-City should not be subsidised. In 1980, as a step towards that objective, the Secretary of State set Inter-City an interim financial target of making a contribution towards indirect costs, after meeting its depreciation and certain other costs, of £178 million (1981 prices) in 1982. This was intended to be the equivalent of 21 per cent of total passenger indirect costs and was seen as a first step towards a contribution of 25 per cent, which was agreed by the Board and the Department to represent the sector's appropriate share. The sector will not achieve the interim target. Having made a contribution to indirect costs in 1981 of 7 per cent, it is likely just to fail to meet even its direct costs in 1982.

2.8 In June 1981, the Secretary of State asked the Board to prepare a new business plan for Inter-City showing how the sector could reach full commercial viability by 1985. Full commercial viability was redefined as earning a surplus, after meeting direct and indirect costs (including depreciation and amortisation on a current cost basis), equivalent to a 5 per cent discounted cash flow on certain defined capital assets.

2.9 In response, the Board produced their Inter-City Prospectus. This was submitted early in 1982 and showed Inter-City making a profit, before interest but after current cost depreciation, of £1 million (in 1982 prices) in 1985. But since then, the Board's views on the sector's prospects have changed radically. The 1982 Rail Plan (October Revision) shows Inter-City making a deficit in 1985 of £111 million at the "opportunity level". Table 2.3 compares the forecasts in the Inter-City Prospectus (adjusted to put them on the same basis as the Plan) and in the 1982 Rail Plan.

TABLE 2.3: Inter-City: Comparison of Inter-City Prospectus<sup>1</sup> (January 1982) and 1982 Rail Plan (October Revision—"Opportunity Level")

1982 Prices	1982 £m	1983 £m	1984 £m	1985 £m
<i>Revenue</i>				
(a) Prospectus <sup>1</sup>	410	446	473	496
(b) 1982 Rail Plan	337	410	438	439
<i>Costs<sup>2</sup></i>				
(a) Prospectus <sup>1</sup>	548	545	526	513
(b) 1982 Rail Plan	568	577	547	550
<i>Deficit</i>				
(a) Prospectus <sup>1</sup>	(138)	(99)	(53)	(17)
(b) 1982 Rail Plan	(231)	(167)	(109)	(111)

*Note:*

<sup>1</sup> The Prospectus forecasts have been adjusted to put them on the same basis as the Plan. Interest costs have been included and the amounts allowed for depreciation have been changed from current cost to historic cost plus additional depreciation.

<sup>2</sup> Costs include interest.

2.10 The Board advance two main reasons for the difference between these forecasts. The 1982 Rail Plan (October Revision) includes a more pessimistic assessment of revenue prospects; and it also includes an increased allocation to Inter-City of indirect costs as a result of a more detailed application of the prime user conventions (discussed in Chapter 9).

2.11 As we have indicated in the Preface to Part I, we cannot endorse the forecasts included in the October Revision of the 1982 Rail Plan. We note, however, that:

- (a) in the space of less than 10 months, the Board's view of Inter-City's financial prospects in 1985 has changed by over £90 million;
- (b) on the Board's forecasts, there would be no prospect of the sector achieving by 1985 the financial target of commercial viability (as re-defined by the Secretary of State).

2.12 In our view, there is scope to reduce the costs of the railway, including the Inter-City sector, by a variety of measures, including the reduction of service frequencies, administration savings and reductions in engineering expenditure. In particular, we consider that Inter-City's cost in 1986 could be reduced by up to £39 million on the basis described in Chapter 12 and subject to the qualifications stated there, compared with the forecast at the opportunity level of the 1982 Rail Plan (October Revision). It will require determined and consistent effort by the Board to achieve these savings. Equal determination and a continued high level of selling will be needed to retain market share and secure the level of revenue forecast in the Plan. We consider that cost reduction offers greater potential than revenue growth for improving the sector's financial results.

2.13 Even if these savings were achieved, we judge that Inter-City would not meet in 1985 the financial target of commercial viability stipulated by the Secretary of State (see paragraph 2.8). We perceive, therefore, two main possibilities:

- (a) *Progressive Closure*—the services with the worst operating results would be withdrawn on a progressive basis until what remained was capable of achieving long-term commercial viability.
- (b) *Grant-aid the Sector*—the Secretary of State would set the sector the financial objective of covering a specified and increasing proportion of its costs, meeting the residue from grant. Objectives related to fares and quality of service would also be set along the lines suggested in paragraphs 2.25 and 2.26. In setting these objectives, the Secretary of State might include within the sector all inter-urban rail services, so dealing with the present anomalies in the definitions of the sectors.

The first of these possibilities would be in accord with the policy that inter-urban passenger transport should not be subsidised. But it would entail the withdrawal of services which carry many more people and which cover a far higher proportion of their costs than many of the services in the L&SE and Provincial Services sectors. Moreover, this possibility would involve treating one set of inter-urban services (ie those classified for management and marketing purposes as Inter-City) differently from inter-urban services included in the other sectors. The second possibility would entail accepting Inter-City as part of the grant-aided passenger system and would be contrary, therefore, to the policies of successive Transport Ministers since 1977.

2.14 One intermediate possibility between these two extremes might be to retain the current objective of "commercial viability" but to express "viability" in less demanding terms. Another would be to redefine the Inter-City sector so that it contained only those services that would enable commercial viability to be achieved. The services removed from Inter-City would be reallocated between the L&SE and Provincial sectors. We do not commend either of these expedients.

### **The London and South East Sector**

2.15 About 50 per cent of all rail passenger journeys (almost 40 per cent of passenger miles) are made in London and the South East. The sector provides transport for over 1 million passengers a day, Monday to Friday. Over 250,000 people move through the central London termini between 8.15 and 9.15 in the morning during the working week. The area covered by the sector includes 2,000 route miles, serving a population of about 17 million. It includes the whole of BRB's Southern Region and parts of the Eastern, London Midland and Western Regions.

2.16 Commuters represent about 60 per cent of the sector's passengers. The demands their movement makes during the peak hours are the main determinant of the size and complexity of L&SE's track and signalling, and of the size of its manpower and rolling stock fleet. Outside the peak periods, resources are under-utilised.

2.17 Key statistics on the L&SE sector's performance since 1975 are as follows:

TABLE 2.4: London & South East Carrying, Revenue and Direct Costs, 1975-1981

	1975	1976	1977	1978	1979	1980	1981
Passenger miles—millions	8,300	7,300	7,300	7,600	7,700	7,700	7,500
Revenue (£m—1982 prices)	401	396	417	443	441	449	457
Revenue per passenger mile (pence—1982 prices)	4.8	5.4	5.7	5.7	5.7	5.8	6.1
Loaded train miles—millions	79.7	70.1	74.5	77.6	74.0	78.3	75.4
Load factors (%) <sup>2</sup>	24	24	22	22	24	22	21
Direct costs <sup>3</sup> (£m—1982 prices)	320	310	295	300	322	325	341
Direct costs per passenger mile (pence—1982 prices)	3.9	4.2	4.0	4.0	4.2	4.2	4.6
Surplus of revenue over direct costs (£m—1982 prices)	81	86	122	143	119	124	116

Notes:

<sup>1</sup> The services included in L & SE have changed from time to time, notably in 1976.

<sup>2</sup> Estimated load factors.

<sup>3</sup> "Direct costs" includes train and terminals costs and miscellaneous expenses.

2.18 About half L&SE's revenue comes from season ticket sales. Season tickets are currently priced on the basis of a discount on the full fare. Because of these discounts some commuters are paying less than off-peak travellers. We doubt the economic justification for the size of the present season ticket discount. In our view, it warrants thorough examination, the results of which could benefit the revenue of the sector.

2.19 In 1980, the Monopolies and Mergers Commission examined the L&SE sector. Their report (Cmnd 8046) was published in October 1980. Since our review follows so soon after the Commission's enquiry, we have not sought to replicate their detailed examination of the sector. The implementation of the Commission's recommendations would increase the sector's efficiency and improve both its financial results and the service it gives the public.

2.20 Action already taken or included in the Board's 1982 Rail Plan (October Revision) reflects some of the recommendations. The Plan's "opportunity level" forecasts for L&SE are as follows:

TABLE 2.5: L&SE Forecast, 1982 Rail Plan (October Revision—"Opportunity Level")

1982 Prices	1982 £m	1983 £m	1984 £m	1985 £m	1986 £m
Revenue	434	504	525	528	534
Costs	763	767	789	808	801
Operating Loss	(329)	(263)	(264)	(280)	(267)
Ancillary Income	6	13	15	15	16
Interest	19	35	27	27	27
L & SE Deficit before Grant	(342)	(285)	(276)	(292)	(278)

2.21 For the reasons given in the Preface, we shall not comment in detail on the validity of these forecasts. Our own broad judgment of the sector's likely financial prospects is as follows.

2.22 On the revenue side, there is little prospect of growth in commuter traffic. However, there may be potential for increasing revenue as a result of the review of the season ticket discount (suggested in paragraph 2.18) or from better prevention of fraud (discussed in Chapter 5). There is also the option of a substantial real increase in L&SE fares generally. This is the only sector of the passenger business where such an increase would be likely to improve the financial results significantly within the next few years.

2.23 There is also scope for significant cost savings. In Chapter 12 we draw together many of our comments on these possibilities to indicate, on the assumptions and with the qualifications set out there, our broad judgement that the L&SE sector's costs could be reduced by up to £55 million in 1986, compared with the forecast at the opportunity level of the 1982 Rail Plan (October Revision).

2.24 The Monopolies and Mergers Commission, in their 1980 report on the L&SE sector, observed that:

"The problem of the interrelation of service, costs and charges cannot be tackled satisfactorily unless the business is being conducted with a clear objective. The 1974 [PSO] direction, however useful it may have been in the past, is no longer adequate for this purpose. We found uncertainty both at

the Headquarters of the Board and in the Regions about the extent of the limitation which it places on management's discretion. Such uncertainty may easily lead to inaction. It is urgently necessary that the Government should redefine the objective which the Board are expected to achieve in operating the social railway in L&SE" (paragraph 13.8, Cmnd 8046).

We share the Commission's view.

2.25 In November 1981, after considering suggestions put forward by the Board, the Secretary of State published draft objectives for L&SE as a basis for comment by interested parties. These draft objectives were related to:

- (a) the level of Government financial support for the sector;
- (b) fares;
- (c) quality of service.

2.26 Our conclusions on objectives for L&SE are:

- (a) objectives of the kind issued in draft by the Secretary of State are required and would be appropriate;
- (b) the objectives should be published and revised at regular intervals;
- (c) consideration should be given to the possibility of using the local Transport Users' Consultative Committee to provide the Secretary of State with an annual assessment of the way in which the achievement of these objectives was affecting passengers, and of possibilities for mitigating any hardship to passengers within the sector's financial target;
- (d) the Board should set its managers a range of detailed management objectives, consistent with the broader objectives specified by the Secretary of State.

### The Provincial Sector

2.27 "The Provincial Sector" is no more than a label for all the passenger services not classified as either Inter-City or L&SE. It includes at least five types of service or "sub-sectors", each with some characteristics peculiar to it. These five types are:

- (a) *city regional services*—these are the services provided in the conurbations outside L&SE (ie in the Strathclyde Region, the six English metropolitan counties, and in the Cardiff Valley area);
- (b) *cross-country services*—most of these provide inter-urban links outside London (eg Glasgow-Edinburgh, Liverpool-York). Although they link cities, they are not included in the Inter-City sector;
- (c) *long branch lines*, mainly in Scotland and Wales, in excess of 50 miles long, which constitute links for small communities;
- (d) *short branch lines* of up to about 50 miles long—many link rural areas to towns and cities; some are feeders to the Inter-city and L&SE services;
- (e) *stopping services on main lines*—most of these serve a similar purpose to short branch lines but follow Inter-City routes and often use Inter-City tracks.

Services of the first two types between them generate nearly three-quarters of the Provincial sector's revenue.

2.28 The Provincial sector as a whole is treated, for cost-allocation purposes, as the "prime user" of over half the route mileage of the passenger system. Yet its revenue contributes less than a sixth of the total income of the passenger business from fares. In 1981 the sector accounted for about 28 per cent of total passenger journeys and 14 per cent of total passenger miles. The sector's average load factor is only 20 per cent. Few services cover even their direct train and terminals costs from revenue, and several services involve costs many times as large as the revenue that they generate. For example, the revenue of the Leamington Spa Stratford-upon-Avon service in 1981 was £76,000; its direct costs alone were £425,000 (1981 prices). Table 2.6 illustrates the Provincial sector's performance (including services supported by Passenger Transport Executives) since 1975.

TABLE 2.6: Provincial Sector Carriage, Revenue and Direct Costs, 1975-1981

	1975	1976	1977	1978	1979	1980	1981
Passenger miles—millions	2,700	2,600	2,500	2,500	2,800	2,800	2,600
Revenue (£m—1982 prices)	127	134	134	135	142	143	138
Revenue per passenger mile (pence—1982 prices)	4.7	5.2	5.4	5.4	5.1	5.1	5.3
Loaded train miles—millions	54.9	54.7	57.0	56.6	57.4	58.4	59.5
Load factors (%) <sup>1</sup>	22	21	20	20	22	21	19
Direct costs (£m—1982 prices) <sup>2</sup>	195	211	206	213	218	224	242
Direct costs per passenger mile (pence—1982 prices)	7.2	8.1	8.2	8.5	7.8	8.0	9.3
Shortfall of revenue compared to direct costs (£m—1982 prices)	(68)	(77)	(72)	(78)	(76)	(81)	(104)

Notes:

<sup>1</sup> Estimated load factors.

<sup>2</sup> "Direct costs" includes train and terminals cost and miscellaneous expenses.

2.29 The Board estimate that the deficit of the Provincial sector will represent about half the total deficit of the passenger business in 1982. Table 2.7 shows the "opportunity level" forecasts from the 1982 Rail Plan (October revision).

TABLE 2.7: Provincial Sector Forecast, 1982 Rail Plan (October Revision—  
"Opportunity Level") including PTE-Supported Services

1982 Prices	1982 £m	1983 £m	1984 £m	1985 £m	1986 £m
Revenue	141	162	166	166	167
Costs	624	626	644	671	675
Operating Loss	(483)	(464)	(478)	(505)	(508)
Ancillary Income	4	8	9	9	10
Interest	10	11	14	14	14
Provincial Sector Deficit before Grant	(489)	(467)	(483)	(510)	(512)

2.30 We can see little scope for increasing the revenue of the Provincial services (outside the areas of the PTEs). But there are opportunities for reducing the costs of the railway substantially. We estimate that, if achieved, these savings could improve the Provincial sector's costs by £75 million in 1986 compared with those shown in Table 2.7, on the assumptions and subject to the qualifications set out in Chapter 12.

2.31 But, even with the benefits of these savings and of radio signalling and cheaper rolling stock, this sector will, in our opinion, continue to require financial support of about £450 million a year for the foreseeable future unless there are substantial changes in its size and level of service.

2.32 The Department has not so far devised specific objectives for the Provincial sector. The Board are merely required to provide a service "generally comparable" with that provided in 1974. We consider that the Monopolies and Mergers Commission's comment on the inadequacy of the 1974 Direction as an objective for L&SE (quoted in 2.24 above) would apply with even greater force to the Provincial sector.

2.33 In our view, many of the Provincial services represent very poor value for the public money they are receiving. Local transport requirements could, in most cases, be met at far lower cost to the taxpayer by other means. For example, guaranteed and subsidised bus services could be provided as a substitute for many of these rail services at a major saving to the public purse. We discuss this possibility in Part II.

2.34 We have considered what Government objectives might be appropriate for this sector if it remains at broadly its present size or if substantial parts of it are to continue. We have concluded that:

- (a) financial and other objectives of the kind currently being developed by the Secretary of State for the L & SE system (on which we commented in paragraph 2.26) would be appropriate and desirable;
- (b) consideration should be given to the possibility of using the local Transport Users' Consultative Committees to provide the Secretary of State with an annual assessment of the way the achievement of these objectives was affecting passengers and of possibilities for mitigating any local hardship within the sector's financial target.

It would be for the Board to elaborate the objectives set by the Secretary of State so as to provide detailed targets for sector management and measures for assessing their performance.

#### **PTE Supported Passenger Services**

2.35 The services in the areas of the Passenger Transport Authorities are covered by the current PSO Direction and are included in the Provincial sector. But they require separate discussion because it is the PTAs, not the Secretary of State, who decide the quality of service, fares and frequency of the local rail services they support.

2.36 The Transport Act 1968 provided for the creation of Passenger Transport Authorities (PTAs—broadly responsible for determining policies) and Passenger Transport Executives (PTEs—responsible for implementing the policies). The aim was to improve the co-ordination of public passenger transport of all kinds, including rail services, in major urban areas. Section 20 of the Act sets out the duties of PTEs for rail services. It requires them to review the railway passenger services in their areas and to enter into such agreements with the Board as their PTAs approve for the provision of rail passenger services to meet local needs.

2.37 The method of calculating PTE payments rests on two basic conventions:

- (a) The main passenger system exists primarily for national purposes. So where PTEs require services that share track with non-PTE passenger services, they pay only the avoidable cost of the PTE services' use of these facilities;
- (b) the size, shape and costs of the railway infrastructure are largely determined by the requirements of passenger operations, and so where PTEs require services that share track only with freight services they pay the whole cost, less the avoidable costs attributable to freight.

In addition, PTEs are charged with the direct costs of the services they support and with their avoidable costs of administration and general expenses. The revenues of the services are set off against their costs to arrive at the payment due to the Board. (Table 1.2 shows the payments made by PTEs to the Board since 1975.)

2.38 Many PTE services are provided by Diesel Multiple Units (DMUs) which were designed for a life of 15–20 years. Most of these units are now over 20 years old. Over the next 10–20 years, there will be heavy costs of replacement or refurbishment. The PTEs are seriously concerned about the implications of the renewal of this rolling stock for the level of their payments to the Board. We understand, however, that the Secretary of State—in recognition of the problem—has already undertaken to take account of the increased section 20 payments resulting from reasonable replacement programmes when determining the metropolitan counties' Transport Supplementary Grant (TSG) allocations. The Association of Metropolitan Authorities (AMA) have suggested that capital grants should be given to PTEs for new DMUs. We do not think that this would be appropriate; in our view, the cost of vehicles required by the PTEs should be dealt with in the calculation of TSG.

2.39 The PTEs are also critical of the present method of calculating their payments to the Board. They would prefer to be charged only the avoidable costs of the services they support. We consider, however, that this could distort decisions on the allocation of local resources between the modes available for meeting local public transport requirements.

2.40 Finally, the PTAs and their PTEs are concerned about the effects of the Government's policies on the control of local government expenditure in general and expenditure on public transport in particular. These constraints may induce PTAs to switch support away from local rail services in order to maintain local bus services. If that were to happen, the losses of the rail services would have to be met from the PSO grant. If the Board found difficulty in meeting the losses from within the existing level of grant, and the Secretary of State were unwilling to increase the grant, closure would need to be considered.

#### **Local Government Support for Rail Passenger Services Outside PTA Areas**

2.41 The role of rail commuter services in London and the South East is of a different order of importance from that elsewhere. Special considerations apply, therefore, to the arrangements for the planning and support of services in L&SE. The inter-actions between the Board's services and those of other public transport operators, such as the London Transport Executive, are also relevant. We have not, however, examined the matter in detail because that would have been to duplicate the enquiry, completed soon after we began our review, by the House of Commons Select Committee on Transport (see "Transport in London", Fifth Report from the Transport Committee, Session 1981–82).

2.42 We have considered whether it would be desirable to transfer to non-metropolitan counties in England and Wales and to all Scottish Regional Councils the responsibility for supporting rail passenger services in their areas.

2.43 The Association of County Councils (ACC) would be strongly opposed to such a transfer of responsibility. They consider that rail services have at least a regional dimension with few catering solely for local (ie county) needs.

2.44 Few services serve a single county. Most run through two or three. So there could be problems for county councils in reaching agreement between themselves on what value to attach to the portion of the service running through their areas and how much support to provide for it. Moreover, the Board would have to make agreements with a multiplicity of authorities, each with its own local transport policies. This would increase the Board's problems in planning services and investment, and increase administration costs. And unless a common fares policy were adopted, the passenger would be subjected to a variety of tariff policies for journeys of the same length and quality depending on where he wanted to travel.

2.45 We conclude, therefore, that the balance of advantage lies in the Government retaining primary responsibility for setting the objectives, and providing financial support, for the passenger rail services outside the PTE areas.

## CHAPTER 3

### THE FREIGHT BUSINESS

3.1 The railway's share of the market for inland freight transport has been in decline throughout this century—a reflection both of the development of road haulage and changes in Britain's industrial base. In recent years, the railway's share has continued to fall—from 21 per cent in 1970 to 14 per cent in 1981. Rail freight carryings have declined in absolute terms also. In 1981, for instance, the railway carried 154 million tonnes, against 209 million tonnes in 1970.

3.2 Nevertheless, the freight business provides about one-third of the railway's total revenue before grants. The railway can also provide a useful contribution to defence as the preparations for the Falklands Task Force recently demonstrated. And it remains particularly well suited to the transport of regular large flows of bulk commodities. Over 90 per cent of rail freight's revenue now comes from this traffic, most of which is carried in trainloads. The Board, finding that road hauliers had a competitive advantage in the carriage of traditional wagonloads, decided in 1979 to withdraw from the wagonload business. Withdrawal is due to be complete by 1983/84. Table 3.1 shows the extent of the change in the method of rail freight movement since 1970.

TABLE 3.1: Changes in Method of Rail Freight Movement, 1970–1981

<i>Method</i>	<i>1970 million tonnes</i>	<i>1974 million tonnes</i>	<i>1979 million tonnes</i>	<i>1981 million tonnes</i>
Trainload	106	133	145	137
Wagonload	93	43	24	17

#### Rail's Prospects in the Bulk Market

3.3 Four commodity groups account for over 90 per cent of rail freight carryings (by weight). The breakdown between them is as follows:

TABLE 3.2: Rail Freight Carryings by Commodity in 1981

<i>Commodity</i>	<i>Million Tonnes</i>	<i>% share of total rail freight (by weight</i>	<i>Tonne miles<sup>1</sup></i>	<i>% share of total rail freight by tonne miles</i>	<i>Revenue<sup>2</sup> £m 1981 Prices</i>
Coal & Coke	95	62	3,929	34	
Iron & Steel	18	12	1,366	12	
Petroleum/chemicals	16	10	1,960	17	
Aggregates/building materials	16	10	1,485	13	
Other	9	6	2,690	24	

Note:

<sup>1</sup> Estimated tonne miles.

<sup>2</sup> Figures omitted from published report at the Board's request for commercial reasons.

3.4 Table 3.3 shows the trend in the carryings of the four main bulk commodities since 1970.

TABLE 3.3: Rail Freight Carryings of Coal & Coke, Iron and Steel, Petroleum/Chemicals and Aggregates/Building Materials

<i>Commodity</i>	<i>1970 million tonnes</i>	<i>1974 million tonnes</i>	<i>1979 million tonnes</i>	<i>1981 million tonnes</i>
Coal & Coke	114	88	94	95
Iron & Steel	40	31	25	18
Petroleum/chemicals	23	23	21	16
Aggregates/ building materials	18	22	19	16



**3.5 Coal and Coke:** the supply of the Central Electricity Generating Board's (CEGB) power stations accounts for two-thirds of rail's coal business. Almost all of this coal is moved by "merry-go-round" operations. The current CEGB contract is about mid-way through its 15 year term. Since the CEGB is heavily committed to rail transport through its large investments in terminal facilities, it is unlikely that anything more than marginal traffic will transfer to road. On the other hand, since almost all CEGB coal currently travels by rail, there is little scope for BRB to increase the volume of business. The prospects for the Board in this market sector, therefore, are almost entirely dependent on the volume of coal the CEGB will require in future.

**3.6** The demand for coking coal comes from the British Steel Corporation (BSC) and other heavy industries. The Board's prospects of developing more business in this market, which is already heavily served by rail, appear slight.

**3.7** The domestic coal market represents only about 3 per cent of rail's total coal carryings, and the Board foresee a continuing decline in it over the next few years as electricity and gas continue their growth as the main household fuels. The railway's share of this market is also highly vulnerable to road competition.

**3.8 Iron and Steel:** this traffic falls into three broad categories—raw materials (ores, limestone and scrap); semi-finished materials; and finished products. BSC accounts for the vast majority of the railway's iron and steel traffic, most of which moves in trainload quantities. Steel stockholders account for the remainder of the business which is delivered almost entirely in less than trainload amounts. The railway's share of the raw and semi-finished materials markets is around 80 to 90 per cent. Its share of end products is about 20 per cent. Much of the end product movement is over short distances within regions.

**3.9** The Board see three promising areas for improving rail carryings;

- (a) to attract new flows from BSC. Concentration of production at larger units, and the closure of smaller plants, may result in longer hauls for BRB;
- (b) to capture some of road's present share of business to stockholders;
- (c) to carry cold-reduced coil (used in the manufacture of consumer durables, automobiles etc). Virtually all of this traffic goes by road at present.

In the last two areas, success will depend largely on the Board providing a reliable "Speedlink" service (see paragraphs 3.13–3.19) and developing adequate terminal offloading/storage facilities.

**3.10** There seems little prospect of growth in steel demand in the next few years. Insofar as new large volume inter-works movements following BSC's rationalisation are concerned, the railway is in a highly advantageous position to secure additional business. But to secure new business in finished products will require a major marketing effort by the Board in the face of severe road competition.

**3.11 Petroleum:** the Board consider that their main opportunities for increasing their share of the market for the carriage of bulk petroleum products lie in competing with coastal shipping rather than with pipelines or road haulage.

**3.12 Aggregates and Building Materials:** the Board think there is likely to be significant growth in the movement of aggregates in the South East. The large volumes and long distances involved give rail movement a potential advantage over road transport. The Board also believe there are opportunities to increase rail carriage of limestone for the chemical, cement and other industries.

## **Speedlink**

**3.13** In paragraph 3.2, we referred to the Board's decision to withdraw completely from their traditional wagonload activities by 1984. But this does not mean that the Board intend to provide only trainload movements of bulk commodities. They are developing "Speedlink" as a means of expanding the rail freight business by winning selected traffics which lend themselves to wagonload or less than trainload quantities, and where the volume, regularity and distance (generally above 150 miles) permit an economic haul. The old wagonload traffic served a combination of low revenue markets, including bulk traffic normally carried in trainloads. But the new Speedlink service is specifically directed to competition with the trucking market. It carries goods in reserved places on timetabled services, whereas wagonload services might have taken a week or ten days to arrive.

**3.14** The aim of Speedlink, operating with new air-braked wagons on main-line routes, is to provide a fast and regular service for general merchandise. It already runs on 13 trunk routes between the main conurbations and industrial centres, operating over 80 scheduled services a day. The main terminals on the trunk network are linked to other terminals by feeder services moving pre-formed train sections. Over 400 private sidings are currently in use, together with some 130 public depots owned by the Board, and

about 70 privately-owned railhead terminals associated with collection or delivery by road. Many Speedlink wagons are privately owned.

3.15 About 3.5 million tonnes of freight (about 2 per cent of the Board's total tonnage) were carried on Speedlink in 1981. About a third of this was iron, steel and aluminium and a further third was international traffic. The 1982 Rail Plan (October Revision, "Opportunity Level") forecasts that business will grow to 9.8 million tonnes by 1986.

3.16 The Board have identified a number of products which they consider may offer potential for Speedlink. Some have already been won, others are undergoing test marketing, while others have yet to be researched. These commodities include: aluminium products, lubricating oils, specialised minerals, timber, chipboard, animal feedstuff, beers, spirits, wines and soft drinks, glass and plastic bottles/containers and cans, paper tissue, sugar, grain, coal and cement.

3.17 The Board see Speedlink as part of a "total distribution package" rather than a siding-to-siding rail service in the traditional manner. Customers are, therefore, to be offered a comprehensive distribution service (ie door-to-door), with road collections and deliveries where necessary, and break-bulk and warehousing facilities, in addition to the rail trunk haul. As the Board can operate only siding-to-siding, they are intending:

- (a) to enter into partnerships with road hauliers and terminal operators (the development of privately-owned railhead distribution terminals is an important part of the marketing plan); and
- (b) to encourage the development of customers' private sidings, to eliminate inter-modal transfers. (Under section 8 of the 1974 Railways Act, Government grants are available to companies for the provision of rail facilities (including sidings, terminal handling equipment and wagons) if there are environmental benefits.)

3.18 The Board believe there is a large potential market for Speedlink. They estimate that about 40 million tonnes (of the 300 million tonnes of manufactured goods that are moved annually in the UK for distances over 100 kilometres) could be suitable for Speedlink, as compared with the 3.5 million tonnes carried in 1981. Their approach is, however, to develop Speedlink gradually so as to avoid introducing services that turn out to be unsuitable for the market. New business opportunities are, therefore, to undergo three development stages: market research, test marketing, and growth.

3.19 We have given special attention to Speedlink since the project represents an imaginative and considered attempt by the Board to reverse the trend in the general decline of this area of the freight business. We have been impressed by their approach to the project. On the other hand:

- Speedlink's success will be affected by the willingness of the private sector to invest in railway facilities (eg wagons, private sidings); and
- competition from road hauliers will remain fierce during the crucial period when Speedlink must establish its reputation and win new customers.

We are not confident, therefore, of the Board's ability virtually to treble Speedlink's traffic by 1986, as forecast in the 1982 Rail Plan. We consider that it would be unwise for them to commit resources to developing the service on the scale forecast in the Plan unless there is reasonable certainty that the traffic will be won, will remain and will be profitable.

#### **Freightliners Ltd**

3.20 Freightliners Ltd has been one of the Board's wholly-owned subsidiaries since 1978, specialising in container traffic, carried by road and rail. Freightliners' payments to the Board for its use of rail services are currently contributing about 5 per cent of the rail freight business' revenue.

#### **Assessment of Rail Freight's Business Opportunities**

3.21 Our views on rail freight's business opportunities can be summarised as follows:

- (a) The Board's freight business will remain very heavily dependent on the movement of the traditional bulk commodities. Its fortunes, therefore, will turn largely on those of its main customers. The Board's aim should be to ensure that they retain their existing share of the bulk market on profitable terms;
- (b) The potential exists for the railway to increase its market share for the carriage of some products (eg grain, refuse, timber, cold-reduced coil, drinks). Much of this new traffic would be carried by Speedlink. We believe that Speedlink has potential for growth, but we doubt whether it can treble its carryings by 1986, as the Board forecast. Caution will be required, therefore, to protect the Board from over-exposure of their finances to the development of Speedlink.

#### **The Financial Prospects of the Rail Freight Business**

3.22 Successive Governments' policies have been that rail freight should not be subsidised from public funds. That aim was built into the Transport Acts of 1962 and 1968 and into the Railways Act 1974.

3.23 In March 1980, the Secretary of State and the Board reached agreement on an interim financial target for the freight business, under which it was to cover, in 1982, two-thirds of its current cost depreciation and amortisation after meeting in full its direct expenses of operating trains and terminals and its agreed contribution to indirect expenses. It soon became clear, however, that this target would not be achieved. The economic recession hit the freight business hard. Actual carryings in 1980 were 14 per cent down on those forecast when the Board's 1980 Budget was produced at the end of 1979.

3.24 In June 1981, the Secretary of State asked the Board to prepare a new business plan for moving the business to "fully commercial" performance by the mid-1980s. Fully commercial performance was defined as achieving a surplus sufficient to earn the required return on certain specified capital assets after covering all direct operating expenses, including current cost depreciation, and a proportion of indirect costs as determined under the PSO grant rules (described in Chapter 9). In response, at the beginning of 1982, the Board produced their Freight Business Prospectus. But that, too, has been overtaken by events.

3.25 The most recent forecast of the freight business is contained in the Board's 1982 Rail Plan (October Revision). Table 3.4 shows that the Board do not expect the business to break even until 1986.

TABLE 3.4: Freight Business Forecast, 1982 Rail Plan (October Revision—"Opportunity Level")

1982 Prices	1982 £m	1983 £m	1984 £m	1985 £m	1986 £m
Revenue	490	489	496	503	513
Costs	520	517	492	490	487
Operating Profit/(Loss)	(30)	(28)	4	13	26
Ancillary Income	31	13	12	12	14
Interest	35	23	34	33	33
Profit/(Loss)	(34)	(38)	(18)	(8)	7

For the reasons given in the Preface, we do not comment on these forecasts in detail.

3.26 We asked the Treasury for its estimates of the likely trends in the growth of Gross Domestic Product up to the year 2000. The Treasury outlined two possible scenarios—one for higher and one for lower growth. The trend figures given to us in June 1982 were 0.75 per cent per annum on the lower growth scenario and 2.5 per cent per annum on the higher growth scenario in the period up to 1985; the comparable figures for the period 1985–2000 were 0.5 per cent and 2.5 per cent. In the light of this advice, the introduction of heavier lorries, the risks to the development of Speedlink and to coal and steel carryings, we consider that caution is required about rail freight's revenue prospects. They could be significantly less in 1986 than the opportunity level forecast in the October Revision of the 1982 Plan.

3.27 On the other hand, we see substantial scope for further action to reduce costs and achieve economies. These possibilities are discussed in Chapter 12 in relation to 1986. If the Board succeed in achieving them—and we recognise that this will not be easy—we estimate that, on the assumptions and with the qualifications set out in Chapter 12, the costs of the freight sector could be up to £45 million less in 1986 than forecast in the opportunity level of the 1982 Rail Plan (October Revision).

3.28 The financial results of the freight business will be worsened, however, when the "16 track categorisation system" is introduced in 1984. (The system is discussed in Chapter 9; very briefly, it will be used to allocate track maintenance costs more specifically by reference to traffic that uses the track, in line with the maintenance standards already in operation.) The introduction of the new track categorisation system will increase the costs allocated to the freight business; our consultants (TM) estimate that this could worsen the financial results of the business by £30–35 million a year from 1984. In the meantime, as in the past, the freight business is not being charged its full costs of wear and tear, with adverse effects on the financial results of the passenger business.

3.29 Our judgment on the financial prospects of the business is subject to the following important qualifications:

- (a) A sustained and resolute effort will be required to achieve the cost-savings.
- (b) The freight sector's revenues will be highly vulnerable to any adverse trends in the fortunes of its customers in the bulk market.
- (c) The Board should be ready to withdraw promptly (where possible under the terms of contracts) from traffics which prove unprofitable or which are unlikely to become and remain profitable within a reasonably short period.

Subject to these qualifications, we think there is a reasonable prospect of the freight business breaking even by the mid-1980s. But we doubt whether it will be able to achieve the performance envisaged by the Secretary of State in June 1981 (see paragraph 3.24).

## CHAPTER 4

### THE PARCELS BUSINESS

4.1 The parcels business contributed about 7 per cent of the railway's total revenue before grant in 1981. It is heavily dependent on three main traffics:

- (a) the Post Office letters and parcels contracts, which together produce about 40 per cent of the revenue of the sector;
- (b) premium parcels traffic (mainly "Red Star"), producing about 25 per cent of the sector's revenue;
- (c) the carriage of newspapers and periodicals, producing about another 25 per cent of the sector's revenue.

#### The Post Office Contract

4.2 At present, the railway's share of Post Office business is about 70 per cent for letter mail and 45 per cent for parcels. The railway's carryings of letter mails (by tonnage) fell by almost a quarter between 1971 and 1981; and the rail tonnage of Post Office parcels declined by nearly two-thirds. The main reasons appear to have been:

- (a) The concentration of Post Office sorting offices over the past decade into many fewer, but larger, regional centres has made direct road movement more economic than rail due to the elimination of double handling. This has had a particularly significant effect on parcels traffic where the original 1,600 sorting centres have been replaced by only 30.
- (b) Increased competition from air services for longer-distance traffic.
- (c) The fact that modern passenger trains have less accommodation for mail and make shorter stopping times at stations. This is in the interests of passengers but is to the detriment of Post Office business.

4.3 The Board have two contracts with the Post Office, one for letter mail and one for parcels. The letter mail contract was originally established in 1930 and is for a fixed price (revised annually to reflect inflation) for an unlimited amount of mail. The price is not related to volume, distance or route. The parcel post contract, on the other hand, is based on specified prices per bag for individual flows.

4.4 The letter mail contract is currently under re-negotiation between the Board and the Post Office. The latter maintain that the Board's charges are too high. The Board would like to set prices for individual flows at market rates (ie the cost of alternative means of transportation). Since the negotiations are still in progress, it is difficult to estimate the future magnitude of the letter traffic. We endorse the Board's objective of ensuring that the business they retain is secured at commercial rates and shows an acceptable profit.

4.5 The Post Office parcels traffic is covered by a five-year contract, now in its mid-term. Prices are fixed on a flow-by-flow basis at commercial rates. This is a highly competitive market and some erosion of the Board's share of it seems likely.

#### Red Star

4.6 Red Star provides a station-to-station service on scheduled passenger trains, with a newly introduced transfer service between stations in London ("one-stop London forwarding").

4.7 The main advantages of Red Star over competing services are:

- (a) late acceptance (up to 9.30 pm at some stations);
- (b) specified arrival time, on a scheduled train service; and
- (c) "same day" arrival facility, especially on longer routes.

4.8 Red Star was developed in the late 1960s and grew throughout the early and mid-1970s. In the late 1970s, however, competition became more intense from both road hauliers and the Post Office, particularly on overnight deliveries and along motorway routes. Red Star has also been affected by the recession. The volume of traffic fell by 22 per cent between 1979 and 1981.

4.9 Research carried out by the Board in 1981 suggested that:

- (a) Red Star's overall share of the premium parcels market was about 25 per cent;
- (b) the main factor inhibiting users from sending more of their urgent packages by Red Star was the lack of collection and delivery facilities. (The Board have recently introduced an overnight delivery service—"Night Star"—operated in association with a private sector specialist road carrier.)

4.10 The Board see Red Star's main market strengths as speed and reliability. They consider that the premium parcels market is likely to continue to expand. In our view, Red Star's prospects in that market will depend largely on:

- (a) maintaining the service's reliability and achieving planned arrival-times;
- (b) the extent to which road-based competition succeeds in attracting customers away from Red Star, particularly on the medium-distance routes;
- (c) the success of the new overnight delivery service.

#### Newspapers

4.11 The Board estimate that they have about 70 per cent of the total market for the distribution of newspapers within the UK. They have 5-year contracts with the main newspaper publishers. The current contracts will expire at the end of 1984. Prices are negotiated with each publishing company.

4.12 Since the railway already holds so large a share of the newspaper distribution market, we think the Board are unlikely to be able to increase it; the present volume of traffic is likely to be at risk for a variety of reasons. These include the difficulties of the newspaper industry itself and, in the longer-term, the introduction of "remote" printing of newspapers, using new technology.

#### Financial Prospects of the Parcels Business

4.13 Like the freight business, the parcels business is allocated only its avoidable indirect costs. Its share of these costs is small because no routes are used exclusively by the business and much of the traffic is carried on passenger trains. From 1983, however, Inter-City will make a charge to the parcels business in recognition of the benefit the parcels business gains from that sector's services.

4.14 The "opportunity level" of the Board's 1982 Plan (October Revision) forecasts the following results for the parcels business up to 1986.

TABLE 4.1: **Parcels Sector Forecasts, 1982 Rail Plan (October Revision—"Opportunity Level")**

<i>1982 Prices</i>	<i>1982 £m</i>	<i>1983 £m</i>	<i>1984 £m</i>	<i>1985 £m</i>	<i>1986 £m</i>
Revenue	95	107	110	108	109
Costs <sup>1</sup>					
Operating Profit <sup>1</sup>					
Interest credited <sup>1</sup>					
Profit <sup>1</sup>					

*Note:*

<sup>1</sup> Figures omitted from published Report at the Board's request for commercial reasons.

4.15 Tough competition from road hauliers and the prospects of only slow economic growth do not provide a promising trading environment for the parcels business. In particular, the prospects for the Post Office traffics are uncertain. We are inclined to think, therefore, that the forecasts of revenue in the 1982 Plan (October Revision—"Opportunity Level") err on the side of optimism. We believe that the efforts of the parcels business should be concentrated on:

- (a) finding and implementing further measures to reduce costs;
- (b) restoring the damage done to their customers' confidence by the 1982 strikes; and
- (c) preparing contingency plans so that they are able to respond quickly to changes in demand.

4.16 In Chapter 12 we draw together our comments on the opportunities for reducing the costs of the railway in 1986. We estimate, on the assumptions and subject to the qualifications made there, that these cost reductions could improve the parcels sector's profits in 1986 by about £6 million compared with the "opportunity level" of the 1982 Rail Plan (October Revision).

## CHAPTER 5

### SELLING THE RAILWAY'S SERVICES

5.1 Improvements in the finances of the railway will, we believe, depend crucially on the achievement of cost savings. Real increases in L&SE passenger fares apart, there seems to be little scope for increasing the revenues of the sectors beyond the levels forecast in the 1982 Rail Plan (October Revision). But that does not mean that the selling of the railway's services deserves less attention or improvement than more effective cost-control and the drive for greater efficiency. On the contrary, the railway will continue to face tough competition from other modes of transport, with a real risk to its present market share. In this Chapter, therefore, we draw attention to some aspects of marketing and revenue-collection which deserve detailed examination or where we believe there are opportunities for improvement. Most of our remarks are concerned with the passenger business.

5.2 The railway exists to serve its customers. Potential and actual users of the railway need to be convinced that the people who run the railway, at all levels from the Board downwards, want their business and do not take them for granted. For example, the Board should attach priority to ensuring that their information services to passengers—whether waiting on platforms or travelling on trains—are reliable and of higher standard. Telephone enquiry services should also be improved. However, the railway should not set out to please its customers irrespective of cost. We see no necessary conflict between a railway that is customer-oriented and one that is highly cost-conscious.

5.3 The Board must be on guard against retaining market share at too high a cost. It is our impression that those concerned with promoting sales have been insufficiently involved in assessing the cost of the services they were promoting. The introduction and development of "sector management" (discussed in Chapter 9) is intended to reduce that risk.

5.4 There are two further matters to which, in our view, the passenger Sector Directors should give early consideration. The first of these concerns "saver" fares and other reduced fares schemes designed to generate off-peak travel. We accept that it makes sense to increase revenue through schemes for reduced fares and thus to make fuller use in the off-peak of the resources needed in the peak periods. The introduction of "saver" fares was a valid short-term measure to respond to the increased competition from long-distance coach services following the passage of the Transport Act 1980. We are not convinced, however, that such large discounts are justified in the longer term when resources can be reduced in line with changes in demand. We consider, therefore, that there should be a detailed examination of all the Board's reduced fares schemes (including Railcards) to establish their resource implications and their continued validity.

5.5 Second, we suggest that the passenger Sector Directors should work out with the Chief Passenger Marketing Manager detailed objectives and guidelines for regional sales staff. There appears to be some duplication, and sometimes conflict, between the efforts of the Headquarters and the regional sales forces. In our view, selling and promotion need to be under the firm central direction and control of the Chief Passenger Marketing Manager, acting as a "service function" for the Sector Directors.

5.6 The range of fares, travel cards, and special promotions now on offer to the passenger is large and confusing. The Board are planning to introduce a revised and simplified structure. We consider this is urgently required.

5.7 There would be positive benefits, in our view, in the development of a brand management marketing system for the passenger business. There would be a brand manager responsible for the marketing of each "product" or group of products. The freight and parcels businesses already have systems along these lines and we commend their extension into the passenger business.

5.8 Brand management would need to be made consistent with sector management. Some of the products—notably in the leisure market—cross the boundaries of the passenger sectors. But Sector Directors should, in our opinion, have "bottom line responsibility" for all that occurs within their sectors. So the activities of the brand managers should be of direct concern to the Sector Directors. We suggest therefore, that the brand managers should report to the Chief Passenger Marketing Manager, who should be required to respond to the requirements of the Sector Directors.

5.9 The Board are a leading advertiser. They ranked fourteenth in the UK list for media expenditure in 1981, when they spent £11.3 million (1981 prices) on media advertising for all their products (rail and non-rail). The Board's total expenditure on rail publicity almost doubled between 1977 and 1981. As a percentage of revenue, the expenditure increased from 0.60 per cent in 1977 to 1.18 per cent in 1981.

This level of advertising is not out of line with other industries. For example, the Board's passenger media advertising in 1981, as a percentage of revenue, was 0.86 per cent. This compared with 0.77 per cent in retailing, 1.05 per cent in food, and 2.45 per cent for automobiles.

5.10 There is a wide variation in the ratio of advertising expenditure to the estimated revenue of the Board's passenger "products". This is shown in the following table, which analyses the media and related expenditure controlled by the Board's Headquarters.

TABLE 5.1: Headquarters Advertising Expenditure as a Percentage of Estimated Revenue, by Passenger Product, in 1981

<i>1981 Prices</i>	<i>Revenue £m</i>	<i>Advertising £m</i>	<i>Advertising/ Revenue %</i>
Railcards			
Students/young persons	73.1	0.47	0.64
Senior citizens	41.8	0.44	1.05
Family	26.0	0.36	1.38
Other	27.1	0.05	0.18
Total	168.0	1.32	0.79
Awayday	168.5	2.90	1.72
Weekend	29.6	0.05	0.17
Business	265.0	2.18	0.82

We suggest that:

- (a) an analysis should be made of the effectiveness of advertising as a means of generating revenue. In particular, the large sums spent on Awayday promotions should be appraised;
- (b) greater central control is required over advertising expenditure by the regions, along the lines indicated in paragraph 5.8.

5.11 We commend the Board's decision to introduce new microprocessor-based automatic ticket machines. Their introduction—which is, in our opinion, overdue—should improve the Board's ability to collect and evaluate up-to-date information on demand, react quickly to changes in the market, and make more rapid adjustments to the level either of fares generally or of special discounts.

5.12 The Board attach lower priority to the introduction of Automatic Revenue Collection (ie entry and exit barriers on platforms operated by magnetically encoded tickets), which they have been examining since the early 1970s. They estimate that fare evasion and fraudulent travel in the L&SE area is running at about £12 million a year (around 2.5 per cent of revenue). Estimates are not available for the other passenger sectors but the Board think that fraud is less outside L&SE. The introduction of automatic barriers would counteract fraud and reduce staff costs. The Board estimate the cost of installing barrier gates in L&SE at £25 million. The cost of installing the associated ticket machines would be additional. In our view, the potential financial benefits from reduced fraud and from staff cost savings make the introduction of Automatic Revenue Collection in L&SE an early priority for investment.

5.13 We conclude with a comment that applies to all sectors of the railway. The temptation in marketing is to retain market share without sufficient regard to the long-term costs. That temptation must be firmly resisted if the railway's financial position is to be improved. It is essential, therefore, that traffic should not be sought unless it can reasonably be expected to maintain or enhance the net revenue of the railway in the long term.



## CHAPTER 6

### ENGINEERING

#### Introduction

6.1 Engineering costs (about £1,400 million in 1981 out-turn prices) account for more than half of total rail costs. The Board have said repeatedly that engineering expenditure needs to be increased, and that the physical condition of the railway is deteriorating.

6.2 R Travers Morgan and Partners (TM) were commissioned to examine critically the Board's expenditure on engineering. As far as we are aware, this was the first independent review of the Board's engineering departments. Within the time-limit set for the Committee, our consultants had less than 6 months to seek out available data, analyse them, draw conclusions and report. They had necessarily to concentrate on the criteria and methods used for determining engineering standards rather than on a detailed review of the standards themselves, and to exercise judgement on many matters which would repay further study.

6.3 Our consultants produced a summary report\* (which is being made available separately to the Secretary of State) covering all the subjects into which they inquired. They discovered important areas where the Board had insufficient data to allow sensible analysis. In some cases the Board were aware of the deficiency and were taking steps to improve the information available to management, but serious weaknesses remain, especially in relation to unit costs. Until these are rectified, management cannot have a full understanding of the causation of engineering costs. (This subject is discussed further in Chapter 9.)

6.4 We have confined ourselves here to giving our views on the main opportunities identified by our consultants for improving efficiency and achieving cost savings. Firm management action will be required if these potential savings are to be achieved. In some areas they will be offset in part by the increased investment required to achieve savings, and in others by adverse revenue effects. These were not evaluated and will require further study. But our overall view is that the Board should be able to achieve net savings in engineering expenditure, relatively small in the next few years but growing throughout the next decade.

6.5 Because of the Board's statement that assets were deteriorating, we paid particular attention to the Board's statutory duty to "have due regard to . . . safety of operation" (Section 3(1) of the Transport Act 1962). This has a significant bearing on the costs incurred. We quote below the Conclusions relating to safety of the Chief Inspecting Officer's Annual Report for 1981, published on 24 November 1982:

"Railway safety is not a single, measurable, entity but an amalgam of the safety of those who travel by train, those who work on the railway, and those who may be affected by what happens on the railway. Looked at as a whole, 1980 was the safest year in the 151-year old history of mainline railways in Britain and although 1981 saw an increase in the total number of accidents the increase was marginal and in some respects, in particular the number of persons injured, the 1980 record was actually surpassed. To set against the traffic accidents at Ulleskelf and Seer Green, British Railways could point to the fact that the number of train accidents for which they could be held directly responsible—those caused by staff error or technical defect—was the lowest ever recorded, and that the total number of casualties amongst railway staff was also the lowest ever.

"This impressive safety record may seem surprising in view of the widely held belief that the railways of Britain are in a state of near collapse and that safety standards must therefore be deteriorating. The truth is that, so far at least, the Railway's policy of putting safety before operational or commercial considerations has prevented any serious erosion of their traditionally high safety standards. Where, for example, track cannot be maintained to the standard judged necessary for a given line speed, the speed is reduced; eventually the track might be judged unsafe at any speed and traffic will then stop. The danger in this situation is that, as the number of decisions (in this case whether or not track is able to continue to carry traffic safely at the speed required by the operating department) increase so does the chance that some of the decisions will be wrong. I have mentioned, in paragraph 15, a number of cases where accidents resulted from errors of judgement on the part of the permanent way staff. Similar decisions have to be made in respect of outworn signalling equipment and rolling stock. But, as I have said, for the moment there is no evidence that safety has been prejudiced by the Railway's current financial difficulties.

"Within the overall safety picture there are some areas that give cause for concern. I have drawn attention to the significant increase in the number of collisions during 1981 and to the less marked, but nevertheless worrying, increase in the number of derailments. The increase in these accidents is entirely due to an increase in errors by railway staff. It is hard to single out any particular reason

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\* Included in Supplementary Volume.



for this but it is to be hoped that it is not symptomatic of what some observers have seen as a decline in the morale of railway staff in the face of long-running industrial troubles and the resulting criticism of the railways by press and public.

“By contrast, it is mechanical failure that has led to an increase in the number of fires in trains. The serious increase has been in the number of underfloor fires in DMUs, a problem that has dogged these trains ever since their introduction in the late 1950s. The mechanical engineers have, on the whole, contained the problem over the years by modification, refurbishment, and by constant attention to inspection and maintenance but, as the fleet becomes older, it becomes more and more difficult to prevent the kind of mechanical failure that can lead to fire. The position is unlikely to improve and it points to the need for clear and early decisions on the replacement of the fleet.”

## General

6.6 The railway has three main engineering functions, exercised by:

- (a) the civil engineers (CE), responsible for the permanent way and structures—employing about 34,000 staff at the end of 1981;
- (b) the signal and telecommunications engineers (S&T)—employing about 10,000 staff at the end of 1981;
- (c) the mechanical and electrical engineers (M&EE) responsible for traction and rolling stock and power supply—employing about 23,000 staff at the end of 1981.

Together they employed about 67,000 people. In addition, British Rail Engineering Limited (BREL), which does heavy repair and new build work for the railway, employed about 35,000 people at the end of 1981.

6.7 The engineering functions are managed largely on a regional basis. M&EE have 1,600 staff at headquarters mainly engaged in rolling stock design, but for the others the numbers at headquarters are relatively small (190 for CE; 160 for S&T; and 350 for BREL). The great majority of salaried administrative staff—nearly 19,000—are employed in the regions. We doubt whether the present balance of work between headquarters and regions is appropriate. With the development of sector management, the role of the HQ engineers in determining annual spending levels should diminish, and they should be able to concentrate on giving technical guidance to the regional engineers, comparing performance and encouraging good practice. This should produce some net economies in staffing at headquarters. However, in view of the small number of signalling schemes in hand at any one time, S&T design skills could with advantage be centralised. Similarly, in M&EE there could be an advantage in controlling maintenance centrally, with all maintenance depots transferred from the regions to the Director of M&EE. This could achieve better utilisation and assist concentration of maintenance on fewer depots (see para 6.47). Overall, we think that there is scope for considerable reductions in the number of salaried posts in the engineering departments. A leaner organisation, with fewer salaried posts, might save as much as £30 million a year in addition to the savings identified below.

## Civil Engineering

6.8 The civil engineers are responsible for the upkeep of 26,500 miles of track (10,800 route-miles), 44,000 bridges, 700 tunnels and nearly 3,000 stations and depots. Total civil engineering expenditure in 1981 was £573 million (1982 prices), made up as follows:

Track renewals	£128m
Track maintenance and ballasting	£173m
Structures and other civil engineering work	£115m
New work	£96m
Administration	£51m
Other	£10m

6.9 Keener prices could be obtained for the new rail and sleepers used in *track renewals*. At present all steel rail is obtained from the British Steel Corporation, and the Board use only two suppliers for concrete sleepers, both operating on five year contracts. For both rail and concrete sleepers the Board have “call-off” contracts in which only a minimum quantity is fixed and final quantities are determined quarterly. These flexible arrangements may be sensible while the Board adjust track renewal in order to meet cash limits. But we do not think that this is good management practice, and if it is brought to an end, perhaps through the special earmarking of part of the PSO grant for this sort of expenditure, then it would pay the Board to negotiate less flexible, and thus less expensive, arrangements. This change, together with the introduction of competitive tendering (possibly involving overseas purchase), could enable the Board to secure price reductions of up to 10 per cent, which would be worth about £4 million a year.

6.10 In recent years track renewals achieved have been less than planned, and the Board say that a sizeable backlog has occurred, which is reflected in their plans for future expenditure. However, our consultants found little evidence that a significant backlog of track renewal was accumulating. There has been an increase in the number of temporary speed restrictions imposed for safety reasons, but these cover only 300 miles, mostly on less heavily trafficked lines where lower speeds are for the most part operationally acceptable. The Chief Inspecting Officer of Railways told us that the main lines were in good condition, and that he had received firm assurances from the Board that safety was not being prejudiced on any part of the system.

6.11 We suggest that for the next few years it should be possible to hold the volume of CWR renewal expenditure at roughly its 1981 level without prejudicing safety or the efficient operation of the railway. If this were done, the CWR renewal expenditure in the 1982 Rail Plan (October version) could be reduced by £92 million in total over the four years 1983–86.

6.12 In one particular area more needs to be spent. The softwood sleepers widely installed in the 1950s and 1960s on what are now lower category tracks are approaching the ends of their lives and will need replacing. This can be done most economically by spot replacement rather than wholesale track renewals. It would cost about an additional £5 million a year.

6.13 Until recently track renewal has meant that some rails have been discarded which might still have had a useful life on more lightly trafficked lines. Partly as a consequence of the Board's development of re-profiling techniques, the Board plan to cascade rail from major to minor lines, a policy that will reduce the requirement for new rail. This policy is not yet fully developed, but should produce important savings when more rail and sleepers become available from the more heavily trafficked lines. These savings cannot, however, be expected for some time yet.

6.14 We think that the Board could carry out track renewal work more efficiently. The granting of track possessions for complete and partial renewals is dictated by the operational staff. Timetables are so constructed as to allow slack time for these possessions on Sundays. This practice is expensive in terms of labour costs, and the track relaying equipment is not then used very efficiently (the average workload of a relaying machine is only about 13 miles a year). There could be better utilisation of the equipment if track possessions were granted during the week. This measure might have consequences for revenue, but there is no sign that the engineers and operators together evaluate the financial "trade-off" between reduced costs and reduced revenue as a matter of routine. Another way of increasing efficiency would be the use of single track possessions for relaying rails (and for ballasting, a maintenance activity), all trains being routed temporarily over the adjoining track. Such measures would, however, require the investment of about £10 million on new machines and the development of safe working practices.

6.15. Savings of up to 40 per cent in the cost of manpower and equipment might be obtained through more efficient work programming and a different approach to track possessions. Total renewal costs might be reduced by 20 per cent (about £25 million a year). From the changes suggested here there would be some off-setting revenue effects which have not been studied, but we would still expect net savings.

6.16 *Track maintenance* consists of routine day to day maintenance and programmes of re-ballasting and alignment correction. Because of a tendency to allocate track to higher maintenance categories than the traffic justifies, some sections of track are being maintained to a higher standard than is necessary. This tendency results in higher manning levels than are necessary. Rail alignment standards, though generally sound, might be reduced on minor lines.

6.17 It is difficult to tell from the available data whether or not all maintenance work actually carried out is necessary to keep the track in a satisfactory condition. Some experiments should be carried out, particularly on minor lines, to establish the lowest level of maintenance consistent with maintaining safety, avoiding defects and maintaining alignment standards. In our opinion a review of maintenance levels and their manning implications is overdue. Comparisons between regions show that the budgetted costs per equated track mile are twice as high in the most costly region as in the least costly. While the comparison is not precise because of data differences, it reinforces our view that there is scope for greater efficiency. Bearing in mind the scope for lowering maintenance standards on some lines, we think an overall saving of 20 per cent, worth some £30 million a year, might be made in track maintenance costs.

6.18 The Board spent £42 million (1982 prices) in 1981 on *structures*; maintaining bridges, viaducts, tunnels, retaining walls, sea defences and other miscellaneous structures. There is great variation in the nature and age of these structures, and there can be no reliable method of estimating their remaining life. There is no point, therefore, in devising a long-term renewals programme. The structures require and receive regular inspections to see whether renewals or repairs are necessary. There is no evidence that a significant backlog of maintenance work is building up, but in view of the great age of many of the structures they may well require significant additional expenditure over the next decade.

6.19 The Board have accorded low priority to expenditure on the *upkeep of stations*. We accept that there is no proven revenue effect, but consider that the state of many of the Board's stations must be a deterrent to travellers.

#### Signal and Telecommunications Engineering

6.20 At the start of 1982 there were 334 signal boxes controlling 31,000 colour light signals and 2,200 manual boxes controlling 22,000 semaphore signals. (Some boxes have both functions.) In general, the main routes have modern power signalling; the older mechanical equipment is mostly on minor lines. Mechanical signalling typically requires about half of the maintenance expenditure needed by modern electrical signalling. However, the more modern equipment needs far fewer signalmen; its manpower costs may be one-fifth (or less) of those required for mechanical signalling.

6.21 Signalling has to be safe and reliable, and is designed so that failures will not cause danger. This emphasis on safety has, however, led to some reluctance in the Board to contemplate changed signalling standards on less heavily trafficked lines.

6.22 There is a high degree of standardisation in equipment components—relays, etc—but each individual installation tends to be custom designed. If standard signalling installations were used more widely, the investment costs of plain line signalling could be reduced by as much as 25 per cent, a saving of about £3 million a year. Such a step might make it easier for smaller companies to tender for signalling contracts; these currently go almost exclusively to two large firms.

6.23 The strongest justifications for replacing old signal equipment are to secure safety and reliability or sufficiently to reduce operating costs. However, signalling investment schemes have often provided greater capacity or higher specifications than necessary. They appear to have been designed to meet a particular operational requirement, sometimes greater than the existing requirement, without much analysis of the savings that might be achieved by revising the existing requirement downwards slightly. Bearing in mind not only the initial cost but the commitment to a life-time of maintenance costs, we think that in future each item in a signalling investment project should be critically appraised.

6.24 The Board's National Signalling Assessment (NSA), produced in February 1979, forecast increasing expenditure on signalling renewal as the need to replace the first generation of colour light signalling coincided with the need to replace older mechanical signalling. The NSA forecast that signalling and track rationalisation investment would have to increase to £123 million a year (in 1982 prices) during the period 1983 to 1999. This increase is reflected to some extent in the Rail Plan which shows signalling and track rationalisation investment rising from £70 million in 1982 to £101 million in 1986.

6.25 It is not easy to assess when signalling renewals will be required. The Board say that this requires an engineering judgement which anticipates operational failure of the equipment. As the equipment is designed to "fail safe", we consider that this engineering judgement may have been applied rather conservatively. In principle, older mechanical equipment should be replaced by its modern counterpart only when the rise in its maintenance costs results in uneconomic overall costs. But information on maintenance costs related to age is not available to management, and the savings in operating costs to be obtained from employing fewer signalmen rarely justify investment in new equipment. In those circumstances replacement is justified only when the old equipment becomes so unreliable as to be unable to cater for the timetabled service. This suggests that a policy of doing the minimum repairs necessary is the right approach.

6.26 If such a policy were adopted on minor lines, and if on major lines the Board adopted the same critical approach as they have recently shown in appraising the Leeds signalling scheme (where Sector Directors rejected a £20 million scheme as too expensive, and a cheaper one, costing perhaps half as much, is now being designed), then the signalling investment requirement would be reduced.

6.27 For the future, more consideration needs to be given to the development of two-way signalling schemes, either to allow further track rationalisation or to facilitate single track possessions for civil engineering works. Greater emphasis also needs to be given in the signalling programme to schemes which allow track rationalisation. This would increase the signalling investment requirement but should lead to overall savings in infrastructure costs.

6.28 Technological innovation should reduce signalling costs in three areas:

- *Radio despatching* offers a modern alternative to mechanical signalling on lightly trafficked lines. A trial scheme is to be introduced in 1983. The payback period for some schemes can be as little as one year.
- The use of *solid state technology* instead of electrical relays, which is to be introduced, on a trial basis, by 1984, with an expected 10 per cent reduction in equipment installation costs. It will also facilitate the conversion of manual boxes to power control on an individual basis while providing for their transfer to central control at a later date. This will allow a more economic approach to signalling replacement.

- *Automatic route setting* would reduce manning levels in power boxes, saving up to one-third of operating costs. The investment cost has not been determined, but it could produce operating savings of about £10 million a year if applied to all power installations. This could take many years as it would probably be economic to introduce automatic route setting into power installations only when they are replaced. A trial installation should be operating by 1985.

6.29 The criteria for *signal maintenance* are safety and reliability. At present, technicians are always on duty to provide fault cover in the areas covered by power boxes. This practice is expensive and is currently being reviewed by the Board. Savings of £5 million a year could probably be achieved by accepting a lower standard of cover outside peak times.

6.30 More than one-half of signalling failures are not due to faults in the equipment itself but, rather, to damage caused by vandals, by the weather or by those working on the track. These reasons suggest that there is some scope for reducing the number of faults.

6.31 Preventive maintenance is carried out on a 4-week cycle of inspection. There is no evidence to show that this frequency is optimal: it was suggested to our consultants that it could perhaps be halved with little increase in faults. Comprehensive experiments with revised frequencies should be carried out. However, if they are to be of use, there will need to be an improvement in fault reporting and analysis. Few records are maintained at present, and hardly any work has been done to develop unit costs from actual data. Unit costs, insofar as they can be estimated, vary considerably within and between regions, which suggests that the quality of scheduling of maintenance is itself variable. Costs may be expected to vary with traffic, with the complexity of layout, and with the age of the equipment, but absence of data does not allow any sensible analysis to be made of the importance of these different factors.

6.32 Though the distinction between maintenance and installation teams should be retained, we think that the responsibility for fault cover and routine maintenance should be combined in one technician.

6.33 We estimate that the revised signal maintenance procedures discussed here could save £5 million a year.

#### **Mechanical and Electrical Engineering**

6.34 The design, acquisition and maintenance of traction and rolling stock is the main function of the Department of Mechanical and Electrical Engineering (M&EE). The headquarters organisation (about 1,600 staff) is responsible for co-ordinating planning and budgeting, setting and maintaining standards of maintenance, and designing and planning the procurement of new and modified vehicles. The 20,000 staff employed in the regions are mainly engaged in maintenance work. M&EE is also responsible for the traction and rolling stock work done on its behalf by BREL.

6.35 Rail vehicles need to be durable, reliable and safe. Coaching stock and multiple units need also to be comfortable and attractive. The Board is unable to produce *designs* to meet all of these requirements in the most cost-effective way because of the lack of detailed data, especially on reliability and lifetime costs. For the future much is to be gained from collecting and deploying more data on operating costs, and increasing feedback into the design process.

6.36 More specific criticisms can be made of the Board's designs. The Board appear to have accepted too readily the need for increased sophistication in new vehicles, which has increased both initial and lifetime costs. This tendency towards increasing sophistication and the incorporation of expensive optional features results in part from the organisation of design within the Board. It is very much design by Committee. Designs emerge from a lengthy process reflecting the detailed preferences of the different parts of the Board. They are specified in great detail, which means that outside suppliers have generally to conform to the design specification instead of being in a position to offer possible cheaper designs to meet a performance specification.

6.37 The vehicle specification and design process needs to be restructured to provide a more coherent approach to specification, design and construction, having regard to lifetime fleet operation and maintenance costs. More specifically, the Board should focus their attention on the selection of design concepts and the preparation of technical performance specifications, leaving detailed design to the vehicle builders. This should produce more cost-effective designs, with substantial savings in vehicle acquisition and lifetime costs. Consideration of vehicles available from outside suppliers should be an important element in this changed approach. In particular, there should be a full appraisal of the cost advantages of buying foreign components and locomotives, either purchased direct or assembled in the UK under licence.

6.38 Many components are purchased from private sector suppliers. Typically, about half of the cost of a new locomotive will be accounted for by the purchase of components from private sector suppliers. It is the Board's policy to "dual source" wherever possible. While we support that policy, it does occasionally

cause some difficulties, mainly because the procurement function tends to be separate from the specification and design process. There should be a close link between engineering specification and procurement, not only of vehicles but also of equipment generally.

6.39 A lack of standardisation of design has increased both initial and lifetime costs. The most striking example is locomotives where there are at present 13 diesel classes, many with distinct sub-divisions, and 6 electric classes. The cost penalty of having so many different types is probably considerable. Many locomotives are used for both passenger and freight traffic, and this seems to achieve higher utilisation. More recently, however, the Board have developed specialised locomotive fleets. It is not clear that the longer term costs of this policy have been expressly considered. We suggest that they should be fully assessed before there is an increased commitment to specialisation.

6.40 Commitment to the Advanced Passenger Train has dominated the Board's view of future passenger motive power requirements for some years. The development of an electric HST power car prototype has not been pursued but should now be pursued urgently. A design contract for a 125 mph locomotive (Class 89) is being let to the private sector. We recommend that there should be a full economic assessment of the roles of these three competing vehicles with a view to an investment decision in about 2 years time. In the meantime the APT should be remitted to Research and Development until the need for major changes has been more firmly determined as a result of further test running.

6.41 The design of replacements for the existing Diesel Multiple Unit (DMU) fleet has been characterised by lack of a clear policy perspective and by differences of view over lightweight design. Two distinct designs have emerged: the class 141 railbus and the heavier duty class 210 diesel-electric multiple unit (DEMU). The class 210 DEMU has turned out to be so costly that it is doubtful whether it will find any customers, either in the PTEs or in the Sector Director, Provincial Services. An intermediate design is needed for the more heavily trafficked services. It may be that the class 141 railbus is also too expensive for some services. If the whole of the existing network were retained, it could be worthwhile for the Board to develop a cheaper, less sophisticated version of the class 141 railbus for the most lightly trafficked lines. The class 141 does not seem to have realised the full potential of a lightweight design, as it costs three times as much per seat as a normal bus. The standards for structural integrity have been related mainly to rigidity and the avoidance of deformation in the event of a collision. Reluctance to depart from these criteria, eg by examining the automotive approach of designing to absorb energy in impacts, appears to have hindered the emergence of a satisfactory multiple unit design for less heavily trafficked routes.

6.42 The economic life of a vehicle should be judged in terms of a balance between capital costs and maintenance costs savings. Because of the lack of reliable data on maintenance costs, however, it is difficult to say whether the Board are replacing vehicles too early or too late. The Board are taking steps, including the establishment of a cost of ownership data bank, to remedy this weakness, but the data bank is not expected to be completed for another 3-5 years. In view of the continuing rise in maintenance unit costs, and the lack of knowledge about the cause of that trend (see paragraph 6.46), this work should be given much greater priority.

6.43 This action could pave the way to a more clearly articulated and comprehensive approach to fleet planning, which would improve the quality and robustness of individual investment decisions. It is clear that if the railway is to continue broadly as at present, the current rate of investment will have to be increased (see Chapter 8). This makes it especially important to secure more cost-effective designs and lower prices. If competitive purchasing, from foreign as well as home manufacturers, is introduced, then the Board should be able to make investment savings of about £20-25 million a year on 1981 investment levels.

6.44 *Vehicle maintenance* is an area of great concern in view of the total annual spend, £473 million (1982 prices), and the continuing rise in unit costs which results from ageing and from replacement vehicles having higher maintenance costs than the vehicles they replace. Day to day maintenance and some light and intermediate repairs are carried out in regional depots. For other intermediate repairs and nearly all general repairs vehicles are sent to BREL workshops (see paragraph 6.49).

6.45 Vehicles are inspected at scheduled intervals, determined by time or by hours in service. There is no hard evidence that the inspection intervals are optimal. Because maintenance records are not kept for individual vehicles it would be difficult at present to investigate the consequences of extending those intervals.

6.46 Depot maintenance costs have been rising (by about 30 per cent in real terms for some vehicle types) since 1977. A small part of this rise can be explained by the greater complexity of modern designs. Another factor (though not, we think, a major one) is the average age of the fleet which has increased by about 2 years during this period. There is no reason to think that the higher costs represent better



maintenance, since vehicle availability has not improved. We attribute most of the increase to a decline in efficiency. Depot staffing levels have fallen substantially less than traction hours or the size of the carriage and wagon fleets; and senior staff numbers have increased. The improvement of information on costs should lead not only to a better understanding of costs, but to improved efficiency, which could result in cost savings of about £20 million a year.

6.47 We think that there could be cost advantages in rationalising the maintenance operation. At present, there are 150 maintenance depots, 77 for traction units, 46 for passenger rolling stock and 38 for wagons. We suggest that the Board should undertake an early assessment of rationalisation, concentrating in perhaps 20 depots all the maintenance work that requires vehicles to be taken out of service. This might save up to £25 million a year, but would require considerable investment and would involve some additional operating costs because of increased "light running".

6.48 Stocks of spares held in regional maintenance depots amounted to some £72 million in August 1982, representing 23 per cent of annual consumption. We think that there is scope for reducing stock levels by £10 million by reducing service levels (ie the chance of a part being available at depots) from about 90 per cent to 80 per cent.

### **BREL Maintenance and Repair**

6.49 In 1981 vehicle maintenance and repairs carried out by BREL cost £266 million (1982 prices)—55 per cent of all maintenance expenditure. BREL carries out heavy maintenance and repairs for the Board on the basis of standard charges, related to BREL's costs in the previous year. "Heavy maintenance" includes all periodic major work (ie that which is scheduled to be undertaken at intervals during a vehicle's service life), and some special work such as refurbishment and modifications, for example asbestos removal. BREL also undertakes major repairs of rolling stock which has been damaged in service or which has experienced component failure before the next scheduled repair.

6.50 BREL holds and uses much more information on the costs of maintenance than the M&EE depots do, but its procedures for analysing and using the data are not yet fully developed. However, the information available does enable us to analyse the causes of the recent increase in the unit costs of BREL repairs.

6.51 Over the 5 years 1977–1981, the total costs of repairs undertaken by BREL remained roughly constant in real terms, but the number of repairs declined. Costs per repair rose over the period by 40 per cent or more for locomotives, by 35–40 per cent for multiple units, by 25 per cent for HSTs and by 15 per cent for coaches. About one-fifth of these increases could be explained by lengthened intervals between repairs, with consequent increases in the work required for any given repair. The average age of most types of vehicle in the fleet is rising, and this ageing factor may have been responsible for one-third of the unit cost increases. A rise in the work content of specified repairs, eg asbestos removal, probably accounted for about one-sixth of the increase, and greater vehicle utilisation for about one-tenth. These calculations leave about one-fifth of the overall increase unexplained. On this basis, costs in 1981 were some £10 million higher than if overall efficiency had not deteriorated. When account is taken of BREL's plans to reduce their capacity (see Chapter 7) there appears to be a total potential cost saving of some £20 million a year.

6.52 However, this saving will be largely offset by the fact that repair costs are expected to rise at 2 per cent a year (perhaps more), for the next few years, because of the ageing of vehicles. As a result, annual repair costs would rise by about £20 million by 1986. Total repair costs will decline only if the vehicle fleet is reduced or if increased investment reduces the average age. The effect of changes such as these would not be felt until the late 1980s.

### **Operations**

6.53 It is the engineers' responsibility to make available the vehicles needed by the Operations Department. If the latter's requirements are excessive this affects total engineering costs. Our consultants, therefore, examined *vehicle scheduling*.

6.54 The need for improved vehicle scheduling is reflected in the low utilisation achieved by all the Board's vehicles except HSTs. Diesel locomotives achieve only 42,000 miles a year on average. Electric locomotives should achieve a higher utilisation of 92,000 miles each in 1982, but this is expected to fall. DMUs and EMUs average 60,000–70,000 miles a year, meeting a peaked demand. The Board have been developing computer-aided train planning techniques, but these still require more development before they can be generally used. With advanced scheduling methods, an increase of perhaps as much as 10 per cent in utilisation could be achieved which would lead to a reduction of some £15 million a year in the investment required.

## Research and Development

6.55 British Rail's Research and Development Division spent £13 million in 1981. It has two main areas of work, a distinction reflected in the sources of funding. About 44 per cent of the work provides direct technical support to the operation of the railway. This work is contracted by the engineering departments on a block basis (as opposed to an individual project basis), but the costs are not charged directly to the sponsoring Departments, an arbitrary allocation being made. We suggest that the costs should be charged directly to sectors or sponsoring Departments. Of the other 56 per cent of the work, much is related to longer term, more fundamental research into railway technology. This work is jointly sponsored by the Board and the Department.

6.56 Many of the small projects included in the 44 per cent of internally sponsored work are to rectify deficiencies in bought-in components. It might be argued that this work would not be necessary if the suppliers were better controlled in the quality of their products. But the situation is complicated because equipment is often used beyond the manufacturer's specified conditions, or is maintained to different or uncertain standards.

6.57 The jointly sponsored projects form a wide variety. Some are related to recognised present day problems, others relate to speculative long term projects, and others to background research unrelated to any specific proposals. All types of projects are legitimately included in a Research and Development programme, but the balance of project types is too heavily weighted towards the speculative projects, and too much of the work is undertaken internally when it might better be contracted to universities or other institutions. Many of the projects relate to the Board's role as a designer of vehicles, a role which is questioned elsewhere in this Chapter.

6.58 Only 2 per cent of the present work programme is funded by private sources. Given the range of facilities available to the R&D Department it would be worthwhile considering whether greater sponsorship should be sought from the private sector. This could only be achieved if a more commercial and cost conscious environment is created. In the longer term up to 25 per cent of the work might be privately sponsored.

## Summary

6.59 For ease of reference, we have brought together the possible cost savings identified in this chapter. In all cases, the savings have been judged against 1981 out-turn figures as if the relevant measures had been taken before that date. The savings actually achievable in later years would not necessarily be the same, because they would be affected by changes in circumstances such as in the volume of expenditure, relative price increases etc, but a judgement on those achievable by 1986 is made in Chapter 12.

<i>Paragraph</i>	<i>Item</i>	<i>£m (1982 prices) Possible annual savings as compared with 1981 out-turn</i>
6.7	General	Staff reductions from reorganisation
		30
6.9	CE	More competitive system for procuring new rail and sleepers
		4
6.15		More efficient work programming of track renewal and different approach to track possession
		25
6.17		Reducing routine track maintenance
		30
6.22	S&T	Using standard signalling installations
		3
6.29		Lower standard of breakdown cover
		5
6.33		Revised procedures for maintenance
		5
6.43	M&EE	Competitive tendering, including foreign purchase
		20-25
6.46		More efficient maintenance
		20
6.47		Rationalisation of maintenance depots
		25
6.51	BREL	Eliminate over-capacity and increase efficiency
		20
6.28	Operations	Use of Automatic Route Setting
		10
6.54		Better vehicle scheduling
		15

It is most important to recognise that these figures have not been and should not be added to provide a "total". To do so would be misleading because:

- (i) adverse effects on revenue have not been considered;
- (ii) transitional costs (eg redundancy payments) have not been evaluated;
- (iii) some items would require investment;
- (iv) the dates of possible implementation vary.

6.60 We emphasise that we have identified areas where in our view there is potential for significant savings in engineering costs. Some of these savings would be relatively easy to achieve, but others would take much longer.

## CHAPTER 7

### BREL'S ROLE IN THE RAILWAY

7.1 In 1981, British Rail spent a total of £548 million (1981 prices) on the purchase and maintenance of its rolling stock. Of this total £109 million related to new build, while £439 million was for servicing, repairs and overhauls. 80 per cent of the total expenditure—£424 million—was paid to British Rail's wholly owned subsidiary, British Rail Engineering Ltd (BREL).

7.2 BREL was set up as a limited liability company on 31 October 1969, following the passing of the Transport Act 1968. That Act gave the Railways Board and other nationalised transport industries power to manufacture and repair for outside bodies in addition to meeting their own needs.

7.3 During the 1960s, as a result of the marked reduction in demand for traction and rolling stock not only in Great Britain but worldwide, the number of GB non-BRB manufacturers had already diminished substantially. It was understood that the newly permitted competition between BRB and those private manufacturers remaining to meet this diminishing demand should be seen to be fair. Accordingly, BREL was set up as a subsidiary company, separate from the rail business, parts of which were eligible for subsidy. The intention was that it should set its charges to BRB at rates which would enable the company broadly to break even, after taking into account private party work.

7.4 For BRB's own vehicle needs an agreement made with the Secretary of State in 1969 provided that the Board should seek competitive tenders from private firms and from its own workshops "where appropriate", and should place orders with the "most economical" source. The agreement included the caveat that "Economics in this context comprise, however, not only price, but such factors as satisfactory delivery or the capacity situation within their own workshops". In view of this the BRB decided in 1971 that the private sector should be invited to tender only when BREL was unable to do the work. We understand that the last occasion on which tenders were in fact sought for the supply of the Board's rolling stock needs was in 1974.

7.5 With little modification the 1969 arrangements still stand. We have considered how far these arrangements have enabled BREL to meet its objectives efficiently.

#### New Build

7.6 BRB is the only major railway in the world, other than that in India, which manufactures its own stock. New build in recent years has accounted for about 25 per cent of BREL's turnover.

7.7 Table 7.1 shows the changes in the unit costs of different vehicles built by BREL between 1977 and 1981.

TABLE 7.1: Unit Cost of BREL New Build from 1977 to 1981

1982 Prices	1977 £000	1981 £000	% Change
Locomotives	913	856	- 6
HST Power	671	652	- 3
HST Trailer	152	156	+ 3
Locohaunched Coaches	142	288	+103
EMU	194	218	+ 12
Freight Wagons	20.5	25.3	+ 23

7.8 The percentage changes in unit costs, although large for some vehicles, are consistent with variation in the particular types of vehicle built. The sleeper coaches constructed in 1981 were more expensive than the plain coaches constructed in 1977, and new freight wagons are more sophisticated than older wagons.

7.9 Because BRB has not sought competitive tenders, few firm conclusions can be drawn about BREL's price levels. But with the exception of locomotives, there is no prima facie evidence indicating that, for the designs specified, the cost of new build is excessive.

7.10 Comparison with prices of US and Japanese manufacturers show that BREL coach and EMU prices are competitive. This is consistent with BREL's relatively high production of these units.



7.11 However, BREL's diesel locomotive prices are high when compared, for example, to the prices of similar performance locomotives built by a large manufacturer in the USA. This can be largely attributed to BREL's low output of from 10-20 units a year, which compares with US production of 1,200 units a year in one works alone.

7.12 BRB accept that diesel locomotives can be purchased more cheaply from the USA, but have suggested that such locomotives might be considerably more expensive to maintain. Our consultants (TM) have not found up-to-date evidence to support this suggestion.

7.13 BRB have to obtain Government authorisation before making major overseas purchases. The Department say that this requirement does not prevent BRB from purchasing abroad, but is designed to ensure that before such purchases are made, British sources are properly considered. It is, nevertheless, not clear to us how far the Department's policy, or BRB's interpretation of that policy, inhibits BRB from purchasing overseas. The policy requires clarification.

7.14 A further alternative which should be considered is the assembly within the UK of locomotives and, where cost-effective, other rolling stock, under licence from overseas manufacturers.

### **Private Party Work**

7.15 Revenue from non-BRB customers has varied over the five years to 31 December 1981 from 4 to 9 per cent of BREL's total turnover.

7.16 Over the same period BREL has been successful in winning orders on about 15 per cent by value of the tenders it has submitted. The operating surplus, as shown in BRB's accounts, made by BREL from its private party sales has ranged between nil and 9 per cent of those sales.

7.17 BREL is planning to increase the value of its private party work from an estimated £8 million in 1982 to £59 million in 1986. Although BREL accepts that in terms of cost alone the company cannot compete with emerging producers such as Japan and Korea, it believes that its reputation for quality and reliability enables it to plan to expand this activity with some confidence.

7.18 BREL has advised us that the facilities required for this expansion of private party work will share, "on a commercial basis, the essential capacity primarily required for BRB workloads, thus reducing unit costs of BRB work." Our view is that BREL's plans must involve the retention of capacity which could otherwise be dispensed with. The costs of this capacity will have to be met by BRB if sales fail to materialise.

### **Repairs and Maintenance**

7.19 Repairs and maintenance, including "special work" such as refurbishment and asbestos removal, account for about 60 per cent of BREL's turnover. We have explained in Chapter 6 our view that savings of up to £20 million a year in this area may be attainable.

### **Manpower**

7.20 At the end of 1970 BREL employed 37,500 staff; since then numbers have fluctuated, from a low point of 32,400 at the end of 1973 to 36,600 at the end of 1980 as BREL geared up for expected BRB demand in the 1980s. At the end of 1981 staff numbers were 34,600. They are expected to be down to 31,600 by the end of 1982. Most of the workforce (about 85 per cent) are skilled or semi-skilled.

7.21 Over-optimism and uncertainty about BRB's future demand for BREL's services have in the past led BREL to employ more staff and apprentices than have been needed, with consequential increases in the charges to BRB.

7.22 Wage negotiations are conducted through the railway negotiating machinery, and we understand that the railway unions have been opposed to separating negotiations on the terms and conditions of employment in BREL from those of BRB generally. The present arrangements have resulted, however, in BREL sometimes suffering shortages in skilled labour because it has been unable to match the terms and conditions of other engineering employers. BRB's wider concerns and priorities in the industrial relations field have also sometimes influenced adversely BREL's own plans for improving productivity.

### **Capacity and BREL's Future Plans**

7.23 The period to 1979 was characterised by shortfalls in production, late delivery and cost over-runs, both for BRB and private party contracts. The maintenance and repair programme also fell behind schedule. Unavailability of traction and rolling stock contributed to a significant loss of freight business during 1979. The Manufacturing and Maintenance Policy Review, commissioned by the Board in 1978, expressed concern

that BREL's capacity for certain types of work, particularly high quality products, might be insufficient, resulting in loss of potential exports and third party work.

7.24 The Review also pointed out that BREL could not react quickly to adjust capacity as required, mainly because it had little control over the main variables—workload, wages, investment and design capability. It suggested that additional capacity could be created in the short term only by measures such as running down third party contracts, investing in new plant, increased payments to gain more skilled manpower, or by the more flexible use of tradesmen.

7.25 Since 1979, however, falling traffic and the failure of expected orders from BRB to materialise has reversed the problem, and workshops are now seriously under-utilised. The costs charged to BRB in 1981 for over-capacity amounted to £15 million (1981 prices), of which £9 million was "long-term".

7.26 In 1981 BREL undertook a detailed review of capacity based on its own estimates of workload. As a result, Ashford works was closed, and four further closures were planned to take place in the period to 1986. These further closures, which were originally intended to reduce numbers employed by 5,500/6,000 by 1986, were, however, deferred by BRB in June 1982. The BRB have now accepted revised rationalisation proposals for BREL. These proposals will, we understand, involve a net reduction in staff of 4,600 in the period 1983–86. The updated BRB Plan reflects these proposals.

## Problems

7.27 We have found a number of problems and areas of risk:

- (a) Although BREL's status as a quasi-independent company has created a sense of identity for its management, we are not satisfied that the current relationship between BREL and BRB is appropriate. We referred in paragraph 7.22 to the difficulties in the industrial relations field. There are also difficulties because, for certain types of maintenance, the dividing line between the work to be carried out by BREL and that by BRB is unclear, hindering the identification and reduction of spare capacity. For certain other functions, the division of responsibility is clear, but not accepted as appropriate by both parties. The transfer of design for private party work from BREL to BRB, for example, appears to have caused resentment.
- (b) Because of BREL's dependence on heavy, expensive plant and on skilled manpower the scope for rapid adjustment of capacity in the light of changed demand is limited. Although surplus capacity exists at present, three years ago BRB were complaining of lost business because BREL's resources were proving insufficient.
- (c) The problems in planning capacity are increased by BREL's wish to carry out work for private parties. We doubt BREL's ability to expand private party work by 1986 in the way it has planned, particularly as the indications are that competition from developing countries for coaches and wagons will grow in strength.
- (d) For locomotives, the demand generated by BRB is unlikely ever to be sufficient to allow economic production by BREL. Economies of scale are likely always to enable overseas manufacturers to charge significantly lower prices.
- (e) Policy on overseas purchase is not clear. Not only does BRB purchase all its rolling stock from BREL, but only 1 per cent of BREL's purchases of materials in 1981 were from manufacturers outside the UK. (This compares with just under 3 per cent for the BRB as a whole.) These figures appear inconsistent with BRB's declared policy of purchasing abroad where this is commercially advantageous.
- (f) So long as BREL has a monopoly in the supply of new rolling stock to BRB, BREL's efficiency compared with other manufacturers cannot be judged, and the benefits of world-wide competition are lost. We have not been able to examine the scope for alternative sourcing in the longer term, but we are aware of strong interest among some manufacturers—in particular, private wagon manufacturers—in obtaining a larger share in the market.

## Options

7.28 We have considered how far the problems identified above might be relieved by structural change.

7.29 In our eyes, the main problem relates to capacity. Unless BRB are prepared to treat BREL on a par with external companies in a position to tender to manufacture its requirements, BREL will face no real competition. But while BREL remains a wholly owned BRB subsidiary, its resources, which can neither be built up nor reduced very rapidly, are likely to be planned on the basis that a great part of the BRB's requirements will be built by BREL. Faced with the costs of such resources BRB are more likely to require their maximum possible utilisation than to seek external competition.

7.30 This situation, in our view, reduces substantially the chances of achieving the aims of the present “arms-length” policy. We have decided therefore, in accordance with our Terms of Reference, to put forward three possible courses for consideration. (We have not attempted to estimate the costs of implementing these options, or their relative costs and benefits):

- *Option I:* The existing relationship between BREL and BRB could cease. This could be achieved by BRB disposing of the share capital of BREL direct to the Government.
- *Option II:* BREL could be ‘privatised’. If this course were followed, the Government should encourage competition in rolling stock manufacture by dividing the relevant parts of BREL’s business, assets and employees between at least two groups or consortia of private sector manufacturing companies. This arrangement would also provide a more flexible structure for improving UK exports. The Government and BRB would also need to consider (a) whether part of BREL’s plant should be retained within BRB in order to ensure adequate repairs capacity; (b) whether some maintenance and repair work might be done more cost effectively if it was contracted out; (c) whether some design capability should be retained by BRB.
- *Option III:* BREL could cease to operate as a separate company and its facilities be reabsorbed into BRB. If this course were adopted, however, it should not amount simply to a change in command structure, but, in our view:
  - (i) No facilities should be retained for building classes of vehicles where purchase from external manufacturers is clearly more cost-effective. Tenders should be sought for all types of new build contracts, and resources for new build should be concentrated on producing vehicles which can be priced competitively.
  - (ii) A complete and detailed review of maintenance and repair facilities should take place to ensure that excess capacity is eliminated. Where more cost-effective, maintenance and repair should be contracted out.
  - (iii) All resources should be planned on conservative estimates of demand. If capacity proves insufficient for BRB’s needs, new build, maintenance and repairs contracts should be placed externally.
  - (iv) No facilities should be retained for private work.

## CHAPTER 8

### INVESTMENT

#### Background

8.1 There are three main categories of rail investment:—“capital investment” (mainly traction and rolling stock), “revenue investment” (mainly signalling renewal and track rationalisation) and “other revenue investment” (mainly track renewal)—the Glossary gives fuller details of the different categories. Important differences lie in the accounting treatment, and whether the investment expenditure comes within the investment ceiling laid down by the Department. Of the different categories of investment above, only “capital investment” is capitalised; other investment expenditure is charged to the profit and loss account in the year in which it is incurred. But both “capital investment” and “revenue investment” come within the investment ceiling. We found the distinctions made it difficult to ensure that data were comparable, and this hindered our analysis. The appropriateness of these conventions is currently being examined by a tripartite working group consisting of the Board, the Department and the Board’s auditors, Peat, Marwick, Mitchell and Co. We trust that this examination will be completed, and any accounting changes implemented, as quickly as possible.

8.2 We have used as wide a definition of investment as possible, but sometimes lack of data has forced us to use a narrower definition. Where we do so, we make this clear.

8.3 Table 8.1 shows the Board’s expenditure on capital and revenue investment in the years 1975–1981 as compared with the investment ceiling.

TABLE 8.1: BRB Investment, 1975–1981

<i>1982 prices</i>	<i>1975 £m</i>	<i>1976 £m</i>	<i>1977 £m</i>	<i>1978 £m</i>	<i>1979 £m</i>	<i>1980 £m</i>	<i>1981 £m</i>
Ceiling (total BRB)	518	513	527	523	523	423	430
Expenditure (total BRB)	516	495	475	500	513	401	333
Expenditure as % of ceiling	100	96	90	96	98	95	77

The figures cover the whole of the Board’s investment expenditure, including non-rail activities. Railway investment accounted typically for about 85–90 per cent of total BRB investment as defined for investment ceiling purposes. The Board’s investment ceiling was effectively held constant in real terms throughout the period. The slight differences in the years 1975–1979 arose because inflation cannot be predicted accurately; the large reduction in 1980 is attributable to the re-classification of Continuous Welded Rail renewal from “revenue investment” to “other revenue investment”, with the result that it was no longer subject to the investment ceiling which was reduced accordingly.

8.4 The Board’s investment since 1975 has consistently fallen short of what they claimed was necessary. Each year (in the Investment and Financing Review) the Board have pointed to the large capital investment requirements of the late 1950s, and argued that as their capital stock would soon be in urgent need of renewal an increased investment programme should be mounted. We note, however, that some of the consequences predicted by the Board if the investment ceiling were not raised did not come about or were subsequently thought acceptable.

8.5 Although the investment ceiling may have been the main constraint on investment in the early part of the period 1975–81, more recently it is deteriorating financial results that have led the Board to cut back investment in order to try to stay within the EFL. Even track and signalling renewal expenditure has been cut so that actual figures have fallen below those shown in the annual Budget, despite the fact that the Board say that a large backlog of work is mounting. In December 1981 the Board imposed a moratorium on all new investment starts. This has resulted in investment expenditure in 1982 being far below the investment ceiling (the current forecast is about £300 million as compared with the ceiling of £430 million).

## BRB's Investment Plans

8.6 The Board consider a substantial increase in investment will be necessary in the next decade. Table 8.2 summarises the Board's investment plans by type of expenditure.

TABLE 8.2: Rail Plan Investment (by type of expenditure) excluding BREL

1982 prices	1982 £m	1983 £m	1984 £m	1985 £m	1986 £m
<i>Capital</i>					
Operational buildings	34	39	40	36	49
Electrification	2	1	4	5	13
Locomotives	18	19	21	28	29
Passenger rolling stock	68	69	53	54	65
Freight rolling stock	16	1	4	4	5
Service vehicles and plant and equipment	10	13	11	10	13
	<u>148</u>	<u>142</u>	<u>133</u>	<u>137</u>	<u>174</u>
<i>Revenue</i>					
Signalling and track rationalisation	70	69	79	97	101
Other infrastructure	39	53	67	69	73
	<u>109</u>	<u>122</u>	<u>146</u>	<u>166</u>	<u>174</u>
Investment ceiling items	<u>257</u>	<u>264</u>	<u>279</u>	<u>303</u>	<u>348</u>
CWR renewal	<u>72</u>	<u>97</u>	<u>107</u>	<u>126</u>	<u>130</u>

8.7 The Board's plans for the period after 1986 until 1992 show rail capital and revenue investment rising to a plateau of around £475 million (in 1982 prices) in 1989. This is about 60 per cent higher than the average annual spend for the period 1982-1986. Investment in CWR is projected to peak at £145 million in 1987 but to tail off to less than half this level by 1992.

8.8 The capital investment plans of the Board can be broken down in a different way, and forecast expenditure attributed to business sectors:

TABLE 8.3: Rail Plan Capital Investment (by business sector)

1982 Prices	1982 £m	1983 £m	1984 £m	1985 £m	1986 £m
Inter-City	40	32	29	29	42
L&SE	58	63	61	59	64
Provincial Services	12	18	11	10	25
	<u>110</u>	<u>113</u>	<u>101</u>	<u>98</u>	<u>131</u>
Total Passenger	110	113	101	98	131
Freight	38	27	31	38	41
Parcels	—	2	1	1	2
	<u>148</u>	<u>142</u>	<u>133</u>	<u>137</u>	<u>174</u>

The following points are of special interest:

- Investment in Inter-City declines in 1982-1985 as investment in rolling stock tapers off. No investment in HSTs is made after 1982, and investment in coaching stock declines from £22 million in 1982 to £12 million in 1985 and £5 million in 1986. In 1986, however, £12 million is planned for investment in the APT.
- Two thirds of L&SE capital investment is in EMUs, in which investment is planned to decline from £42 million in 1982 to £36 million in 1986.
- Investment in Provincial Services is kept at a very low level over the period, though the sector benefits from investment in the other passenger sectors as locomotives and rolling stock are "cascaded" onto minor lines. The principal feature of investment in this sector is a spend of £21 million on DMUs in the period with a peak of £12 million in 1986.
- In the freight sector, investment in locomotives is planned to rise from £18 million in 1982 to £29 million in 1986. Investment in freight wagons (£16 million in 1982) continues thereafter at very low levels, in accordance with the restructuring of the freight business and the Board's policy of encouraging users to purchase their own wagons.

8.9 We have already commented in Chapter 6 on the scope for making savings in expenditure on traction and rolling stock and infrastructure. If these measures were implemented, then the investment aims of the Board could be realised at a lesser cost. We also examined, however, whether the Board's investment aims were realistic, and in particular whether, assuming that the railway was to continue to operate at broadly its present size and level of service, the volume of investment planned by the Board matched the needs of the railway. We concluded for the reasons given below that the Board were over-estimating the need to increase rail investment, although a substantial increase in expenditure on traction and rolling stock would be required to maintain service levels, and increases in certain areas, eg level crossing modernisation, would be positively beneficial to the finances of the railway.

8.10 On the two main items of infrastructure investment—CWR renewal and signalling investment—we suggest that the Board do not need to increase expenditure as much as planned during the period 1983–86. The volume of expenditure on CWR renewal could be held constant at 1981 levels, and the planned increase in signalling renewal and track rationalisation moderated. This could mean the following reductions over Plan forecasts:

TABLE 8.4: Possible Reductions in Volume of Investment Expenditure over Plan Forecasts.

<i>1982 Prices</i>	<i>1983 £m</i>	<i>1984 £m</i>	<i>1985 £m</i>	<i>1986 £m</i>
CWR renewal (net of £5m increased annual expenditure on sleeper renewals)	—	10	29	33
Signalling and track rationalisation	—	5	10	15
	—	15	39	48

These reductions would be offset in part, however, by a possible need to increase expenditure on the renewal of structures.

8.11 We also identified some items of capital equipment in which the Board would need to invest in order to achieve cost savings in infrastructure renewal and maintenance such as new track re-laying and re-ballasting machines capable of operating on the basis of single-track possessions. Investment will also be needed in radio signalling, solid state interlocking signalling systems and automatic route setting if further cost savings are to be achieved.

8.12 The 1982 Rail Plan (October revision) forecasts expenditure of only £4 million a year on level crossing modernisation in the years 1983–86. We suggest that investment in level crossing modernisation should be greatly increased. This type of investment is very profitable, since the cost of replacing manned level crossings with automatic half barriers or automatic open crossings is paid back in as short a time as 2–4 years by reduced operating and maintenance costs. Early returns would also be shown on investment in automatic ticket-issuing machines and automatic revenue collection equipment, and the Board should reach decisions on the designs and make the investment as soon as possible.

8.13 We agree with the Board that investment in traction and rolling stock will need to be increased substantially in the late 1980s if the present level of service is to be maintained. New diesel passenger locomotives will not be required until 1991, but it will be necessary to step up the build of diesel freight locomotives considerably from about 1986. The EMU rolling programme can be continued at roughly its present level of 175 a year, but the new build of DMUs will need to get under way in 1986 and continue through to about 1994.

## Electrification

8.14 The Board's Rail Plan does not allow for any expenditure on main-line electrification. The Select Committee on Transport have reviewed the findings of the joint British Rail/Department of Transport Report on Main-Line Electrification produced in December 1980, and the Secretary of State told us that he did not think it necessary for us to repeat the process. However, for the reasons given in Chapters 2 and 3, we do not consider that the Board will be able to meet all the conditions laid down by the Government for approval of an electrification programme. We conclude, therefore, that the case for main-line electrification will need review in the light of the Committee's findings and the Government's decisions upon them.

## High Investment Railway

8.15 Many of those who gave evidence suggested that the railway could be more cost-effective if investment levels were substantially increased. Investment was seen as the key to improving productivity.

8.16 The Board had already presented their case for increasing investment in their Rail Policy document published in March 1981. This suggested that in the period 1981–1990 annual railway investment should average £680 million a year (1982 prices) or £619 million, excluding the Channel Tunnel but including investment on main-line electrification and links to airports.

8.17 The Board's Rail Policy document did not predict what effect this larger investment programme would have on revenue, annual operating costs or the overall finances of the railway. It said only that "The result will not be full commercial viability over the whole system—the Social Railway will still require substantial customer support from Government and PTEs on a contractual basis—but we could guarantee better value for money and a lower level of Government support than any other comparable European railway".

8.18 The Board did not make it clear, therefore, whether they believed that this increased investment programme would reduce or increase the railway's requirement for revenue support. Others, however, claimed that increasing investment expenditure, and raising quality in certain areas, would produce a more cost-effective railway. We tested that proposition by evaluating a "high investment" Option (see Part II). That Option shows that the improvement that would be secured in operating results would not be sufficient to justify the increased investment.

## Investment Priorities

8.19 The Board should give more thought to the timing of benefits expected from investment schemes. If there is capital rationing and two or more investment projects each showing a positive Net Present Value using a test discount rate of 7 per cent, the discount rate should be increased until the investment finance available matches the projects with a positive net present value. As finance becomes tighter so the test discount rate is raised, putting a greater emphasis on schemes with high returns in the early years. A greater emphasis on schemes showing an early return would generate an earlier improvement in cash flow, and this would in turn make it possible to finance further worthwhile investments. Projects with long pay back periods are clearly more risky, and divert scarce financial resources away from projects that could bring more immediate benefits.

8.20 Although the Board say that in recent years they have been able to invest only in essential renewals, we have some comments on the balance of the Board's investment programme. The Board appear to have given priority to revenue-generating schemes like the Advanced Passenger Train which are inherently risky rather than to cost-saving schemes like level crossing modernisation, the returns on which are high and relatively secure. Although we accept that a large part of the Board's investment programme is bound to be taken up by "essential" renewal expenditure, we noted that a number of optional features are often incorporated in renewal projects. Although that may make good sense in operating terms, that "add-on" investment should be appraised as rigorously as any other investment which has to be justified in financial terms. All non-essential expenditure, including optional aspects of "essential" schemes, should be appraised on a financial basis.

8.21 We think that the Board should give highest priority to investments where (a) the facilities or equipment can no longer be used in their present state (but with any add-on expenditure subjected to rigorous financial appraisal), and (b) substantial efficiency improvements are obtained and rapid payback of invested capital is achieved. Lower priority should be given to investments that provide an enhancement of existing facilities where the economic benefits are dependent on uncertain revenue increases, or are long delayed.

8.22 In spite of their detailed involvement in some investment projects, the Department have exercised little control over the Board's investment priorities. In principle, we think that this is right: it should remain the Board's responsibility to order their investment programme in the most cost-effective way using an agreed evaluation framework and guided by the overall policy objectives laid down by the Secretary of State. Priorities in investment is one of the matters which, we believe, the Department and the Board should consider annually in the context of their discussions on the Rail Plan (see Chapter 10).

## Project Appraisal

8.23 The Board's internal procedures for appraising investment projects require a thorough-going review. Because of what they see as past failings by the Board to appraise projects with sufficient rigour, the Department have become increasingly involved in the detailed appraisal of individual projects. The Department have built up their own expertise in certain fields and, in their own words, have "substituted their own commercial judgment for the Board's". We find this a very worrying trend. The very fact of close



Departmental scrutiny could lead the Board not to appraise projects with sufficient rigour. We think that this is wrong in principle, and that both the Board and Department would gain if the Board improved their own internal consideration of investment projects.

8.24 Rail investment projects are judged internally against two main criteria. The primary criterion used by the Board is that the investment should be economically justified and improve the financial position of the railway. Investments failing this test can, however, be justified if they are essential to the continued, safe operation of the railway. In that case, the secondary criterion is relevant. This requires that the investment should be shown to be better than all practical alternatives to achieve the objective.

8.25 Given the continuation of a non-commercial railway, these basic criteria are sensible. However, there are several ways in which their application could be improved.

8.26 First, the over-optimism that at times has characterised the Board's planning system has also been present in the Board's investment appraisal. The Department supplied us with details of a number of projects which were modified when the assumptions underlying investment proposals were challenged. Increases in revenue have been over-estimated, and costs, especially maintenance costs, have been under-estimated. Some of the measures that we suggest to improve project control (see paragraphs 8.35–36) should help to secure more realistic appraisal of projects, but we suggest that the Board should also review their own internal procedures so that the key assumptions are brought out more clearly and more critical judgments are brought to bear on them. It is essential in our view that the sponsors of an investment scheme should have to defend the assumptions and judgments that they have made. This could require some strengthening—in powers and in staff resources—of the Board's central investment control section.

8.27 Second, as we have already noted, care must be taken to ensure that all aspects of "essential renewals" really are essential, and that add-on features, which may have little connection with the original justification, are rigorously appraised.

8.28 Third, where investment is appraised against the "secondary criterion", a wider range of alternatives should be considered. At present, management hardly ever seems to consider the alternatives of disinvestment, perhaps because of the 1974 PSO Direction. But that Direction should not inhibit the Board from looking at the case for getting out of certain activities which are not profitable and cannot be justified on social grounds. Losses had reached a very high level (£40 million a year on a £40 million turnover) before the Board decided to get out of the "collect and deliver" parcels business. (We note that Motorail services continue to make losses). But even where a decision has already been taken in principle that a non-commercial service should be retained, there is a case for evaluating a wider range of alternatives. In some cases the alternatives examined seemed to be only slight variations of the proposed investment project.

8.29 More attention should be paid to life-time costs. It was not always apparent to us that the full life-time costs associated with an investment had been taken into account. For example, the decision to build freight wagons with 25-ton axle loadings was taken without regard for the impact that heavier vehicles would have on track costs.

8.30 Decisions between the options of life-extension or investment in new rolling stock have not been securely based, due to lack of data on life-time maintenance costs. We understand that the Board are seeking to remedy this deficiency, but it will be some time before this will show results.

8.31 As already noted, investment proposals are now being examined critically by the new Sector Directors. This is encouraging. Sector Directors, with their responsibility for the bottom line results of their sector, have the necessary motivation to make realistic judgments on investment proposals. We consider that no major railway investment should be undertaken unless it is supported by the relevant Sector Director or Directors.

8.32 If these suggestions are acted upon, we think it should be possible for the Department gradually to withdraw from detailed involvement in investment projects. The Department will still need to be able to satisfy itself that the Board are using proper appraisal procedures. This could best be done by setting up an established and agreed framework for the appraisal of schemes. Some progress has already been made in this direction with recent Board proposals for Inter-City traction and rolling stock. The Department should still be able to call in schemes over a certain size (the present limit is £5 million, and schemes over £5 million account for about 75 per cent of the investment programme), but as the Board improve their own appraisals it should increasingly be less necessary for the Department to examine the Board's investment submissions in detail. The critical assumptions, having been subjected to rigorous internal scrutiny within the Board, would then be less subject to argument with the Department (so that delays in decision-taking should be minimised).



8.33 There is perhaps one exception to the Department's withdrawal from detailed scrutiny of investment projects. The Department have not been in a position to submit investment on track and signalling renewals to the same rigorous appraisal as investment in traction and rolling stock. The Department should consider how to improve its ability to appraise engineering investment.

8.34 In their evidence to us the Treasury said that they would like to see some individual rail investment projects. Given the size of the Board's external financing requirement, we agree that the Treasury should be satisfied that the Board's investment procedures and techniques are appropriate, but think that it would be unnecessary duplication for the Treasury to examine individual projects, other than in exceptional cases.

#### **Project Control**

8.35 Tight project control by the Board is as important as rigorous investment appraisal. It would do much to secure rigorous appraisal of investment if it was known that projects were to be closely monitored and controlled, with the investment sponsors accountable for every deviation from investment assumptions.

8.36 We have two main suggestions. First, as a project proceeds there should be timely and comprehensive reporting of costs incurred and estimated final costs. If cost over-runs are not identified quickly and corrective action taken, final costs may prove to be higher than can be justified financially. Second, a substantial programme of backchecks should be carried out to compare actual costs and revenues with those estimated at the outset. This would provide important lessons for future project appraisal, and could be a valuable discipline on those who sponsor investment projects. We suggest that the Board consider submitting to backchecks all projects over a certain size (say £10 million), and also smaller projects of an unusual nature. We are well aware that this would require some increase in staff, but think that the benefits could outweigh the additional cost.

#### **Scope for Private Capital**

8.37 We received evidence from the Department about the considerable amount of effort and ingenuity that had been put into devising schemes to introduce private capital into rail investment. We came reluctantly to the conclusion that with private sector investors seeking guaranteed returns, and the Treasury ruling that any form of guarantee means that the investment still comes within the Public Sector Borrowing Requirement, prospects for introducing private capital into rail investment do not look hopeful. In our view, it would be as well to plan on the basis that most—if not all—rail investment will continue to have to be financed by public sector funds.

## CHAPTER 9

### MANAGEMENT, MANPOWER AND INFORMATION

9.1 The railway's activities are diverse and geographically widespread. Structuring its management, therefore, presents difficult and complex problems. To improve the structure is, in our view, essential to improving the railway's finances.

9.2 There has been an important development to that end in 1982. In January, the Board appointed five "sector directors", one each for the Inter-City, L&SE, Provincial, Freight and Parcels sectors. They report direct to the Chief Executive (Railways). Each director is intended to be responsible for the financial results of his sector. He is concerned with both the revenues and the costs of his sector, bringing them together in a way which has not been done before, below the level of the Chief Executive (Railways) and of the Board itself.

9.3 We wholeheartedly commend the sector director concept, though it is too soon to judge the success of its application. We doubt, however, if it can achieve its potential without further adjustments to the management structure designed to give sector directors the authority they will require if they are to have genuine "bottom line" responsibility for their businesses.

9.4 At present, the three streams of senior management—sector directors, regional general managers and functional chief officers—are of broadly equal status. The allocation of responsibility between them is diffuse and there is no clear line of authority and accountability. Disagreements can be resolved only by agreement between them or by the Chief Executive (Railways).

9.5 We do not believe the sector director concept will be able to develop to full advantage under these arrangements. The Board's aim is to achieve the integrated direction of business planning, marketing, operations and engineering at a lower level than that of the Chief Executive (Railways). In our view, this aim will not be secured satisfactorily unless the sector directors are given further authority. We think that, in private industry terms, the sector directors should be regarded as managing directors of subsidiary companies.

9.6 We attach particular importance to the full integration of the engineering function within these arrangements. Some engineering decisions in recent years have been taken without adequate concern for or knowledge about their financial effects on business results. For example, we understand that the likely effect on track costs was not evaluated before it was decided to introduce 125 mph trains. We also understand that some new signalling schemes have been designed to meet the operators' requirements without a thorough joint examination by the operators and engineers of the options for less costly schemes that would give adequate performance.

9.7 The need to evaluate the likely effect of a variety of engineering and operating options on the overall financial results of the rail business reinforces the need for a clearer command structure. In our view, sector directors should be given sufficient authority, under the Chief Executive (Railways), to take the decisions necessary to fulfil their responsibility for the financial results of their businesses.

#### Labour Productivity and Manpower Requirements

9.8 Two indicators of trends in railway productivity and two indicators of productivity growth in the economy as a whole since 1975 are given in Table 9.1.

TABLE 9.1: Manpower Productivity Indicators<sup>1</sup>, 1975–1981

Indicator	1975	1976	1977	1978	1979	1980	1981
Passenger miles/freight net tonne miles/tonnes (parcels) per employee <sup>2</sup>	100	97	99	103	105	102	102
Loaded train miles per train crew member	100	100	102	102	101	103	107
Output per person employed in the UK economy	100	103	105	108	110	109	112
Output per person employed in the UK economy excluding oil and gas	100	102	104	106	107	106	107

#### Notes:

<sup>1</sup> This table is based on material provided by the Board and the Department of Transport.

<sup>2</sup> Calculated using a weighted index of output which takes account of changes in passenger miles, freight net tonne miles and tonnes (parcels). The weights relate to revenues in 1975.

9.9 As the table above illustrates, there appears to be ample scope for further improvements if the “efficient railway” of our terms of reference is to be achieved. Where manpower savings are concerned, we recognise that associated costs, which we are not in a position to evaluate, may be incurred.

9.10 The size of the workforce has contracted very substantially—by over 250,000 in the last 20 years. The Board are committed to a substantial programme of further manpower savings by the end of 1986. Table 9.2 shows the manpower reductions forecast in the 1982 Rail Plan (October Revision).

TABLE 9.2: Manpower Forecasts, 1982 Rail Plan (October Revision)<sup>1, 2</sup>

<i>End of Year</i>	<i>Established Posts</i>		<i>Actual Manpower</i>	
	<i>Numbers</i>	<i>Cumulative Reduction</i>	<i>Numbers</i>	<i>Cumulative Reduction</i>
1981	184,700		170,300	
1982	173,300	11,400	162,300	8,000
1983	166,500	18,200	158,300	12,000
1984	161,600	23,100	155,700	14,600
1985	159,600	25,100	153,800	16,500
1986	157,300	27,400	151,300	19,000

Notes:

<sup>1</sup> These figures relate to both the “opportunity” and the “more cautious” levels of forecast.

<sup>2</sup> The figures are for railway employees only. They exclude the subsidiaries, such as BREL.

9.11 In “Opportunity for Change”, which was published in 1976, the Board stated their objective of reducing the railway workforce to 150,000 by the end of 1981—20,000 less than the numbers employed at the end of last year and less than the 1982 Rail Plan forecasts for the end of 1986.

9.12 The Board are, however, currently developing initiatives which would have the effect of reducing staff by about a further 14,000 posts by the end of 1986. This would reduce the railway’s actual workforce to around 140,000. The further initiatives were not included in the October Revision because they were not yet supported by action plans. We understand that it is the Board’s intention to produce action plans based on the initiatives in time for the results to be included in the 1983 Plan.

9.13 We make the following observations and suggestions:

- (a) The Board should do their utmost to achieve the manpower savings mentioned above. We consider there may be scope for more (see Chapter 12). We recognise, however, that the size of the intended savings is large and will place strains on industrial relations.
- (b) The financial benefits from these savings will be substantial. A one per cent reduction in the present wage bill improves the railway’s finances by about £14 million. It will be for the management and unions to negotiate how the benefits of the savings are reflected in wages. But, in our view, some of the benefit should go to customers and the taxpayer (on whose financial support the railway is heavily dependent).
- (c) The Secretary of State has made specific allowance (£33 million) for the transitional costs of redundancies in increasing the 1982 PSO grant figure and the EFL for 1982/83. We suggest that allowance for these costs should continue to be made in future. In this way, the Secretary of State could provide material assistance to help the Board achieve the manpower savings.

### Delivering Change

9.14 Plans and schemes are of little value unless they are translated into action. We suggest the following measures would help ensure that planned change is delivered:

- (a) Well defined management targets should be set, with the responsibility for achieving them clearly attached to individual managers.
- (b) Promotion and continuance in post should be related and seen to be related to performance. Success should be rewarded and failure penalised.
- (c) The merit pay scheme for senior managers should be reviewed to ensure the existence of real financial performance incentives.
- (d) Management information systems should be speedily improved. We believe there are serious deficiencies in the railway’s existing information systems and we discuss them in the next section of this Chapter.

### Information Systems

9.15 In the course of our Review, we have found widespread confusion over which data should be collected and for what purpose. Some key information is not collected at all; other data are collected but not then used. We have also found significant variations between the practices of different regions, which hinder comparative measures of efficiency.

9.16 The Board themselves are aware of weaknesses in their information systems. To assist them in their task we set out in the following paragraphs deficiencies which our consultants have identified, and our suggestions for improvement. Two areas have caused us particular concern: engineering and manpower.

9.17 *Engineering Data:* the poor quality of the information collected inhibits effective control and the proper assessment of proposals affecting engineering costs. For example:

- (a) No records are maintained of the nature or cost of manpower, equipment and materials used for each section of track renewal. The capital costs of equipment are not reflected in the sums charged to regions. Renewal costs can be assessed, therefore, only on an aggregated basis.
- (b) Specific records of the activity of track maintenance gangs are not kept. The actual costs of work carried out can be assessed, therefore, only at divisional level.
- (c) The cost of signalling renewal where it is carried out by BRB staff is recorded by type of work and location but stored only by type of work. The costs attributable to particular locations are thus not monitored.
- (d) Data on the time spent and materials used in maintaining particular types of signalling, or of signalling on particular route sections, is not recorded. No work to develop unit costs from actual maintenance data has been attempted since 1969.
- (e) Data collected on vehicle maintenance does not allow information to be derived for individual vehicles or for particular tasks. There is wide variation in the practice of recording data on vehicle classes, and the information is dependent on arbitrary allocation procedures.
- (f) Little use is made of the data available on vehicle maintenance. No comparisons, for example, are made of the relative efficiency of depots.

9.18 These deficiencies require urgent remedy. The introduction of computer-based record-keeping and analysis systems must be expedited, although doing so will involve an increase in expenditure. In introducing such systems, attention should be paid to securing consistency between regions and between different areas of engineering: in particular, data on track and signalling should be collected so far as possible in a consistent form.

9.19 *Manpower Data:* staff numbers, wages and manpower productivity are closely inter-related. This does not appear to be reflected in the way the Board assemble, analyse and use information on manpower. For example:

- (a) We were unable to obtain clear and satisfactory estimates of the *net* financial savings from planned productivity measures.
- (b) We have doubts about the accuracy of the estimated staff costs in the October Revision of the 1982 Rail Plan. They are based on an allocation of working expenses, not on planned manpower levels in 1984–86.
- (c) Data are collected on both established posts and actual manpower numbers. Actual manpower numbers determine costs, but we think there has been a tendency to focus on established posts in preparing Plans.

9.20 Improvements in the collection, analysis and use of data about manpower are essential and should be introduced quickly.

### **Computerisation**

9.21 Management information can be improved in engineering, manpower and other fields by more extensive use of computers. The Board have plans to develop the use of computers, but progress has been slow. We suggest that large management groups should have responsibility for their own computing costs, and should be free to decide between using the BRB's own computer services and those of outside bureaux and software houses.

9.22 Areas where we consider that the use of computers needs urgent development are:

- (a) Track renewal: the existing TRACKIS program should be developed to retain records of work carried out by section.
- (b) Track maintenance: work should be recorded by section. Work on the development of SAFGABS to allow the categorisation of track for cost and work allocation purposes into sixteen rather than five categories should be expedited.
- (c) Signalling renewal and maintenance: the SATIS suite of programs should be developed to allow accurate recording of data.
- (d) The "Cost of Ownership Data Bank" (or a program designed to record similar information on vehicle maintenance costs) should be installed urgently.
- (e) Computer-aided pathing and timing of trains requires introduction and development to produce new time-tables faster.

9.23 There are also existing programs that do not appear to be used to their full potential (eg the GATTS program, which is available for modelling infrastructure provision).

### Cost Allocation Systems

9.24 The adequacy of information systems is directly relevant to the allocation of costs and revenue between business sectors. There are two reasons for allocating costs and revenues to sectors. It is necessary to the separation of the business into parts for the purposes of management control, and it is required for the calculation of grant and the setting of financial targets for the businesses.

9.25 Expenditure on infrastructure and administration accounts for about 40 per cent of the total costs of running the railway. Much of this expenditure is not incurred solely for the benefit of any particular business. A signalling scheme, for example, may guide freight, Inter-City and provincial trains, and the cost of the scheme will be determined more by the planned combination of scheduled trains than by the trains of any one sector.

9.26 There is no uniquely "right" system for allocating these shared costs between parts of the business. The allocation systems adopted must depend on the priorities and policy objectives of those controlling it. Nor will any particular allocation system necessarily be helpful for decisions unrelated to its purpose.

9.27 When the Government decided in 1974 that subsidy should be payable only to the passenger business, conventions were agreed between the Department and the Board to determine how costs should be allocated between passenger and non-passenger businesses. The conventions, which remain in force, provide that the non-passenger business should be charged its direct operating costs and its "avoidable" joint costs. Thus, if the non-passenger business is the sole user of a particular section of route it is charged the whole cost: if it shares a route with the passenger business, it is charged with the costs that would be avoided if it ceased to use the route entirely.

9.28 Given the need for a convention allocating costs to the non-passenger business, and the fact that no particular convention is necessarily "right", we consider that the avoidable costs principle, if properly applied, provides a reasonable and acceptable method.

9.29 With the introduction of sector management, the need has arisen to allocate infrastructure costs between the passenger sectors. The Board have developed, therefore, a system of "prime user" costing. The conventions for charging the non-passenger business and the similar conventions which have been developed for calculating the PTEs' payments have not been changed, but in allocating costs between Inter-City, L&SE and provincial sectors the Board have decided:

- (a) To select, for each route section, the sector to be deemed the "prime user".
- (b) To charge the prime user with the whole cost less any part that is avoidable to one of the other sectors where joint use occurs.
- (c) To charge those sectors which are not prime users their avoidable costs.

We consider these conventions to be sound.

9.30 But the rules for applying them in practice leave much to be desired. Avoidable and prime user costing involve judgments, often made at quite low level, on what might be achieved in hypothetical circumstances (eg the exact circumstances in which a two-track route might be singled). The existing rules allow regional and local variations, and leave room for unproductive arguments between sector directors, between the Department and the Board and between the Board and PTEs. The rules should be reviewed to make them clearer and more consistent.

9.31 From 1984 the Board's methods of allocating track costs between sectors are to be altered to take account of more specific guidelines on the standards to which different sections of track should be maintained. The reallocation will be significant, but the amounts involved cannot be estimated reliably until the necessary changes to the Board's computer program which allocates costs (SAFGABS) have been made. The Board have suggested that the amount reallocated to the freight business (and "saved" to the passenger business) could be £20–25 million; our consultants (TM) using a different method estimate that the increased charge to the freight business should be £30–35 million.

9.32 This change in track cost allocation has been under consideration for some eight years. Until it is introduced, the costs allocated to different businesses will not reflect the best possible estimate of the costs actually incurred by the sectors. In particular, the costs which are charged to the passenger business and taken into account in the calculation of grant will be significantly over-estimated.

9.33 The Board should ensure that their program is altered as soon as possible, and that the detailed changes made represent accurately the best available information on the causes of track wear.

## CHAPTER 10

### RELATIONS BETWEEN THE DEPARTMENT AND THE BOARD

10.1 The relations between nationalised industries and their sponsoring departments are inevitably complex. Comparisons with the private sector are generally not helpful. In particular, nationalised industries cannot go into liquidation. The threat of bankruptcy, which provides a sharp financial discipline for private sector businesses, is absent. The controls exercised by sponsoring Ministers include mechanisms which are intended to serve as proxies for the normal commercial disciplines, but which are not as powerful.

10.2 The Secretary of State, in order to discharge his accountability to Parliament, needs to be able, within the relevant statutes, to satisfy himself as to:

- (a) The financial prospects of the railway.
- (b) The railway's ability to play an appropriate role within his overall transport policies, and within the Government's wider policies, including their macro-economic objectives.
- (c) The efficiency with which the railway is being operated, particularly in achieving "value for money" from the public resources (investment and grant) made available to it.
- (d) The use by the railway of those resources for the purposes they were allocated.
- (e) The grounds for, and the propriety of, borrowing by the BRB for railway purposes.

10.3 Transport Ministers have not always been able to satisfy themselves on all these counts—notably (a) and (c)—despite frequent involvement of the Department in detailed matters. We believe that since 1974 there have been two main reasons:

- The railway's failure to achieve financial performance consistent with the Board's plans and the financial targets set by Ministers.
- Some inconsistency and lack of clarity in the specification of Ministerial policies for the railway.

10.4 The financial regime established at the time of the Railways Act 1974 was based on the assumption that the Board's own Rail Plans would be the primary mechanism for discussions between the Department and the BRB. The inadequacies of successive Plans meant that the focus had to shift to ad hoc business strategy studies and, more recently, to the Budget.

10.5 Table 10.1 illustrates the disparity between the Plans produced by BRB in the past and the actual financial results of the freight and parcels, and passenger businesses.

TABLE 10.1: Comparison of Plan Forecasts and Actual Results

1982 Prices	1976	Freight and Parcels <sup>1</sup>		1979	1980	1981	1982
		1977	1978				
Third Rail Plan (Autumn 1974)	(9)	9	3	35	58	67	—
Special Autumn Rail Plan 1977 (Autumn 1976)	—	(30)	14	56	81	93	133
Corporate Plan 1978 (Autumn 1977)	—	—	11	26	80	114	148
Corporate Review 1980 (Autumn 1979)	—	—	—	3	6	45	67
Corporate Plan 1981 (Autumn 1980)	—	—	—	—	(52)	(18)	43
Actual Profit/(Loss)	(54)	(9)	(3)	(1)	(60)	3	(21) <sup>4</sup>

1982 Prices	Passenger Business—PSO and PTE Support Requirement <sup>2</sup>						
	1976	1977	1978	1979	1980	1981	1982
Third Rail Plan (Autumn 1974) <sup>3</sup>	837	893	974	901	925	968	—
Special Autumn Rail Plan 1977 (Autumn 1976) <sup>3</sup>	—	659	611	605	578	587	621
Corporate Plan 1978 (Autumn 1977)	—	—	711	717	703	724	714
Corporate Review 1980 (Autumn 1979)	—	—	—	717	730	801	794
Corporate Plan 1981 (Autumn 1980)	—	—	—	—	793	730	754
Actual Deficit <sup>4</sup>	644	611	694	750	794	902	1,062 <sup>4</sup>

**Notes:**

<sup>1</sup> Profit or loss before payment of freight transitional grants, but after payment of level crossings grant.

<sup>2</sup> Deficit before PSO grant, SRA and PTE payments, but after payment of level crossings grant.

<sup>3</sup> The Third Rail Plan and the Special Autumn Rail Plan 1977 did not include estimates of additional depreciation to balance the Special Replacement Allowance introduced in 1978.

<sup>4</sup> Estimated 1982 figures.

10.6 The Board's Plans have tended to be over-optimistic about both costs and revenues. Moreover, during the last two or three years the Board have not succeeded in reducing costs proportionately when their revenue fell. This is illustrated by Table 10.2.

TABLE 10.2 Index of Railway Financial Results, 1975-1982 (1975=100)

	1975	1976	1977	1978	1979	1980	1981	1982 <sup>1</sup>
Railway revenue	100	104	106	109	109	105	100	84
Railway expenses	100	96	95	99	101	102	101	96

Note:

<sup>1</sup> Estimated 1982 figures.

10.7 Deficiencies in the BRB's data collection systems have also led to the Department trying to build up its own data base and expertise in matters which might be expected to be the concern of the Board alone.

10.8 Investment appraisal furnishes a good example of this process. The Department has been deeply involved in the detailed examination of such projects as the programmes for the construction of new sleeper cars, electrical multiple units, and HST sets. In each of these cases, the Department was able to demonstrate scope for major savings. The Board acknowledged the good sense shown by the Department, but it cannot be satisfactory for the Department to have to substitute its commercial judgment for the Board's in this way. It blurs the lines of accountability and draws the Department deep into matters with which a great industry should be competent to deal.

10.9 In paragraph 10.3, we suggested that there have been some inconsistencies in Transport Ministers' policies for the railway and lack of clarity in their specification. On the one hand, successive Ministers since 1974 have laid down as policy objectives that:

- The freight business and Inter-City should not be subsidised and should become "fully commercial".
- The level of PSO grant should remain constant in real terms and, if possible, be reduced.

On the other hand, however:

- Ministers have stipulated that there should be no substantial cuts in the size of the railway network.
- The PSO Direction (general in terms though it admittedly is) has remained unchanged since 1974, despite alterations in passenger services, and in other areas of transport policy (eg those introduced by the Transport Act 1980).
- The Board have been given to understand that the Secretary of State would not want commuter fares to increase faster than the rate of general inflation.
- Specific Ministerial objectives for the L&SE sector exist only in draft and there are none for the Provincial sector.

10.10 We have become familiar in the course of this review with two conflicting arguments. One side, the BRB, have argued that the Department's policies are inconsistent with each other. If, their argument goes, the whole of the passenger system is to be maintained indefinitely so as to provide a public service "generally comparable" with that provided in 1974; if commuter fares are not to be increased materially in real terms; and if assets (particularly traction vehicles and rolling stock) are to be maintained and replaced in an acceptable form, then more grant and more investment will be required. The Department, for their part, have argued that there is substantial scope for improved efficiency and other cost saving measures; that the PSO Direction has not been made more exacting; and that the Board's case for increased grant and investment has not been substantiated.

10.11 A debate conducted from such different standpoints is unlikely to produce satisfactory answers. We are in no doubt that the relationship between the Department and the Board needs to be changed and improved. The changes we suggest—which would not, so far as we can judge, require legislation—are as follows.

10.12 The Board should take the following action:

- (a) Achieve improvements in the rail planning process and in matching performance to plans.
- (b) Develop computerised systems for the collection and use of the information required for effective financial control and management.



- (c) Improve the arrangements for drawing up the railway's investment programme, for ranking projects in order of priority, and for project appraisal.
- (d) Apply systematically back-checks to all projects involving substantial expenditure.
- (e) Develop a strong central capability, backed up by the authority of the Board itself, and charged with the job of subjecting all major expenditure proposals to rigorous analysis and, if necessary, challenge.
- (f) Commit themselves firmly to the development of sector management.

10.13 The Department, for its part, should take the following action:

- (a) Specify clearly the Secretary of State's policies and objectives for the railway and ensure that this guidance is kept up-to-date.
- (b) Gradually shift the emphasis in its dealing with the Board away from detail and the short term and towards policy and the long term.
- (c) Agree with the Board new and effective arrangements for monitoring the railway's performance against the Board's own plans and the targets set for them by the Secretary of State.

10.14 *Greater Specification:* We suggest that the Secretary of State, in the light of his consideration of this report, should set out publicly his policies for the railway, including his intentions on:

- The extent of the rail network (looking at least ten years ahead).
- Strategic objectives for each of the railway sectors.
- Financial support for the railway and the rationale for providing it.

We also suggest that the Secretary of State should issue a new PSO Direction, reflecting his policies and intentions for the passenger system. (Chapter 11 discusses the possibilities for the formulation of the Direction and for grant mechanisms.)

10.15 *Shift in Emphasis:* In the light of such a statement of policy by the Secretary of State, the Department should:

- Concentrate, in their dealings with the Board, on the Rail Plan and the Investment and Financing Review.
- Commission, from time to time, studies on major long-term issues with significant implications for the railway's financial results extending beyond the period of any one Rail Plan.
- Ensure that suitable professional expertise, especially in the fields of engineering and operational research, is available to, or within, the Department to advise on the Board's progress.

10.16 *Monitoring:* Both the Board and the Secretary of State need to be able to satisfy themselves whether railway performance is matching plans and the defined targets and, if it is not, what the reasons are. *Effective and economical monitoring arrangements* will, therefore, be required. The aim should be to provide a common understanding and to reduce progressively the Department's involvement in detail. It is essential that the Department and the Board should agree what information should be collected, the purposes for which it should be used, the methods for analysing it and the arrangements for reporting, examining and taking action on it. The monitoring arrangements should, on the one hand, satisfy the proper requirements of the Secretary of State (outlined in paragraph 10.2) and, on the other, reflect the management responsibility of the Board and the need progressively to reduce Departmental involvement in detail.

10.17 It appears to us that the Board's main statutory duties (quoted at the beginning of Chapter 1) remain apt and are an impediment neither to the railway's performance nor to the relationship between the Board and the Department.

10.18 It would, however, be advantageous if in future the Board were to produce their accounts and plans on the basis of the financial year rather than the calendar year, so that their period of account coincided with that of the Government.

10.19 We repeat that the relations between a nationalised industry and its sponsor department are bound to be complex. Inevitably, there will be occasions on which there is a conflict of opinion between them. We believe that the measures we have suggested—which would take time to introduce and develop—should reduce the risks of disagreement between the Secretary of State and the Board. But if there should be a fundamental disagreement, we consider that the Secretary of State should require the Board to act in accordance with his judgment and should explain publicly the reasons for this decision.



## CHAPTER 11

### GRANT MECHANISMS

11.1 The present grant system involves the payment of grant direct to the railway. But it would also be possible for the Secretary of State to pay grant to railway users. This Chapter examines both possibilities in relation to the following general criteria. Grant systems:

- should provide enough money for the purpose of grant to be achieved;
- should allow the public to see clearly what is being provided for the grant;
- should use costs that are clearly identifiable and reasonably predictable, so that Ministers are aware of how much the achievement of their objectives will cost, and so that checks can be made to ensure the grant is being used for the purposes intended;
- should provide incentives for more efficient operations;
- should be compatible with the Secretary of State's accountability to Parliament;
- should be consistent with the Government's policies for the railway and with their general policies;
- should not blur the responsibilities of the Government or the Board.

11.2 As indicated in paragraph 10.4, we consider that the Secretary of State should set out publicly the underlying reasons (eg social, economic or environmental) for paying grant. In the light of those reasons, he might wish to specify that the grant should be directed to particular:

- services;
- rail businesses, sectors or parts thereof;
- groups of travellers;
- purposes, such as investment or operations.

Our main concern in this Chapter is with the first three of these possibilities. The fourth, special purpose grants, is considered in Annex E, which also discusses briefly the suggestion put to us in some evidence that there should be a separate Infrastructure Authority.

#### **Grant for Individual Services or Business Sectors**

11.3 The payment of grants to railway undertakings is subject to EEC law, which is binding on the United Kingdom. It is open to the Secretary of State, if he wishes to provide financial support, to pay it under one or more of a variety of EEC legislative instruments. Since 1975, the bulk of the support for the rail passenger system has been paid under EEC Regulation 1191/69.

11.4 Under the Regulation, the Secretary of State may impose Public Service Obligations on the Board (and is required to compensate them for compliance). He could impose one or more Obligations, depending on whether he wished to direct the "compensation" (grant) to particular services (or groups of services), to particular rail business sectors, or to a larger part of the railway.

11.5 To specify the Obligation in terms of individual services (or groups of them) would, in effect, be to return to the grant system operated between 1968-74 under section 39 of the Transport Act 1968 (see paragraphs 1.5 and 1.6 above). That approach seems to us suitable only if the number of services to be grant-aided is small. It necessarily requires detailed allocations of indirect costs (administration, infrastructure, depreciation and corporate expenses such as interest) between individual services. No cost-allocation system so far devised is capable of allocating these costs in a way that is not open to misinterpretation. Moreover, in order to satisfy the requirements of accountability, the Department would need to enquire in great detail not only into the annual allocated costs and revenues of the services but also into matters of day-to-day management (as was the experience under section 39 grant arrangements).

11.6 Another possibility would be to impose separate Obligations on the whole, or on parts, of one or more rail business sectors, paying grant separately under each Obligation. But, in our view, the Board should have some latitude to "vire" grant between the supported sectors. This is necessary because the sectors are primarily management and marketing units. The performance of one sector can affect the performance of others and decisions on the operation of one group of services can have significant repercussions for the operation of others. Moreover, there are still problems about the allocation of costs between sectors.

11.7 We conclude, therefore, that if support is to be provided for more than one sector, there should be only one Public Service Obligation and that grant should be paid in respect of all that part of the railway which is to be supported. That would not prevent the Secretary of State from reaching agreement

with the Board on how much of the grant should be “earmarked” for particular groups of services or sectors, or from setting separate financial targets for various parts of the business. The estimated grant requirements of each sector to be supported would be known from the Board’s Budget. But the Board should be able, we consider, to vary the amounts of grant actually applied to each of the supported sectors during the grant year.

11.8 We also suggest that the grant procedures should be revised along the following lines (which are consistent with the criteria listed in paragraph 11.1):

- (a) Each Direction imposing a Public Service Obligation should apply for a specified period of, say, five years. It would then be reviewed to ensure that a thorough examination of the justification for the Obligation and policies underlying it were subjected to regular scrutiny.
- (b) Whenever a PSO Direction is made, a Command Paper should be published setting out the Government’s policies and strategies covering the role of the railway in public transport, objectives for the business sectors, the extent of the network to be supported or excluded from support, and guidance on closure policy. This statement would provide the reference point to which the Direction would be related.
- (c) The Direction itself (and the Command Paper suggested in (b)) should be drafted in terms of broad objectives and targets, allowing the Board some latitude to make operational changes which may become necessary in order to meet those broad objectives.
- (d) The grant should be derived from the Board’s Budget and determined annually.
- (e) The Secretary of State should accompany his announcement of each annual grant settlement with:
  - Statements of the assumptions built into the grant settlement as to fares, levels of service, efficiency improvements and investment intentions. Where appropriate these statements would be related to particular sectors or sub-sectors.
  - Statements about the quality objectives (eg reliability, punctuality, cleanliness) and the output objectives (eg train miles related to load factors, labour costs per passenger mile) at which the Board should aim in the year ahead. Where appropriate these statements, too, would be related to particular sectors or sub-sectors.
  - Target PSO grant figures and EFLs for the two years following the grant year immediately in prospect (eg if the statement were made in 1984, target figures for PSO grant would be set for 1985 and 1986). These targets would be based on the Department’s judgment of what the Board should be aiming for in the light of the discussions on the annual update of the Rail Plan.
- (f) The BRB should be required, when submitting their annual claim for grant, to justify to the Secretary of State any significant divergence between the amount claimed and the target announced in the previous year.
- (g) If the supported railway performs better in the course of a year than was forecast in the approved grant claim, the Board should be allowed, as now, to retain a significant proportion of any resulting surplus. We suggest that the Board might use part of the surplus to reward the efforts of the management and staff concerned (for example, additional improvement of staff amenities).

11.9 *Maximisation of weighted passenger miles:* One possibility considered in the evidence we received was that the PSO Direction should include the objective of maximising “weighted passenger miles”. The Board would be set the objective of maximising the number of passenger miles achieved for a given level of grant. Weights might be set so that different types of passenger mile were valued differently (for example, a mile travelled by a passenger on a rural service might be valued differently from a mile travelled by a London commuter).

11.10 A variant of this approach would be to relate the amount of grant paid directly to the number of passenger miles or to the amount of revenue collected by the Board; the more passenger miles or revenue secured by the Board, the larger would be their grant.

11.11 Setting the Board this type of objective would not, however, be sufficient. The Secretary of State would still need to decide how much grant to give the Board in a particular year, and how different kinds of passenger miles should be weighted. Maximisation of weighted passenger miles within a financial constraint does not, in our view, provide guidance which would help Ministers reach decisions on those matters.

### **Grant-Aiding the Traveller**

11.14 Another possibility would be to pass grant direct to those members of society for whom the Government decided that support was required.

11.15 The financial support for the traveller could be given either in cash or in the form of vouchers exchangeable for rail travel. Vouchers might be exchangeable for travel up to a specified value, or for

a particular number of journeys. There could be restrictions on the type of travel for which a voucher might be exchanged (for example, vouchers could be exchangeable only within a particular area, or only for off-peak services).

11.16 It might also be possible to give travel vouchers which could be exchanged not only for rail travel, but for travel on any mode. The view that the travel needs of certain groups of people should be supported does not directly lead to provision of grant for any particular mode.

11.17 We have not sought to study in depth the range of schemes available to provide financial support to travellers. But it appears that such schemes would have some advantages. They would be progressive, and the Government's objectives for grant would be entirely clear. Grant could be specifically directed to those whom the Government considered were in need.

11.18 The objective would be to leave transport undertakings entirely free to operate commercially. Vouchers exchanged by passengers for rail travel would be refundable from central Government at pre-determined rates. Such schemes would not, however, avoid the problems faced by Government and Board when unforeseen losses were incurred.

11.19 In all these schemes, some practical problems would require resolution. For example, safeguards would be required to ensure—at least in the short-term—that public transport remained available in some form to those sections of the community to whom grant had been provided. Safeguards might also be required to ensure that the levels of fares charged, especially on price-inelastic commuter services, were reasonable. In addition, there would need to be safeguards against forgery of vouchers.

## CHAPTER 12

### PLANNING AND THE RAILWAY'S FINANCIAL PROSPECTS WITHIN THE PRESENT FRAMEWORK

12.1 In this Chapter, which draws together many of the comments made earlier in our report, we set out:

- (a) the improvements to the rail planning system that we believe to be necessary;
- (b) our judgment of the railway's likely financial results in 1986, assuming that the railway remains at broadly its present size and continues to operate within the present framework of railway policy;
- (c) an assessment of the railway's likely financial position in 1992, halfway through the 20-year period to which our terms of reference relate, on the assumption set out in (b) above.

#### Rail Planning

12.2 Like any other large organisation, the Board need plans for their own management purposes. They are also required by law, and by Government policy for all nationalised industries, to produce plans for the conduct of their businesses. The work done for the Board and Mr Butler's study for the Secretary of State indicated major weaknesses in the Board's rail planning, including:

- (a) over-optimism;
- (b) inadequate linkage between the first year of Rail Plans and the Budgets for those years;
- (c) insufficient involvement of regional and functional management in the preparation of Plans and a lack of commitment by them to the completed Plans;
- (d) no clear relationships between the forecasts made for a year in one Plan and the forecasts for the same year in subsequent Plans;
- (e) absence of retrospective detailed analysis of actual performance against planned performance.

12.3 In the light of these criticisms, the Board are developing a revised planning system. Devising and implementing a radically new system, and ensuring that it is understood at all levels of management, is a lengthy and complex operation. It could not be completed in time for the 1982 Plan, which has been prepared, therefore, neither on the revised system nor on the old one.

12.4 The time and thought available for preparation of the Plan were severely constrained by the strikes and resultant uncertainties of the summer, but a version was produced and made available to us by the end of August.

12.5 With our consultants' help, we examined the August version of the Plan and identified serious weaknesses in both its methodology and its contents. Our consultants' report on the Plan (August version) was made available to the Board. In October, the Plan was re-run in the light of that report and to take account of some later developments (eg the Board's 32 week outturn). The re-run Plan ("the October Revision") reached us on 1 November 1982.

12.6 We have the following main criticisms of the methodology used to produce both versions of the 1982 Rail Plan:

- (a) The Plan is largely the product of the BRB's headquarters. Sector, regional and functional involvement in its preparation was patchy. We were informed that railway managers are "committed" to the Plan, but their understanding and knowledge of its contents appears uneven.
- (b) The "opportunity" and "more cautious" forecasts lack a clear rationale or definition.
- (c) The Plan is supported neither by adequate sensitivity analysis nor by contingency plans to deal with non-planned but anticipatable events.
- (d) The forecasts for 1984-86 are unsupported by operational data on such matters as route mileage, loaded train miles, passenger miles and load factors. As a result the relationship between the forecasts of costs and revenue cannot be identified.
- (e) Planned staff costs have been calculated from an estimated percentage of total working expenses and not, in general, from planned manpower numbers.
- (f) Parts of the Plan are internally inconsistent. For example, the forecasts of revenue and costs for 1984-86 are based on an extrapolation of the changes made to the 1983 Plan year following the review of the provisional 1983 Budget. There is, however, not necessarily a connection between changes in 1983 and in later years; there may be factors affecting 1984-86 that are not relevant to 1983 and that have not been taken into account in the extrapolations.
- (g) The estimates included in the Plan for BREL costs are open to question because BREL's own plan had not been completed.

12.7 We draw particular attention to the criticism concerning the production of “opportunity” and “more cautious” forecasts (paragraph 12.6(b)). While we appreciate the purpose for which these descriptions were introduced—the avoidance of over-optimism—they are, in our view, misleading. The “opportunity” level represents only what the management are committed to achieving and for which action plans exist. It excludes any initiative to which managers are not already committed. So it is intended to represent not an assessment of *opportunities* which would stretch managers beyond what they are confident of achieving, but rather the managers’ own views of the “*most likely*” outcome. The “more cautious” forecasts are not technically adequate and comprehensive sensitivity tests, but are judgments made at headquarters of some risks that could affect some aspects of the railway’s financial results.

12.8 It is clearly essential that the methodology for rail planning should be agreed between the Board and the Department, and we suggest that they should together pursue improvements in rail planning along the following lines (which, to some extent, we believe the Board are already contemplating):

- (a) There should be one Plan, based on the most likely course of events (with due conservatism about demand assumptions), and fully supported by action plans.
- (b) The Plan should be built up from material produced by sector, regional and functional management. The Sector Directors should play a key role in co-ordinating this material and in ensuring full commitment to the Plan, working in close collaboration with the central planning unit.
- (c) Contingency plans should be prepared so that managers are ready to respond promptly and effectively to unplanned but anticipatable events. For the most part, these plans should be concerned with the action to be taken in the event of revenue shortfall; this is because it is harder for the railway to reduce costs quickly when demand falls than to increase provision if demand increases.
- (d) The conditions for triggering the activation of contingency plans should be specified.
- (e) The Plan should be supported by operational data relevant to the cost and revenue forecasts.

12.9 We wish to stress four points about this guidance. First, since planning is a difficult exercise and the successful establishment of a new system takes time, the Board and the Department should not aim for a sophisticated system from the outset. Improvements and sophistications should be introduced, therefore, only gradually. Sensitivity analysis, so as to indicate the scale of the risks attached to the forecasts in the Plan, should be introduced, however, as soon as the basic methodology is well established.

12.10 Second, we attach great importance to planning resource provision on conservative assumptions about demand so as to minimise financial exposure.

12.11 Third, a Plan prepared on the basis we have outlined would, on its own, still not provide a sufficient spur to innovation and better performance. We suggest, therefore, that the Board should also set managers performance targets that would stretch them beyond the levels incorporated in the Plan. The aim of these targets would be to achieve, for example, planned (or better) revenue at less resource cost or more revenue for no greater resource cost than forecast in the Plan.

12.12 Fourth, the success of the improvements suggested above will depend on the adoption of new attitudes, at all levels within the railway, towards planning, and on effective mechanisms for translating intentions into action and results.

12.13 In our view, better rail planning along the lines we have outlined is a pre-condition not only for improvements in the finances and efficiency of the railway, but also for the development of a more effective relationship between the Department and the Board (see Chapter 10).

### **The Railway’s Financial Performance in 1986**

12.14 Because the second run of the 1982 Rail Plan could not be available to us until 1 November 1982, we have not had time to examine its technical validity in detail. But our examination of it has been sufficient to conclude that the October Revision does not meet satisfactorily all the criticisms made by our consultants of the August Version. Its methodology and preparation suffer from the weaknesses mentioned in paragraph 12.6, and the October Revision cannot, therefore, be regarded as providing a reliable forecast of the railway’s likely financial results up to 1986.

12.15 In arriving at our own assessment of the railway’s financial prospects in 1986 we have had regard to:

- (a) the evidence submitted by the Board, the Department and many others;
- (b) the additional initiatives, not included in the 1982 Rail Plan, that the Board are currently developing;
- (c) our consultants’ (PMM) professional advice, in their reports to us on the August and October versions of the Rail Plan, on the scope for reductions in planned expenditure;
- (d) Mr Goldstein’s professional advice, in the light of the engineering study, on the savings attainable in 1986.

12.16 The revenue of the L&SE sector in 1986 could be increased by a variety of means (eg increased prevention of fraud or an increase in real fares). But there seems little prospect of the revenues of the other passenger sectors being higher than those forecast for 1986 in the 1982 Plan (October Revision—Opportunity Level). We consider there are significant risks—unquantifiable but substantial—to both freight and parcels revenues in 1986. Forecasting the revenues and costs of a business as complex as the railway is difficult, and the margin for error inevitably increases the further ahead the year to which the forecast relates. We consider, however, that the likelihood of the railway achieving lower levels of revenue in 1986 than those shown in the October Revision (Opportunity Level) is significantly greater than that of exceeding the planned levels.

12.17 Where expenditure is concerned, the Board are developing further initiatives, over and above those included in the 1982 Rail Plan, to reduce costs. Most of them were known when the August and October versions of the Plan were being prepared but were not included in either version because they were not supported by action plans. The Board estimate that their further initiatives could result in a reduction of £147 million from the levels of expenditure forecast for the October Revision (Opportunity Level). The Board have told us that they are committed to developing action plans, within the timescale for the preparation of the 1983 Plan, based on these further initiatives.

12.18 In their reports on the August and October versions of the Plan, our consultants (PMM) commented on the additional initiatives then under development. They concluded not only that the scope existed for the economies the Board had in mind but that further cost reductions could be made. Our consultants currently estimate these additional savings to be worth about £40 million, in 1986, resulting mainly from additional manpower economies in Operations, and from reduced levels of traction and rolling stock maintenance.

12.19 Certain areas for possible savings were identified in the Engineering Summary Report prepared for the Committee by TM. We asked Mr Goldstein for his professional judgment of how much of these savings could be achieved by 1986, and he gave us a value of £34 million, on the basis of certain assumptions and qualifications.

12.20 As discussed in paragraph 8.10, we consider that the planned 1986 levels of expenditure on CWR and signalling renewal could be reduced. But we have omitted any element for this from the assessments in this Chapter because we cannot quantify the off-setting investment expenditure mentioned in paragraph 8.11. To that extent, our assessment of the scope for cost reduction may be understated.

12.21 If all the cost reductions and savings mentioned in paragraphs 12.17 to 12.19 were achieved in full, their combined effect would be to reduce the Board's expenditure in 1986 as follows:

- (a) the Board's proposed further initiatives ..... £147 million
- (b) the additional cost reductions and savings outlined in paragraphs 12.18 and 12.19 ..... £74 million

We recognise the difficulties of putting together figures which contain two elements: some which have been estimated against the Board's planned expenditure to 1986, while others are based on the actual amounts spent in 1981. We also stress the need to consider them in conjunction with the qualifications we set out in paragraphs 12.23 and 12.25 below. Nevertheless, we thought it right to attempt to estimate the scope for reductions in the Board's planned expenditure for 1986. We believe the scope to be of the order of £220 million.

12.22 To carry the process a stage further, our consultants (PMM) have produced the following estimates of the effect that a cost reduction of that order might have on the financial results of each of the sectors in 1986:

Inter-City .....	£39 million
L&SE .....	£55 million
Provincial Services .....	£75 million
Total Passenger .....	£169 million
Freight .....	£45 million
Parcels .....	£6 million
Total .....	£220 million

12.23 In arriving at these estimates, no allowance has been made for transitional costs (eg of redundancy), which could be substantial, or for any implications for revenue or for additional investment. Further work to assess these factors would be required.

12.24 The great bulk of the possible cost reductions and savings discussed in paragraphs 12.17–12.19—about £170 million—would benefit the passenger business. This would reduce the level of financial support required in 1986 (ie from the PSO grant and PTE payments) from the £887 million forecast by the Board in the October Revision (Opportunity Level) to £717 million. Assuming that PTEs benefitted by 10 per cent of the cost reductions and that their payments would count for about 10 per cent of the total support requirement, the PSO grant in 1986 would be about £650 million. That amount would be substantially below the level of PSO grant, in real terms, paid in 1975 (ie £757 million in 1982 prices, including an element for the Special Replacement Allowance).

12.25 Accordingly, we consider it to be within the Board's ability to keep their PSO grant requirement for 1986 below the levels of grant in real terms (including the SRA) that Ministers considered appropriate between 1975–1980, provided:

- (a) revenues do not deteriorate significantly below those forecast by the Board;
- (b) the Secretary of State helps the Board to meet the transitional costs (eg of redundancy);
- (c) there is more effective planning, improved delivery of performance against plans, and development of sector management along the lines we have outlined;
- (d) there is clarity of Ministerial policy, resolute commitment by railway management from Board level downwards, and cooperation from the workforce.

12.26 It is more difficult to form a view on the railway's external finance requirement in 1985/86 because it will be affected by a variety of factors, such as assets sales and the level of cost reductions achieved in 1985 as well as in 1986. The Board's forecast at the "more cautious" level of the 1982 Rail Plan (October Revision) is that the external finance requirement for 1985/86 will be about £1,022 million. We estimate that the 1985/86 requirement at the "opportunity" level of the October Revision, would be about £900 million. We judge that if the railway achieves cost reductions on the scale outlined in paragraphs 12.17–12.19, its external finance requirement in 1985/86 might be about £800 million.

12.27 We suggest that work is now urgently required by the Board, in conjunction with the Department where appropriate, to develop the detailed action plans necessary to achieve the cost reductions discussed above and to assess the transitional implications (eg for redundancy costs).

#### **The Railway's Financial Results in 1992**

12.28 Finally, in this Part of our report, we give our assessment of the financial prospects of the railway in 1992, which is halfway through the 20-year period mentioned in our terms of reference, assuming it remains at about its present size and continues to operate within broadly the present framework of railway policy.

12.29 In the course of their work for Part II, our consultants (TM) prepared forecasts of the financial results, and other aspects of the performance, of such a railway in 1992. The assumptions they made are explained in Chapter 13 and the results of the two "Reference Cases" are summarised in Table 14.1. The first Reference Case (R1) indicates that the total passenger deficit (ie including PTE-supported services) would be about £1,000 million in 1992. The assumptions on which that estimate is based do not, however, take full account of the cost reductions summarised in paragraph 12.21. The second Reference Case (R2) assumes a number of efficiency improvements and forecasts a total passenger deficit of about £854 million in 1992.

12.30 Our own assessment is that, while there are further opportunities for improvements in efficiency and for cost reduction that would be attainable by 1992, although not by 1986, there are also likely to be increased requirements for investment in the second half of this decade and in the early years of the next one. On balance we consider (subject to the provisos in paragraph 12.25) that the PSO grant requirement in 1992 is likely to be no greater in real terms than the present level (£837 million in 1982) and that it could be lower.



## PART II

# LONGER-TERM OPTIONS

### PREFACE

1. In this Part of our Report we deal with the longer-term aspects of our Terms of Reference. As a necessary preliminary, we discuss the purpose of travel, and the possible grounds for subsidising it. We then explain in Chapter 13 how we approached the task of developing options for railway networks of different sizes and costs, and outline the methods used by our consultants. In Chapter 14 we describe, with maps, the results of Network Options that we evaluated. In Chapters 15 and 16 we discuss possible amendments in the statutory rail closure procedures, and the introduction of bus services to replace withdrawn rail services.

#### Travel and Subsidy

2. Travel is a means to an end, not an end in itself. Most people travel in order to fulfil specific purposes at their destinations—work, shopping, recreation, visiting friends and so on. It is the achievement of these purposes which provides the “benefit” of travel. For many, travel itself is a “disbenefit”. The less of it, the better. Travel is not a direct demand from the community, therefore, but a derived one. Further, since mechanised transport consumes resources which have to be paid for, there is no “right” to transport in the absence of payment for the resources consumed.

3. Those seeking to justify public transport subsidies often rely on an asserted “need” for transport. Demand is determined by people individually. The concept of need, however, is an elusive one which cannot be defined objectively or without contention.

4. Justifications often advanced for subsidising public transport, and more particularly rail transport, are:

- (i) the travel of certain members of society—for example, the aged, the young and the poor—should be supported. Such a view is consistent with other social security aids, but it does not directly lead to subsidy for any particular mode or undertaking. The way to implement such a policy would be to support the traveller, (eg by free passes or reduced fares) and not the transport undertaking. (We have discussed in Chapter 11 the case for providing support directly to the user rather than the supplier of public transport.)
- (ii) the railway is energy efficient. Both the Department of Transport and the independent Advisory Committee on Energy Conservation have compared the energy efficiency of different modes of transport. Their work demonstrates how far energy efficiency is dependent on the load factors achieved. A car with two passengers, for instance, is considerably less efficient than a train operating with a load factor of 45 per cent, but with 3 or 4 passengers it uses a similar amount of primary energy per passenger-kilometre. With a load factor of 65 per cent, an express motorway coach is about twice as energy-efficient as the train. Moreover, energy requirements for the building of vehicles differ considerably. No one mode, therefore, has any inherent overall advantage, and we see no case on energy grounds for subsidising railways during the next 20 years.
- (iii) “equity” between road and rail. It is sometimes argued that it is unfair that the railways have to pay for their infrastructure costs while road users receive their infrastructure “free”. But as Annex E indicates, road users generally more than meet their track costs. If there is inequity, it is probably in favour of rail.
- (iv) control of inflation or redistribution of income. It is not for us to comment on the desirability of these objectives but we do not believe that rail subsidies are an efficient or effective means of achieving them.

5. A reason for rail subsidy which we decided to take into account in developing one of the Network Options was the avoidance of the congestion costs that would be incurred if rail services in larger cities were withdrawn. The case for subsidising rail commuter services rests on the resource cost of the alternative. If rail commuters were required to pay the full market fare, many of them would be diverted to the roads. The resulting congestion would cause considerable delays to travellers, and the resource cost of this could be greater than the rail subsidy. We recognise the rationale of providing rail subsidies where flows are high and the road system inadequate to carry them, but consider that this is really applicable only in Greater London. The Department advised us that, whereas the 1982 rail strikes created only a little more congestion in provincial conurbations, in Greater London road congestion was significantly increased. *Note*



6. But some caution is needed: the rationale for subsidising rail commuter services in London depends to some extent on other factors which determine the demand for rail travel (eg employment and housing location) remaining unchanged. We have no doubt that in the short term the absence of subsidies for commuter travel would seriously damage London's working as the nation's capital, but know of no conclusive work on the likely long-term effects.

7. The considerations here briefly discussed reinforce our earlier conclusion (see Chapter 10) that the grounds for any future rail subsidies should be clearly stated by the Government. Everybody concerned would then know what benefit the subsidy is intended to achieve, and so be in a position to judge whether the services provided are effective and represent value for money.

## CHAPTER 13

### DEVELOPMENT OF THE OPTIONS

13.1 Our terms of reference included a requirement to report on “options for alternative policies, and their related objectives, designed to secure improved financial results in an efficiently run railway in Great Britain over the next twenty years”. If substantial reductions in the cost of the railway to the taxpayer are required, major changes in the size of the railway will be necessary. Because of the Board’s huge scale of operations, its complexity and the long lives of most of its assets, such changes would take some time to effect. In the time available to us, a specific study covering twenty years, for example studying every fifth year, was out of the question. We therefore selected 1992—halfway through the period—as a proxy for the twenty years.

13.2 Our consultants developed the Options by producing a set of mathematical models which linked variables (demand, service levels, unit costs and infrastructure) in such a way that, as changes were made in one or more of these variables, the estimated consequences for the others, and for the financial results, could be evaluated. Once the various critical assumptions had been produced as computer input, the numerical output and illustrative maps could readily be obtained. This application to the railway of well-known transport modelling techniques represents, we believe, a development in rail system planning in this country.

13.3 For the data to be manageable certain simplifications had to be made. The Board’s own computer program SAFGABS allocates infrastructure costs to some 4,000 links. The SAFGABS network was condensed into a simplified network of some 1,000 links by the amalgamation of shorter links.

13.4 The basic data source for the modelling was the Board’s 1982 Budget. A check was made to ensure that when derived unit costs were applied to the 1982 level of activity the model gave results which reproduced reasonably accurately the 1982 Budget.

13.5 Our consultants first developed two “Reference Cases”, each of which provides:

- (i) a forecast, analogous to a “snapshot”, of what the present railway would be like in 1992, assuming no material change from the present in network and services; and
- (ii) a base case with which the other Options involving changes in network and services could be compared on a consistent basis.

#### The Reference Cases

13.6 The two Reference Cases were developed on a consistent basis, the first of them (R1) being closer to an “as is” base case, while the second (R2) assumes a higher level of efficiency.

13.7 The Reference Cases have been built up by making a number of assumptions about the future characteristics of the railway. The pattern and frequency of passenger services assumed are based on the provisional Board timetable for 1983, but changes have been made to reflect service reductions in later years included in the Board’s 1982 Rail Plan (August version). As a result train load factors are about 15 per cent higher in 1992 than at present. Some growth in potential demand has been assumed, in line with the Board’s own long-term forecasts. But it has also been assumed that the Board will increase fares by about 1 per cent a year in real terms on Inter-City and L&SE services in order to improve the financial position of the railway.

13.8 Unit costs have been derived for particular activities; train operation, infrastructure, and administration. Within two of these categories—train operation and infrastructure—unit costs have been calculated for each activity which has distinct cost characteristics.

13.9 In estimating unit costs in 1992, some real increases have been assumed, most of which reflect trends identified in the engineering study (see Chapter 6) or in the Board’s own 1982 Rail Plan (August version). The most important assumptions are:

- (i) an increase in unit labour costs of 10 per cent over 1982 levels;
- (ii) diesel fuel prices increase by about 3 per cent a year on average, and electricity prices by about 1 per cent a year;
- (iii) for crew costs, labour cost increases are offset to some extent by increases in efficiency, eg from flexible rostering. Inter-City crew costs rise by 8 per cent per train-mile, and Provincial Services and L&SE crew costs by 7 per cent. Freight crew costs are reduced by 20 per cent per train-mile;

- (iv) traction and rolling stock maintenance unit costs rise in line with recent trends. Different factors are applied to different classes of vehicles, eg HSTs' maintenance costs rise 20 per cent, DMUs' 55 per cent and EMUs' 70 per cent over 10 years;
- (v) unit terminal costs remain constant except for the effect of unit labour cost increases;
- (vi) increases in infrastructure costs are also assumed to arise only from increases in labour costs. Rates of renewal of equipment are assumed to be those at present. (The Rail Plan shows increases in rates of renewal to deal with a backlog. Whether or not these are justified, it is assumed that any catching up will have been completed by 1992.)
- (vii) unit administration costs increase because of the labour cost increases assumed. Otherwise, 10 per cent of administration costs are fixed; the remainder are related to a suitable variable, track-miles, train-miles, etc.

13.10 Some rationalisation of the existing rail network is also assumed. The 1992 network has 1,790 track-miles, and 300 route-miles, less than the existing network. This reduction is in line with the Board's own plans.

13.11 The second Reference Case (R2) assumes that further efficiency and productivity improvements will take place, but still within the framework of the existing railway. Higher train loadings are assumed as well as some further track rationalisation. The rule applied in the second Reference Case and in all the Network Options—but not of course in R1—is that if there are less than 10,000 train movements a year on a line, then that line can be single-tracked: where there are 10,000–40,000 train-movements a year, two tracks should suffice. Some reductions in the rate of increase of maintenance and operating costs are also assumed. In effect, the rate of increase in unit costs assumed in the first Reference Case has been halved, except in the case of (a) energy costs which are unchanged; (b) traction and rolling stock maintenance costs, where only that portion (45 per cent) of the increase in unit costs attributed to a reduction in fleet size is halved.

13.12 *The results of the first Reference Case (R1)* see Table 14.1—show costs nearly 6 per cent higher in 1992 (at £2,802 million) than those included in the 1982 Budget. There is a reduction of 1.5 per cent in passenger miles in 1992 compared with the 1982 Budget forecast, but a 5.1 per cent increase (some £90 million) in total passenger revenue. The passenger deficit (including PTE services) is £987 million, as compared with an equivalent 1982 Budget figure of £933 million\*, an increase of £54 million. Numbers of staff fall by 19,000.

13.13 *The results of the second Reference Case (R2)* show 14,000 less workforce than R1, ie 33,000 less than the 1982 Budget. Costs fall to £2,639 million, but revenue is little changed from R1. The passenger deficit falls to £854 million, £79 million less than the 1982 Budget figure, and the total deficit to £822 million, £94 million less than the 1982 Budget figure.

13.14 The results of both Reference Cases (R1 and R2) provide forecasts of what the railway would be like in 1992 on the basis of certain assumptions. In the event the railway's financial results may be different. But this possibility does not seriously detract from the Reference Cases' other main purposes, namely to serve as bases against which the different Network Options can be compared. It is the size of the differences between the Reference Case results, and the 1982 Budget as modelled, and the results of the Network Options that is important. In so far as R1 and R2 might be thought to over-state the cost of the railway in 1992, then the costs of the different Options would also be over-stated.

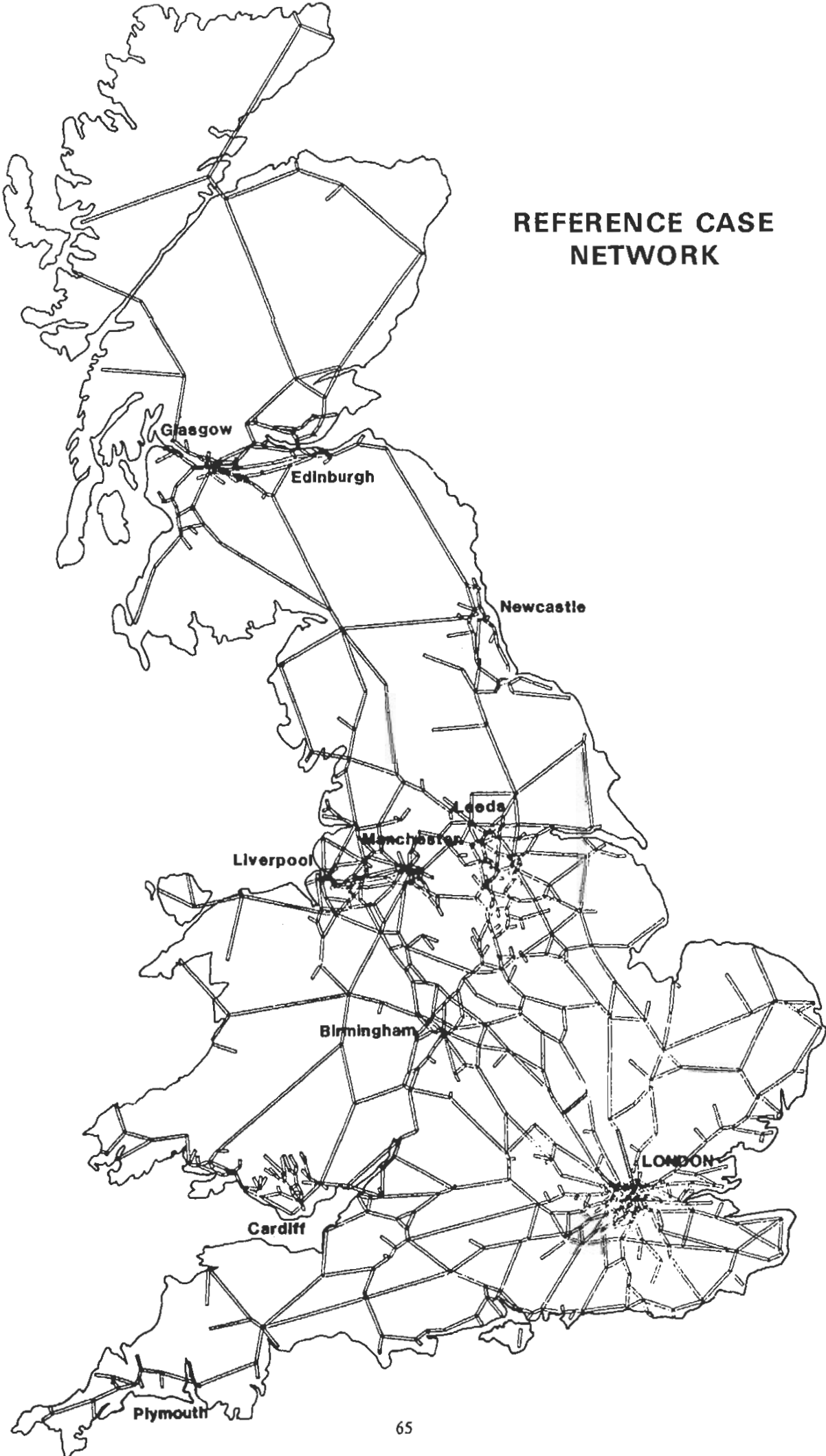
## Network Options

13.15 In developing the Network Options, we thought it important to illustrate a broad range of financial choices. We have taken the level of subsidy to be an important characteristic of any option, but to devise options solely on that basis would not have been consistent with our general view that subsidy should be expressly justified. We therefore selected some of the Network Options by adopting particular premises.

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\*This figure is not directly comparable with those given elsewhere in the Report because it is derived from the 1982 Budget, and excludes ancillary income and interest charges, which were not taken into account in the modelling process. The figure is not the actual deficit forecast in the 1982 Budget (which, on the same basis, is £931 million) but the deficit obtained when applying the model assumptions to the 1982 Budget as a check (see paragraph 13.4). The 1982 figure produced by the model is given so that across all Options comparisons may be made on a consistent basis. It is the differences which are important.

**REFERENCE CASE  
NETWORK**



13.16 Our consultants accordingly developed and evaluated 6 network options:

- A – a commercially viable railway, which might be sustained in the long run with no financial support from public funds.
- B – the same railway as A, to which we added those loss-making services where the resource cost of withdrawing the service would be greater than that of retaining it. We assumed this rationale would lead to the retention of the best performing London commuter services but no other loss-making services. (Local authorities in other metropolitan areas would be able, as at present, to subsidise additional rail services.)
- C1 – a network omitting services with the most adverse operating ratios, while leaving the network largely unchanged.
- C2 – a network omitting further services with adverse operating ratios, limiting the annual deficit to about £700 million.
- C3 – a network omitting yet further services with adverse operating ratios, limiting the annual deficit to about £500 million.
- D – a network that maintained existing connections with all communities of more than 25,000 inhabitants. The rationale for this option is that the nation derives a benefit, or perceives a potential benefit, in having the larger centres of population linked other than by road.

They also developed a High Investment Option (H).

13.17 To avoid misunderstanding (eg the use of particular figures and diagrams out of context), we should emphasise first that the 1992 Network Options are no more than illustrations. In the time available our consultants could explore and illustrate only a limited number of Options. None of the networks is a unique prescription: the C Options, for example, exemplify the sort of networks that could be provided at certain levels of support. The output is presented in some detail, the outcome of the requirement for consistency but that should not be misinterpreted. In a study of this kind, precision is unattainable, and the results are necessarily approximate. We believe, however, that they provide sufficient information to enable reasonable comparisons to be made between the Options illustrated and the Reference Cases. The second point we should emphasise is that the maps of the network options are illustrative and do not distinguish between freight and passenger services; it should not be assumed therefore, that all routes carry both freight and passenger services or passenger services of all kinds.

### Contributory Revenue

13.18 The treatment of contributory revenue and freight in the evaluation of the Network Options requires some explanation. The estimation of “contributory revenue” was an important part of the analysis. When there is a rail route from A to C, passing through B, and the line between A and B is closed, an estimate has to be made of how much of the “contributory revenue” (the revenue carried between B and C and elsewhere on the rail network that was contributed by the existence of the line between A and B, because people were travelling from A to C and beyond) would be retained. How many people would travel from A to B by another mode, and then take the train from B to C and beyond? Since the retention of “contributory revenue” can be important to the financial results of the network remaining after a closure programme, it is necessary to describe the assumptions used in some detail.

13.19 Where a link\* from A to B was deleted from the model the following assumptions were made:

- (i) all revenue directly arising on the link, ie revenue from people travelling from A to B only, would be lost;
- (ii) other revenue on profit centres\* using the deleted link would be reduced, the amount depending on the proportion of the profit centres deleted. When more than half of the profit centre was removed, the entire profit centre was assumed to be deleted;
- (iii) revenue on profit centres not using the deleted link was also scaled down, the amount depending on the revenue lost under (i) and (ii).
- (iv) where suitable alternative routes were considered to exist for traffic previously using the deleted link, some traffic and revenue retention was assumed, with allowance being made for the effect of any increased journey time.

13.20 Contributory revenue becomes more important when the number of deleted profit centres increases substantially. Empirical data about the loss of contributory revenue are scarce. Our consultants have made use of what is available within the Board, including some special analyses. We must record that the Board expressed reservations about the use made of their analyses, but we concluded that the output of the whole process constituted the best guide available for estimating “contributory revenue”.

13.21 It is an assumption common to all Options that when a link is deleted, there will be bus services (at least at minimum level) to allow connections to be made to the remaining rail services by non-car

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\* A link is a separately defined section of route. A profit centre is a separately identified revenue-generating activity which may consist of single flows of traffics, groups of flows, or passenger services.

users. This would sometimes require the provision of replacement bus services. Although some of these replacement bus services could be profitable, it may be presumed that some would require some financial support. No account has been taken of the net cost of replacement bus service in the financial evaluations of the Network Options.

#### **Freight (including Parcels)**

13.22 In the time available it was not possible to analyse freight traffic in the same detail as passenger traffic. Freight, which in the Reference Cases is not expected to change significantly from its 1982 level, is assumed to continue to run on the Option networks, using either freight-only links, or links used by passenger services. Where a link is deleted in a particular option, freight traffic is diverted to remaining links if that does not involve more than 60 per cent additional mileage. Otherwise, the freight revenue arising on the deleted link is assumed to be lost.

13.23 Two simplifying assumptions had to be made about the effects of deleting freight services. Freight revenue has been calculated as an average per tonne mile over the entire network. This would tend to over-state revenue from bulk commodities and under-state revenue from main-line Speedlink and Freightliner traffic. Second, the loss of freight revenue from the deletion of a link was assumed to be limited to the revenue directly attributed to the link. No assessment was made of loss of revenue elsewhere on the network. On the other hand, no assessment was made of the potential for retaining freight-only links used by services which make a positive contribution elsewhere on the network.

13.24 These simplifying assumptions may lead the Options to over-state slightly the amount of freight traffic that could be run profitably in the C Options, but to under-state slightly freight traffic in the A and B options. The actual freight services operated in any of the Options could in practice be larger than those shown, if additional revenue were to exceed the marginal costs involved.

## CHAPTER 14

### RESULTS OF THE NETWORK OPTIONS

14.1 In this Chapter we describe how each of the Network Options has been produced, and give the results of their evaluation.

#### **Option A—A Commercial Railway (see Map A)**

14.2 All profit centres (including PTE services) whose operating ratio\* was greater than 0.85 were deleted. In addition, links with an operating ratio greater than 0.85 were deleted (except where they were essential to maintain major services), leading to the deletion of some further profit centres.

14.3 Because of the very radical change implied by this Option it was more appropriate to use R2 unit cost assumptions, and to assume that there would be a greater than pro rata reduction in administration costs. Only 60 per cent of the model's administration cost was assumed.

14.4 Option A produces a passenger deficit of £32 million, offset by freight profits so that the total railway shows a profit of £34 million. The resulting system may, therefore, be taken as a proxy for what would be viable. We would expect some freight-only lines to be added back into the network. As it stands, Option A contains only 1,630 route-miles, about 16 per cent of the present rail network. Costs are only 28 per cent of R2 costs, but passenger-miles (7,900 million) are about 44 per cent of those carried in R2. Freight train-mileage is only 25 per cent of that operated in R2.

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\* For profit centres, the operating ratio is obtained by dividing direct costs by revenue. For links, the operating ratio is obtained by dividing direct costs plus infrastructure costs (attributed in accordance with the Board's SAFGABS model) by attributed link revenue. Passenger revenue is attributed to links in accordance with coach-miles operated, freight revenue in accordance with tonne-miles. Both costs and revenues on links take into account freight as well as passenger services.

**OPTION A  
NETWORK**





**Option B (see Map B)**

14.5 Those London commuter services that cover their direct costs and allocated infrastructure costs have been added to Option A. Passenger-miles carried on L&SE services (6,100 million) are 74 per cent of those operated in R2, so the majority of London commuter services are included in this Option. Those omitted are mainly orbital routes or small branch lines. There was not time to check that the abandonment of each of the commuting services retained would result in greater resource costs due to highway congestion, the primary rationale for this particular network. But the Option may be regarded as a reasonable proxy for a "resource cost minimisation" network.

14.6 Unit costs assumed are the same as for R2, except that some savings are assumed in administration costs, 75 per cent of the model's administration cost being taken.

14.7 Option B produces a passenger deficit of £72 million, and an overall deficit of £19 million. It includes 2,220 route-miles, 22 per cent of the R1 network. Total costs are about 36 per cent of R2 costs, but passenger-miles carried (9,800 million) are about 55 per cent of those carried in R2. Freight train-mileage is not much increased from Option A.

**OPTION B  
NETWORK**



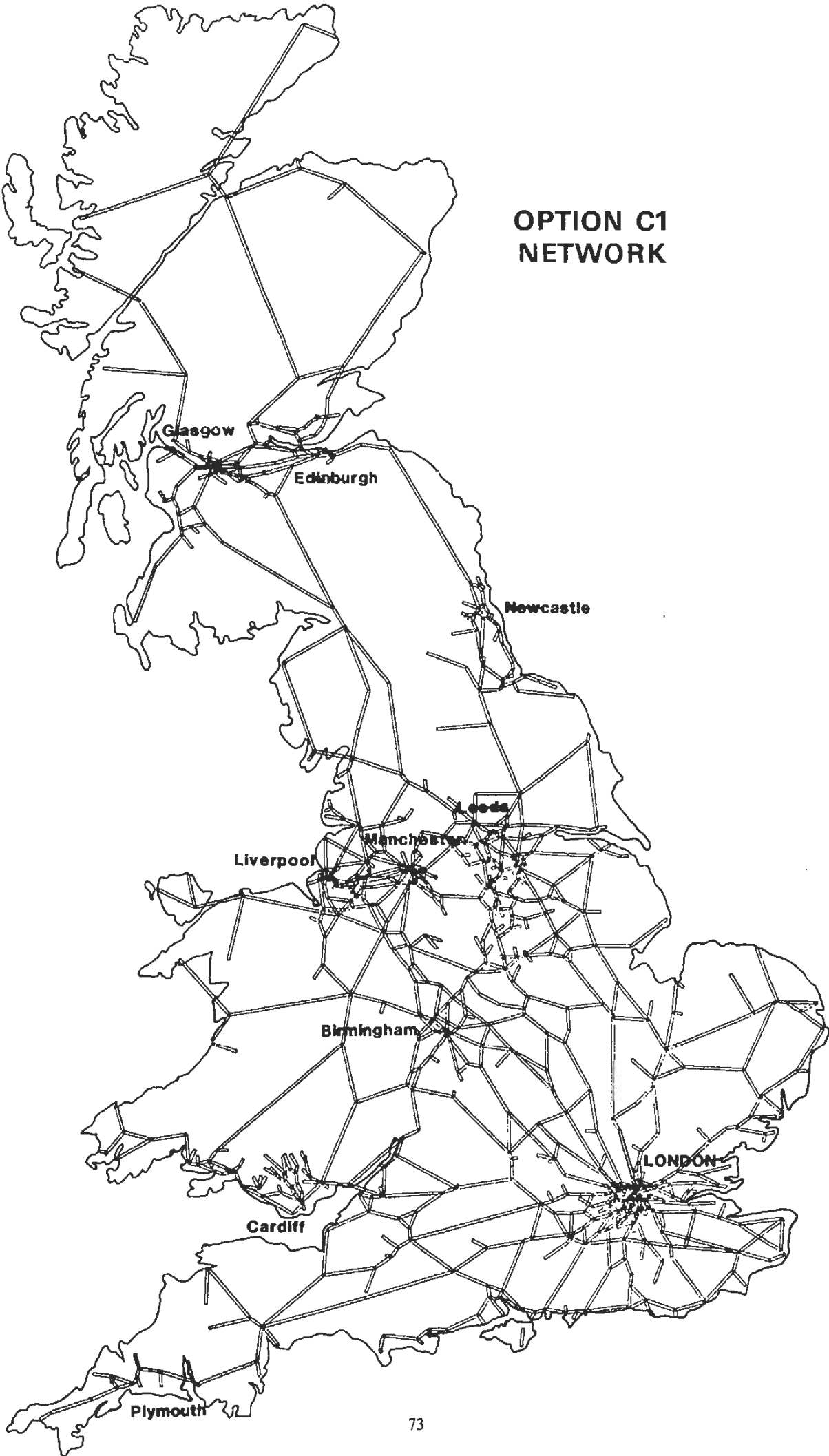
## **The C Options**

14.8 Three C Options were developed from the first Reference Case (R1) by progressively deleting from the system the least efficient profit centres and links in terms of operating ratio. In all the C Options, the unit costs assumed are the same as for R1. It is, therefore, with R1 that they should be compared.

### **Option C1 (see Map C1)**

14.9 The aim in developing this Option was to achieve savings by deleting the worst-performing services, while leaving the network largely unchanged. All profit centres whose operating ratio was greater than 2.0 were deleted, unless they were PTE services or their "contributory revenue" or growth potential was thought especially important by our consultants, eg Dundee-Glasgow. This process does not reduce route-miles significantly; only 80 route-miles are closed. But a substantial number of the more lightly used stations and passenger services no longer operate on lines that remain open for freight or other passenger services.

14.10 The passenger deficit with Option C1 is £807 million, which is a reduction of £180 million from R1; and the total deficit £817 million, a reduction of £165 million from R1. It eliminates less than 1 per cent of route-miles on R1. Costs are about 93 per cent of R1 costs, but passenger-miles (17,200 million) are about 96 per cent of those carried in R1. Freight train-miles are unchanged. Nearly all the cost savings are in train services (direct costs). The comparison with R1 shows that significant savings are available from making these sorts of changes to the existing railway.



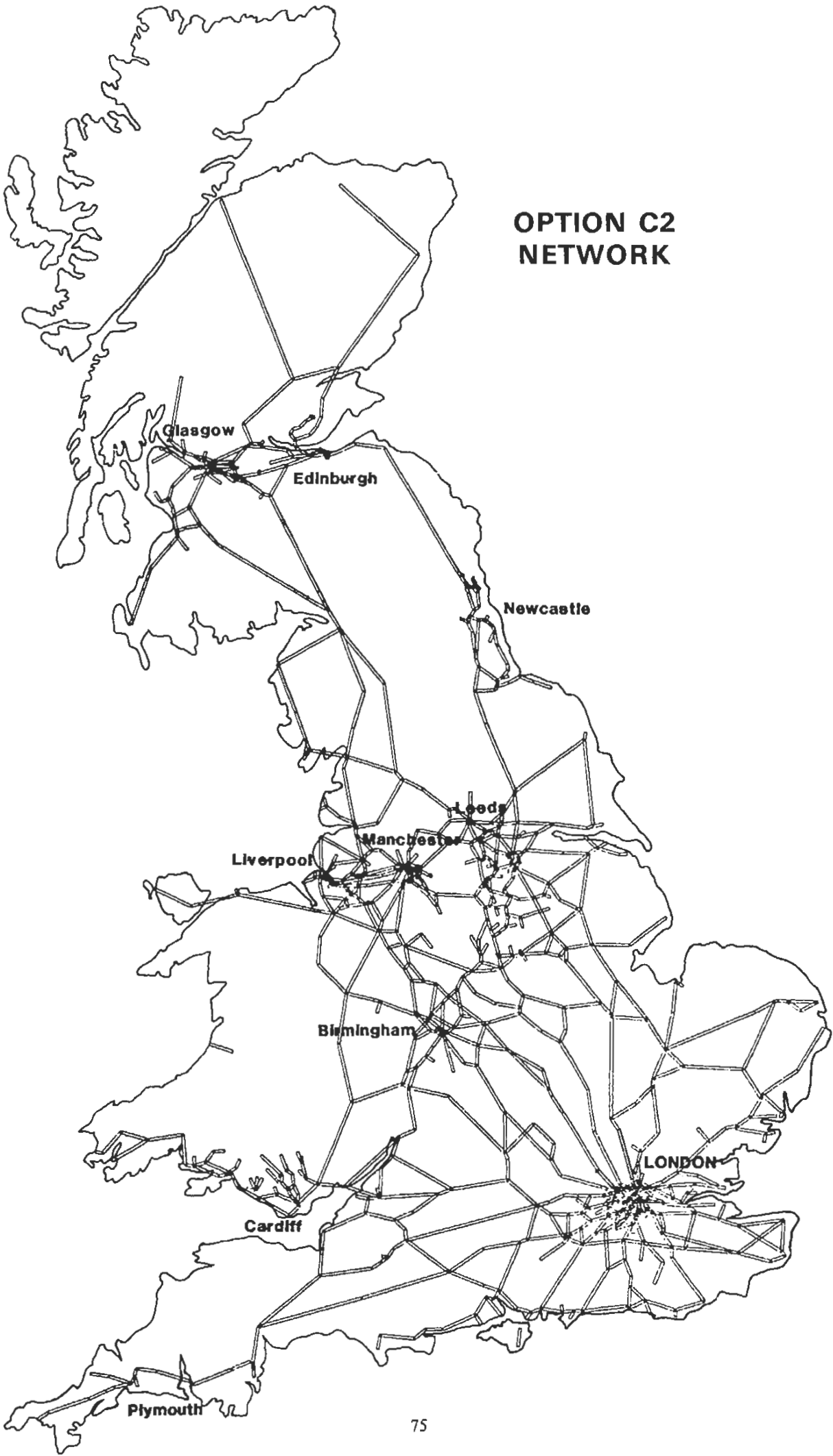
**OPTION C1  
NETWORK**

### **Option C2 (see Map C2)**

14.11 The aim in developing this Option was to retain as much of the network as possible while reducing the overall deficit to about £700 million. All profit centres whose operating ratio was greater than 1·0 were deleted, except PTE services and a small number where the "contributory revenue" or growth potential was thought important by our consultants, eg Edinburgh-Glasgow. Any links whose operating ratio was more than 2·5 were deleted, except where they were needed by PTE services or to maintain network continuity.

14.12 The passenger deficit with Option C2 is further reduced to £690 million, which is a reduction of £297 million on R1; and the total deficit to £667 million, a reduction of £315 million from R1. 1,760 route-miles are closed compared with R1, or 17 per cent of the system. Costs are about 85 per cent of R1 costs, but passenger-miles carried (16,400 million) are about 91 per cent of those carried in R1. Freight train-miles are reduced by about 2 per cent. With this Option there are some savings in infrastructure costs but most of the savings are, as with C1, in direct costs.

**OPTION C2  
NETWORK**

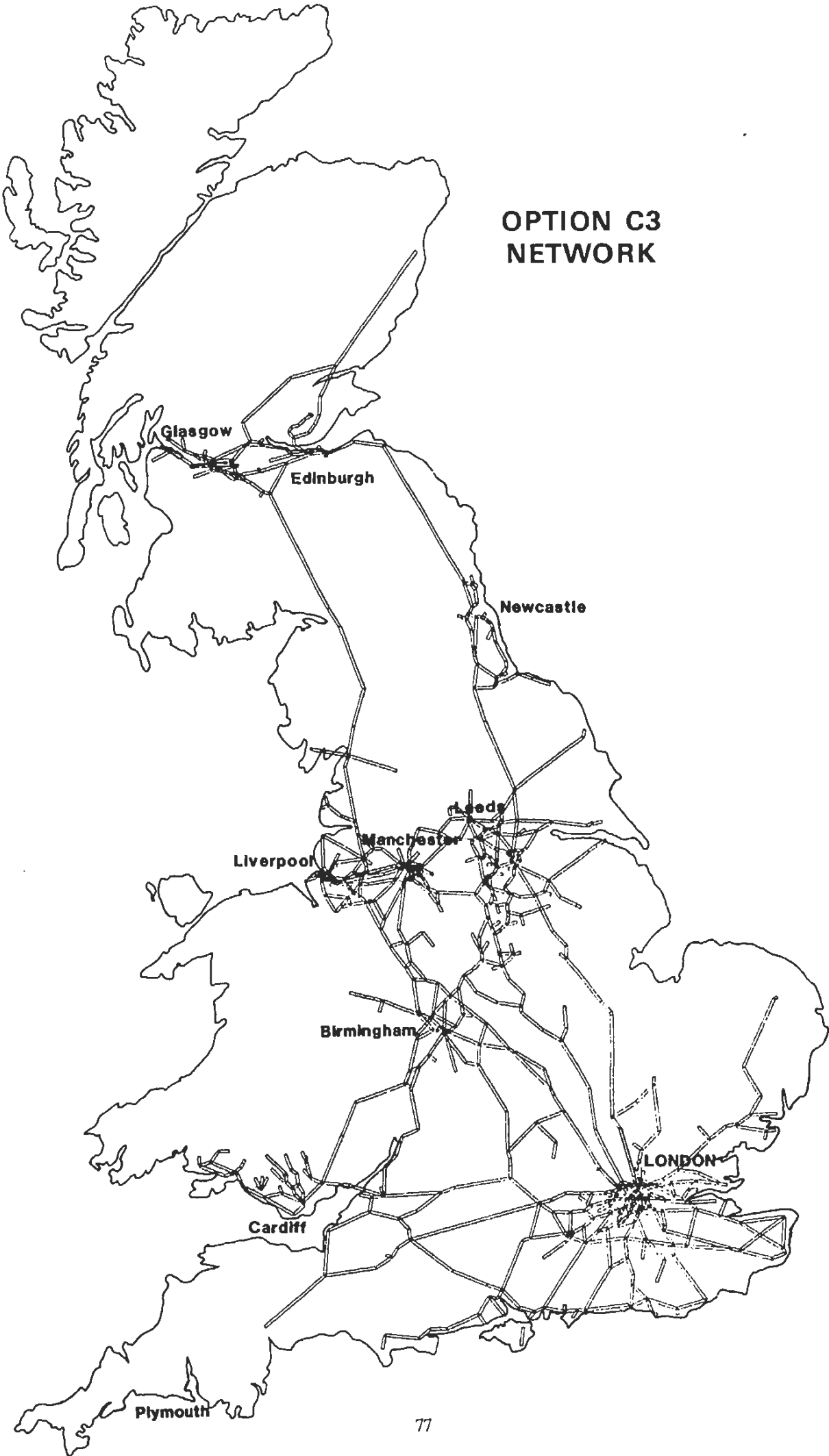


**Option C3 (see Map C3)**

14.13 To obtain a passenger deficit of £500 million or so, it was necessary to start making significant cuts in the network. Links whose operating ratio was greater than 1.0 were deleted (except where they were needed by PTE services or to maintain network continuity), resulting in the deletion of some profit centres. Those profit centres retained in Options C1 and C2 for reasons of "contributory revenue" or growth potential were also deleted.

14.14 Option C3 produces a passenger deficit of £564 million, which is £423 million less than R1; and a total deficit of £534 million, £448 million less than R1. It includes 6,120 route-miles, about 61 per cent of the R1 network. Costs are about 76 per cent of R1 costs. Only half the cost savings now achieved are direct costs, about 30 per cent are infrastructure costs, and 20 per cent administration costs. Passenger-miles carried (15,300 million) and freight train-miles are about 85 per cent of those in R1.

**OPTION C3  
NETWORK**





#### **Option D (see Map D)**

14.15 The aim in developing this Option was to maintain existing connections to the network of all communities above 25,000. Since Option C2 disconnected only 11 communities with a population of 25,000 or more, this Option was evaluated by adding back lines in order to reconnect those 11 communities to the Option C2 network.

14.16 Option D produces a passenger deficit of £707 million, £280 million less than R1 and £17 million more than C2. The total deficit at £684 million is £298 million less than R1, and £17 million more than C2. It includes 8,400 route-miles, about 83 per cent of the R1 network. Costs are about 86 per cent of R1 costs, but passenger-miles carried are 92 per cent of those carried in R1. When Option D is compared with Option C2, the average net cost of each additional passenger-mile is about 12·3 pence (based on detailed results, and not the rounded numbers shown in Table 14.1).

#### **Option H—A High Investment Option**

14.17 This Option was developed in order to investigate the effect of investing at a high level, to see whether this would improve the railway's financial results. For the reasons given elsewhere (see paragraph 8.14), it does not take account of the possible effects of electrification. In developing this Option, increased investment was assumed in the following areas:

##### *Track infrastructure:*

- (i) Introducing CWR at a faster rate, so that by 1992 all track designated as suitable to become CWR has been converted. This would reduce track maintenance costs. In association with this development, they assumed, as in all the Network Options, that considerable track rationalisation will be undertaken, reducing track-miles by a further 1,100 miles.
- (ii) Introduction of radio signalling on single track lines, where appropriate.

##### *Traction and rolling stock:*

- (i) Reducing the average life of rolling stock by up to half, with a view to reducing maintenance costs and generating additional passenger revenue.
- (ii) Increasing investment in train cleaning equipment with a view to increasing passenger appeal and revenue.

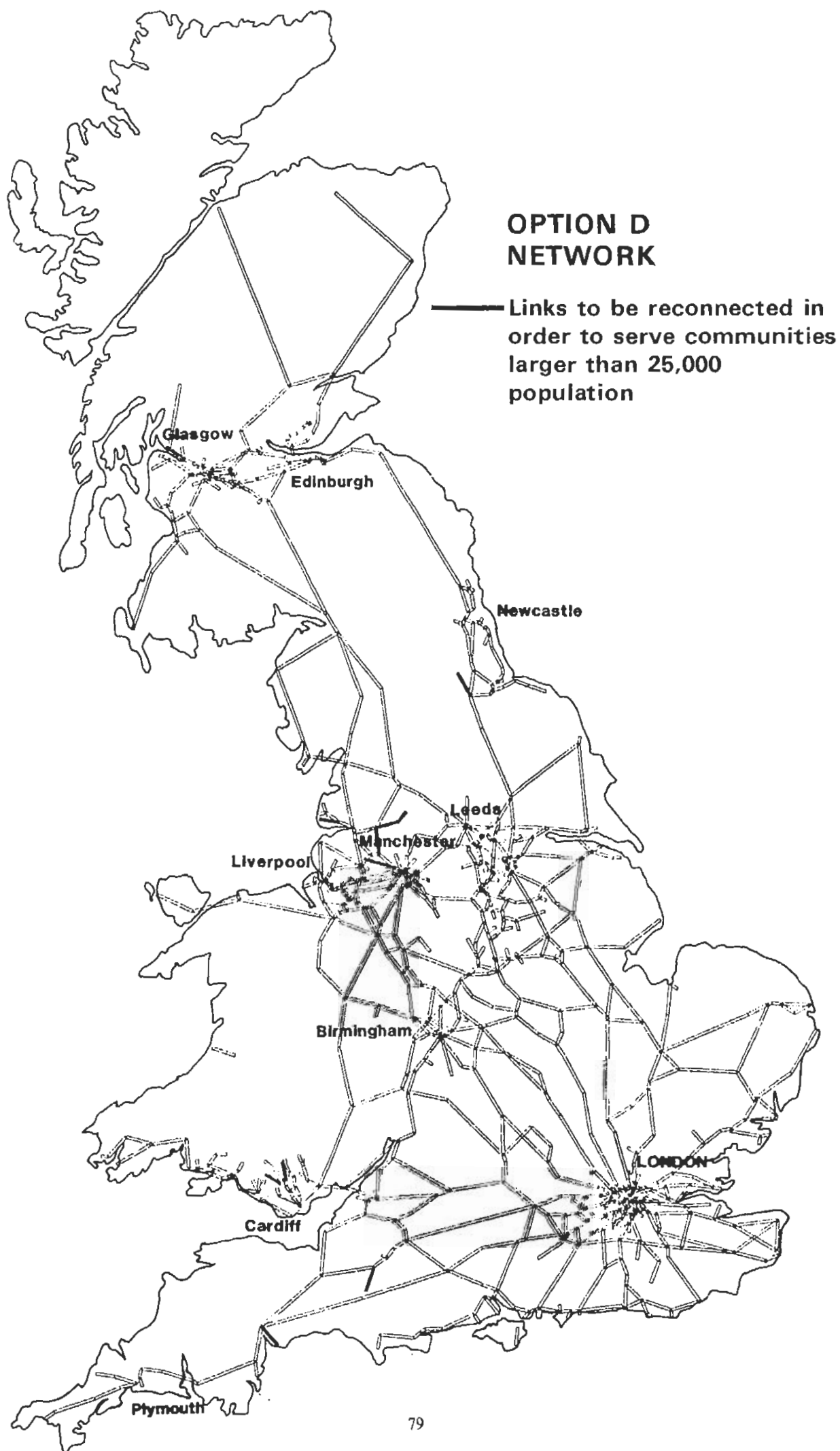
##### *Terminals:*

Increasing expenditure on station buildings and facilities, with a view to reducing maintenance costs and increasing passenger appeal and revenue.

14.18 In evaluating this Option it was necessary to devise a special set of unit cost assumptions, compatible with the impact of the investment changes proposed. The most significant change was to reduce the unit costs of traction and rolling stock maintenance as compared with R1. All the impact of ageing of the fleet from 1982 to 1992 was eliminated and a further 5 per cent subtracted, to represent the impact of a more modern fleet. Cleaning costs were increased by 20 per cent to represent the higher activity rate, but terminal operating and maintenance costs were reduced by 10 per cent to represent the impact of increased investment in station refurbishment and improvement. It was further assumed that improved train crew scheduling would be obtained, but not so much as in R2.

14.19 The High Investment Option produced a passenger deficit of £848 million, and a total deficit of £803 million. This represents an improvement in annual operating results over R2 of £6 million (passenger deficit) and £19 million (total deficit). The investment required in the period 1982–1992 is some £4,000 million compared with £2,400 million under R2, an increase of £1,600 million.

14.20 As evaluated, therefore, the High Investment Option would not show a satisfactory financial return. While it would not make sense to pursue the High Investment Option on its own, it might be worthwhile to examine at least some aspects of it in conjunction with one or more of the Network Options. Some of the Network Options could well show a better financial return if operated to a higher quality.



## Summary Table

14.21 Table 14.1 shows the main characteristics of the Network Options, and of the two Reference Cases, and gives the financial results of their evaluation. Figure 14.1 provides a further illustration of the financial results. It is apparent that with the cuts in services, costs are reduced faster than revenue is lost. Although no great confidence can be attached to the shape of the curve between points B and C3, the interpolation seems reasonable for the present purposes of illustration.

TABLE 14.1: Main Characteristics of the Reference Cases and Network Options

<i>1982 prices</i>	<i>1982 Budget<sup>1</sup></i>	<i>R1</i>	<i>R2</i>	<i>A</i>	<i>B</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>D</i>	<i>H</i>
Route-miles <sup>2</sup>	10,370	10,070	10,070	1,630	2,220	9,990	8,310	6,120	8,400	10,070
Track-miles <sup>2</sup>	21,310	19,520	18,840	4,300	5,670	18,440	16,370	13,050	16,560	18,470
Passenger train-miles (million)	195	168	164	50	66	147	133	123	135	171
Passenger-miles (million)	18,300	18,000	17,900	7,900	9,800	17,200	16,400	15,300	16,500	18,400
Numbers employed <sup>3</sup>	163,800	145,100	130,900	59,100	69,800	137,200	128,100	116,300	129,300	144,500
Annualised capital investment (£m) <sup>4</sup>	163	237	232	76	98	221	204	185	206	300
1982-92 capital investment (£m) <sup>5</sup>	—	2,500	2,400	500	700	2,200	1,900	1,500	1,900	4,000
Freight train-miles (million)	41	41	41	10	12	41	40	35	40	41
Annual cost (£m)	2,647	2,802	2,639	727	954	2,597	2,391	2,125	2,416	2,645
Annual revenue (£m)	1,731	1,821	1,817	761	935	1,780	1,724	1,590	1,731	1,842
Passenger deficit (£m) <sup>6</sup>	(933)	(987)	(854)	(32)	(72)	(807)	(690)	(564)	(707)	(848)
Total surplus/(deficit) (£m) <sup>7</sup>	(916)	(982)	(822)	34	(19)	(817)	(667)	(534)	(684)	(803)

### Notes:

<sup>1</sup> As modelled (see footnote on page 64)

<sup>2</sup> excludes sidings

<sup>3</sup> excludes BREL

<sup>4</sup> The average annual expenditure on capital investment seen as necessary in 1992 and subsequent years. The 1982 Budget figure is low because of the moratorium imposed by the Board in December 1981 on new starts.

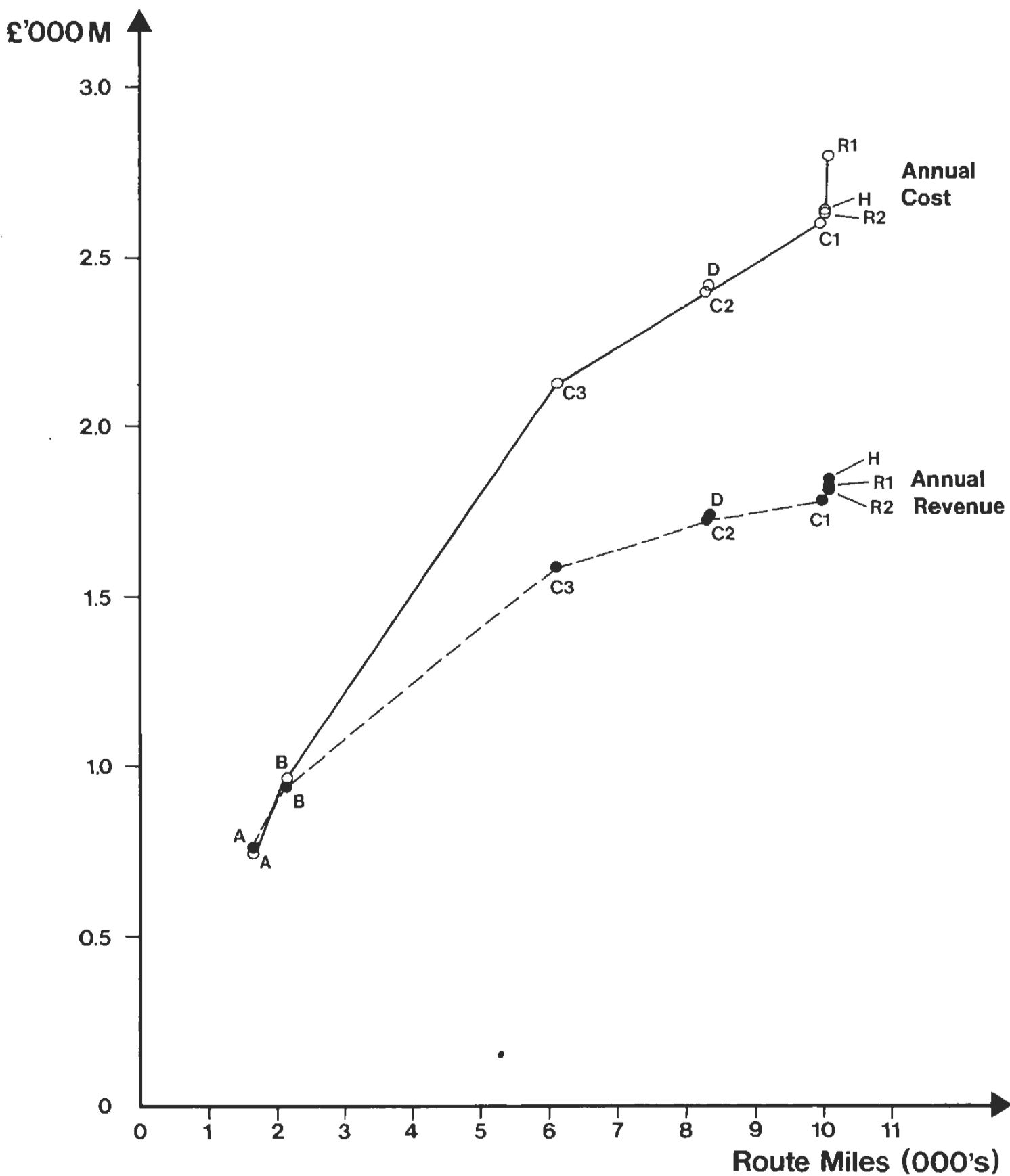
<sup>5</sup> Investment expenditure includes all "capital investment" but excludes "revenue investment".

<sup>6</sup> Before taking account of ancillary income and interest charges.

<sup>7</sup> All figures have been rounded.

14.22 We should emphasise that no account has been taken of:

- (i) the transitional costs of contracting the railway system. These could be very large, and would require detailed evaluation before any network options were implemented.
- (ii) the net cost of replacement bus services (see paragraph 13.21).



**Annual Cost & Revenue v Route Mileage by Option**  
**Figure 14.1**

## CHAPTER 15

### PASSENGER RAILWAY CLOSURE PROCEDURES

15.1 At present, the Board cannot withdraw railway passenger services from a railway line or close any railway passenger station until the procedures set out in the Transport Acts of 1962 and 1968 have been complied with. In brief, these procedures require:

- the *Board* to publish a notice of intent to propose closure; and, after not less than 2 months, to publish closure proposals, with particulars of alternative road and rail services available and details of any proposals for providing or augmenting those services.
- the relevant *Transport Users' Consultative Committee (TUCC)* to consider any objections to the Board's proposals, and to report to the Secretary of State on any hardship that users would experience.
- the *Secretary of State* to consider the TUCC's report and other factors, including social and economic factors, before reaching his decision.

15.2 We consider that all these procedures should be retained. Even if the Secretary of State decided on a policy of closing specified types of unremunerative services, he would need to apply that policy line by line: and before reaching a decision on a particular proposal he would still need to consider the hardship that the proposed closure might cause, and whether this could be mitigated. The TUCCs are well placed to protect travellers' interests by holding public inquiries into these aspects of closure proposals and reporting on them to the Secretary of State.

15.3 In the past, rail closure proposals have often taken a long time from start to finish. The delays, however, occurred mainly within the Department and the Board after the TUCC report had been received. They were not caused by the TUCCs, let alone by the statutory procedure itself. If there were a programme of closure proposals, rather than isolated submissions, both the Board (being better geared to provide all the information required) and the Government (having a declared policy objective) should be able to ensure that decisions on individual proposals were reached more speedily. Nevertheless, we would recommend the introduction of time-limits for all the main stages of the closure procedure.

15.4 Two other factors could delay the implementation of closure proposals. First, it has often taken much time to establish whether any replacement bus services proposed in a particular case would provide an "adequate" service. Such delays could be reduced if the Department established criteria against which any replacement bus services would be planned and judged. Secondly, the bus licensing procedures operated by the Traffic Commissioners could delay the introduction of replacement bus services. The licensing requirements for those bus services should, therefore, be reviewed.

## CHAPTER 16

### BUS SUBSTITUTION

16.1 In many areas it would be more cost-effective to meet the limited demand for public transport by providing bus rather than rail services. Many of the trains in the Provincial sector carry very few passengers: an average loading of less than 30 people per train is quite common. Bus operating costs can be as little as a quarter of rail operating costs. When account is taken of the additional cost of maintaining the track and signalling, trains cost very much more to run than buses. The introduction of lightweight vehicles and radio signalling and the simplification of track and level crossings can be expected to have some effect on rail operating costs, but this could not have much effect on the relativity of bus and rail operating costs. And on many rail lines substantial renewal expenditure will be required in the next decade.

16.2 Whether or not, therefore, the Secretary of State decides to move towards one of the Network Options outlined in Chapter 13, there is a case for substituting bus for train services on lightly used rail lines.\*

16.3 The Board have themselves for some time advocated bus substitution on their worst-performing rail services, with buses operating as part of the rail timetable and with guaranteed connections. They have undertaken a number of studies, some in conjunction with the National Bus Company (NBC), on the feasibility of providing satisfactory alternative bus services and on the likely financial effects. In their evidence to us, the NBC estimated that buses could replace trains on 75 per cent of Provincial services, the only exceptions being where there were heavy peak flows or where the road network was inadequate. The Board's studies also concluded that, generally, it would be feasible to provide adequate alternative bus services and that substantial cost savings would result. These were, however, desk studies, and the authors thought it necessary to express some reservations (which we understand) about the assumptions used, especially on the amount of contributory revenue retained, and on whether the results could be universally applied. They stressed the need for careful line-by-line examination, and we agree with this view.

#### Quality of Replacement Bus Services

16.4 Many people are understandably unhappy about the idea of alternative bus services because of their experience of the rail replacement services introduced during the "Beeching" closures in the 1960s. The substitute bus services then introduced were provided with no special provision being made for their financial support. The substitute buses were required to call at the closed railway stations rather than to serve the local communities; buses and coaches of indifferent quality were often employed; and journey times were not comparable with the previous rail services. Less than half of former rail passengers transferred to these bus services. The future of the bus services was not protected, and many disappeared after no more than 2 years.

16.5 We believe that much more acceptable alternative bus services could be provided, which would largely mitigate the hardship caused by a rail closure. There could and should be an explicit guarantee about their future and specific provision made for their financing. Since bus costs are lower than rail costs it would be possible to choose from a full range of modern vehicles, according to local requirements. The replacement bus services could not only be planned to link in with the rail network, but could be integrated into the national rail timetable and perhaps marketed as part of the rail network. Passengers should certainly be able to book "through journeys". The bus services need not necessarily attempt to follow the old rail line, but could link new communities, thus improving the accessibility of some places to the rail network. Some buses might be operated with limited stops so as to achieve higher overall journey speeds.

16.6 In some important respects bus services would provide a lower-quality service than rail. In particular, journeys would often take longer and, because of traffic conditions, it might be difficult to achieve the same reliability and punctuality. On the other hand, buses have certain advantages. As their individual capacity is lower, services can be designed to match demand more closely. This could bring greater frequency and flexibility. Buses can penetrate to the heart of local communities, a factor that can compensate for slower speeds where railway stations are poorly sited.

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\* One possibility suggested to us in evidence was that disused railway lines should be converted into roads. We have not examined this possibility, since in recent months two independent studies have been commissioned on the cost of converting redundant railway lines into roads, one focussing on the Sanderstead-Elmers End line in south London, and the other on the Woodhead Tunnel between Sheffield and Manchester.

16.7 These are general considerations and we recognise that a great deal of work would have to be done before bus substitution occurred on any scale. What we wish to emphasise is that a totally new and imaginative approach would be required.

#### **Administration of Replacement Bus Services**

16.8 It might not always be necessary to provide "replacement" bus services of the sort discussed in Paragraph 16.5. In some places, existing bus services, perhaps with some adjustment, might prove capable of carrying passengers who transfer to or from rail. Or an operator might perceive an opportunity to carry such passengers by bus at a profit. But we would not expect this to happen in the majority of rail closures.

16.9 We believe the Board should be made responsible for the provision of any replacement bus services. They have said that they do not wish to operate replacement bus services, and we do not think that they should do so. Since the Board lack expertise in planning bus services, the NBC have suggested that they should make available their planning expertise to the Board, and that replacement bus services should then be operated by NBC subsidiaries.

16.10 We do not think, however, that the Board should tie themselves exclusively to the NBC. Smaller private operators may be able to provide a bus service more efficiently and cheaply than public sector operators. A better alternative would be for the Board to specify in contract form the minimum bus service that they wish to be operated, and then to put out a contract for tender, with the operator who requires the least annual subsidy receiving the contract. The contract would specify the minimum requirements: the location of stops, the minimum frequency of service, the maximum fare level, certain vehicle requirements (size, luggage capacity etc) and safety requirements (maintenance, etc), and length of contract. The operator would be free to operate more than the minimum service. For such contracts the NBC would be able to tender like any other bus operator.

16.11 The Board should seek external assistance rather than attempt to build up their own bus planning expertise. But they should monitor the performance of replacement bus services, in order to ensure that bus contractors were meeting the contract specification.

16.12 The Board should certainly seek to involve local authorities in the planning of replacement bus services since these could affect the transport services which the local authorities have a duty to coordinate. (Replacement bus services could also affect the need for highway improvements.) But as the bus services would often serve more than one county, and the county councils could come under strong local pressure to put in additional stops, which might endanger overall timings and the effectiveness of the services in retaining contributory revenue, local authorities should not be given the responsibility for replacement bus services. In our view, the final responsibility for the replacement bus services should lie with the Board.

#### **Financing Replacement Bus Services**

16.13 Any replacement bus services which could not be operated at a profit should be financed by grant from central Government, channelled through the Board. This would, we understand, require legislation.

16.14 In the past local authorities have opposed bus substitution because, whereas rail services were provided at the expense of the national taxpayer, bus services required a contribution from the local ratepayer. If the replacement bus services were financed by central Government grant on known terms, local people would believe more readily that the replacement bus services were not a transitory phenomenon. Assurances would need to be given about the long-term future of replacement bus services. A specified quality of service should be guaranteed for the fixed period of each operator's contract, which should run for a minimum period of not less than 3 years. But the strongest assurance of continuity would be to subject the replacement services to an appropriate form of TUCC-type closure procedure. Doubt about the long-term future of replacement bus services is one of the most critical of local anxieties about rail closure proposals, and would need, in our view, to be tackled directly by the Secretary of State.

## CONCLUSION

1. Our report is concerned with railway finances, in accordance with our terms of reference. But we hope it will be considered in the context of wider transport and other policies. Indeed, we consider that to be essential if the grounds for providing financial support for the railway are to be made clear.

2. We see many opportunities to improve the efficiency, and reduce the costs, of the railway while keeping it at broadly its present size. Part I sets out our assessment of these opportunities. If they are seized with the necessary determination, the level of grant required in 1986—the final year of the Board's current Rail Plan—could, we believe, be lower in real terms than the level Ministers considered appropriate between 1975 and 1980. But getting the grant figure back to that level would involve transitional costs which could be substantial. We have suggested that, in the interests of all concerned, the Secretary of State should be prepared, as in 1982, to help the Board meet these costs.

3. In the longer term, we see yet further possibilities for improvements in efficiency and for cost reduction, particularly in the engineering function. On the other hand, the levels of investment needed to maintain the railway at broadly its present size and level of service are likely to increase in the latter part of this decade and the early 1990s. Even so, we doubt whether the amount of PSO grant required in 1992—mid-way through the 20-year period mentioned in our terms of reference—need be higher in real terms than the present level, provided the Board achieve the savings and efficiency improvements that are feasible.

4. The Secretary of State asked us to “open the doors” for examination of alternative policies and the second Part of our report is mainly directed to that end. It is clear to us that reductions in the size of the network will be required if the level of financial support for the railway is to be lowered substantially. Part II illustrates the financial and other consequences of a wide range of longer-term options for network size.

5. Our function, in the 7 months available to us, has been to mark out opportunities and options, not to develop them in detail. We hope that our work will provide the Secretary of State with the foundation on which he can decide future policy for the railway and that it will provide the Board with the material on which they can take early action to improve their finances. The sooner this can be done, the sooner an end can be brought to the present uncertainty about the future of the railway.





## THOSE WHO SUBMITTED EVIDENCE TO THE COMMITTEE

**Individuals**

Abbiss Mr J	Lansdown Mr H R
Bennett Mr R	Larkin Mr E J
Bowler Mr D F	Law Mr H
Brasher Ms D M	Longland Mr E H
	Loynes Mr P
	Lucas Mr J R
	Lund Mr G
Codling Mr R	
Coley Mr D L	Manton Dr D J
Conway Mr H P	Margetts Mr F C
Corser Mr R	Mickleburgh Mr T J
Croot Mr D J	Middleton Mr A C
Davies Mr J B	Nash Dr C A
Diandas Mr J	Nation Mr D
Dickinson-Chetham Mr A	Nice Mr E E
Dimond Mr J	
Eaton Mr R	Parker Mr W T
Edwards Mr J	Paxton Mr W
	Pinsent Sir Christopher
	Prosser Mr O H
Fearn Mr H	
Finlay Mr A	
Geake Mr D	Remmington Mr D E
Goodwin Dr P B	Roberts Mr M G
Gwilliam Prof K M	
Haly Mr J	Sabbage Mr J
Harman Mr R G	Skinner Mr M W G
Harrison Mr D D	Smart Mr D G
Hart Mr A J	Snell Mr J T R
Hart Mr T	Sutherland Mr K A
Heath Prof J	
Herd Mr R J	Trimby Mr L
Hillier Mr M J P	Trump Mr H J
Hills Prof P J	
Hodgson Mr A E L	Walker Mr & Mrs P J
Hutchinson Mr A	White Prof H P
	White Mr P R
	Wiggins Mr D
	Witham Mr J
Ibbotson Mr L W	
Jenks Mr R E	
Jones Mr T M	

**Organisations** (excluding the British Railways Board and its subsidiaries, and HM Government departments)

Arundel Constituency Labour Party, Littlehampton Branch  
Ashcott Parish Council  
Associated Society of Locomotive Engineers and Firemen  
Association of County Councils  
Association of District Councils  
Association of Metropolitan Authorities

Borders Regional Council  
British Aggregate Construction Materials Industries  
British Road Federation  
British Steel Corporation  
British Transport Officers' Guild  
British Transport Superannuitants' Federation  
Bus and Coach Council  
Butleigh Parish Council

Calm in London  
Campaign for the North  
Central Regional Council  
Central Transport Consultative Committee  
Chard Town Council  
Chartered Institute of Transport  
Cheshire, Clwyd and Gwynedd County Councils  
Chipstable Parish Council  
Coleford Parish Council  
Community Council for Somerset  
Confederation of British Industry  
Confederation of Shipbuilding & Engineering Unions  
Conservation Society Ltd  
Convention of Scottish Local Authorities  
Co-operative Union Ltd, Parliamentary Committee  
Corfe Parish Council  
Council for the Protection of Rural England, Lancashire Branch  
Council for the Protection of Rural England, Somerset Branch  
Council for the Protection of Rural Wales  
Crewkerne Civic Society  
Crewkerne Town Council  
Cyclists' Touring Club

Development Board for Rural Wales  
Development Commission  
Dumfries and Galloway Regional Council  
Durham County Council and Sedgefield District Council

East Coker Parish Council

Fife Regional Council  
Fivehead Parish Council  
Freight Transport Association  
Friends of the Earth Ltd  
Friends of the Settle-Carlisle Line Association

Glasgow Ecology Party  
Grampian Regional Council  
Greater London Council

Highland Regional Council  
Highlands and Islands Development Board  
Hinton St George Parish Council

Isle of Man Steampacket Co Ltd  
Isle of Wight County Council

Langford Budville Parish Council  
Life Line (Galloway Railway Reinstatement Group)  
London Amenity and Transport Association  
Lopen Parish Council  
Lydeard St Lawrence and Tolland Parish Council  
Lyng Parish Council

Mark Parish Council  
Misterton Parish Council

National Bus Company  
National Coal Board  
National Council on Inland Transport  
National Federation of Women's Institutes  
National Union of Railwaymen  
National Union of Seamen  
North Devon Railway Line Development Group  
Norton Fitzwarren Parish Council  
Nottingham Transport Group

Otterford Parish Council

Post Office  
Private Wagon Federation  
Puriton Parish Council

Railway Development Society  
Railway Development Society, Midlands Area  
Railway Industry Association of Great Britain  
Road Haulage Association Ltd  
Rural Voice

Salisbury & District Trades Council  
Scottish Association for Public Transport  
Scottish Council, Development and Industry  
Scottish Ecology Party  
Scottish Tourist Board  
Somerset Association of Local Councils  
Somerset Federation of Women's Institutes  
South of Scotland Electricity Board  
Southport Rail Travellers Association  
Strathclyde Regional Council

Trades Union Congress  
Transport 2000 Ltd  
Transport 2000, Avon Group  
Transport 2000, Cornwall Group  
Transport 2000, Derbyshire and Peak District Group  
Transport 2000, Devon Group  
Transport 2000, North Yorkshire Group  
Transport 2000, Somerset Group  
Transport 2000, West Midlands Group  
Transport 2000, West Yorkshire Group  
Transport Salaried Staffs' Association  
Transport Users' Consultative Committee, Yorkshire Area

Welsh Development Agency  
Welsh Railways Action Committee  
West Huntspill Parish Council  
West Yorkshire Passenger Transport Executive

## TERMS OF REFERENCE FOR R TRAVERS MORGAN &amp; PARTNERS

1. To examine critically, in relation to the foreseeable requirements of the rail businesses, the British Railways Board's present, planned and foreseeable future expenditure on engineering, including the implications for the railway's financial results of:

- (i) the criteria used in determining the engineering standards to be applied;
- (ii) the principles used in defining the work that needs to be done on the maintenance, renewal and improvement of track, signalling and structures;
- (iii) the principles used in defining engineering requirements for rolling stock;
- (iv) the method for identifying and evaluating other engineering works and projects, particularly those which involve more than one branch of British Rail;
- (v) the variation of track costs with axle load, speed, density of use and any other relevant operating characteristics;
- (vi) the variation of locomotive and rolling stock costs with different methods of operation, particularly speed, quality of track, and utilisation, type and age of rolling stock;
- (vii) arrangements for the design and procurement of equipment;
- (viii) the procedures for recording time and materials incurred on engineering activities, and for accessing that data for costing purposes;
- (ix) the role of engineering costs in the development of the business plans;
- (x) the dissemination of engineering cost information to line management and marketing staff;
- (xi) the use made of recent technological innovations, including computerised scheduling of rolling stock, crews and services;
- (xii) the methods of assessing track capacity, particularly in relation to the variability of train speed and types of signalling.

2. In the light of the foregoing, and other matters emerging from the Committee's work, to advise the Committee of any other engineering matters for critical examination and to carry out such work on them as the Committee may request.

## TERMS OF REFERENCE FOR PEAT MARWICK MITCHELL &amp; CO

1. To assist the Committee in obtaining such financial information as they consider necessary for the purposes of their terms of reference to supplement the material in Mr Butler's report to the Secretary of State, and in particular:

- (a) arising from the questions posed in paragraph 11.4.5 of Mr Butler's report, to examine the Railways Board's present and proposed methods for maximising revenue from rail services, including the promotion of services and the arrangements for the collection of revenue;
- (b) to examine and report on BR's cost and revenue forecasts and statements of net assets, with particular reference to the period 1981-86; and
- (c) to assist in the preparation of financial estimates of the likely effects of options for alternative policies identified by the Committee.

2. Building on the work on this subject done for Mr Butler's report to the Secretary of State, to provide the Committee (and the Department) with broad estimates of the longer-term financial savings, by business sector, likely to accrue to the Railways Board from the productivity and other efficiency measures planned by the Board or from the measures suggested in Mr Butler's report.

## GLOSSARY

<b>Action plans</b>	Detailed plans of action to which management is committed, setting out how the performance assumed in forecasts is to be delivered.
<b>Additional depreciation</b>	(see "Special Replacement Allowance")
<b>Ancillary income</b>	Net income from: Operational property (letting) Commercial advertising Station catering and trading Train catering
<b>APT</b>	Advanced passenger train
<b>Avoidable costs</b>	Those costs which can be identified with an activity or sector of a business and which would not be incurred if that sector or activity ceased.
<b>Backcheck</b>	Study designed to show actual results of a project against those forecast when it was approved.
<b>BRB or the Board</b>	British Railways Board
<b>BREL</b>	British Rail Engineering Ltd
<b>BSC</b>	British Steel Corporation
<b>CE</b>	Civil engineering
<b>CEGB</b>	Central Electricity Generating Board
<b>Contribution</b>	Contribution is measured by subtracting from the total revenue received the identifiable direct costs (train working and terminal costs) of the train services concerned. What is left is the contribution available towards covering the residual pool of indirect joint and common costs.
<b>Contributory revenue</b>	Revenue earned on other services as the result of travel on a given service or group of services. For example, those passengers who transfer from a feeder or a branch line to a main line in the course of a journey contribute revenue to the rest of the network as a result of their travel on the branch line.
<b>CTCC</b>	Central Transport Consultative Committee
<b>CWR</b>	Continuous welded rail
<b>DEMU</b>	Diesel-electric multiple unit (qv)
<b>Direct costs</b>	Those costs which can be directly related to an activity and which vary with output. In the railway, about 60 per cent of costs are direct, the remainder being infrastructure and administration costs.
<b>DMU</b>	Diesel—mechanical multiple unit (qv)
<b>DTp or the Department</b>	Department of Transport
<b>EEC</b>	European Economic Community
<b>EFL</b>	External finance limit. The limit imposed by Government on the funds which can be obtained by BRB from external sources, including grants and loans, within a single financial year. The limit covers non-rail activities as well as rail.
<b>EMU</b>	Electrical multiple unit (qv)

<b>Financial year</b>	The twelve months constituting the year of account of the Government, running from 1 April to 31 March. <i>NB</i> BRB accounts run from 1 January—31 December.
<b>Freightliners Limited</b>	A wholly-owned subsidiary of BRB. Its operations include the conveyance of containers predominantly by rail but with associated road and sea operations (see Chapter 3).
<b>GDP deflator</b>	The price index applied to the gross domestic product to eliminate the effects of inflation. In this Report an average index is used, rather than one based on specific dates in each year. The series used is as follows: 1975 – 2.288136 1976 – 2.011173 1977 – 1.791045 1978 – 1.604755 1979 – 1.417323 1980 – 1.2 1981 – 1.08 1982 – 1.00
<b>HST</b>	High speed train
<b>Indirect costs</b>	Costs which cannot be directly associated with an activity and which do not vary in proportion to output. In British Rail these relate mainly to infrastructure and administration.
<b>Infrastructure costs</b>	The costs of maintaining and renewing the physical structure of track, cuttings, bridges, tunnels, signalling equipment, overhead and third rail electric power distribution, plus the staff costs of signal operation.
<b>Investment</b>	There are three categories of rail investment: (i) <i>Capital Investment</i> Investment in new traction and rolling stock, terminal buildings, computers, offices and electrification is capitalised in BRB's accounts. The depreciation is charged to the profit and loss account and the interest on any money borrowed to fund passenger investment is allowed as an expense for the PSO grant. Capital investment is subject to the investment ceiling. (ii) <i>Revenue Investment</i> Infrastructure work, including track simplification, signalling, telecommunications, engineering depots, and engineers' rolling stock and plant, is charged to the profit and loss account, and any such passenger investment is allowed as an expense for the PSO grant. This investment is also subject to the investment ceiling. (iii) <i>Other Revenue Investment</i> (sometimes known as "revenue-revenue investment") A further category of investment, including life extension, modifications and refurbishment of rolling stock and renewals of infrastructure assets (including continuous welded rail), is also charged to the profit and loss account and is allowed as an expense for the PSO grant. The distinction between this and revenue investment is that "other revenue investment" is not subject to the investment ceiling.
<b>Investment and Financing Review</b>	Annual assessment of the financing and capital requirements of a nationalised industry over the period of the Public Expenditure Survey.
<b>Investment ceiling</b>	The limit imposed by the Government on the amount which the Board are allowed to spend on investment in any one year. The ceiling covers non-rail as well as rail activities.
<b>Level crossing grant</b>	Grant paid to the Board by the Department of Transport in accordance with EEC Regulation 1192/69 for the modernisation, maintenance and operation of level crossings. Up to 50 per cent of these costs may be met by grant.



<b>Light running</b>	Distance covered by trains which are not carrying revenue-generating passengers, freight or parcels, eg movement to and from fuelling and maintenance depots, or positioning the stock.
<b>Link</b>	Separately identified section of route
<b>Load factor</b>	The total number of passenger miles produced by a train or group of trains divided by the number of seat miles produced by that train or group of trains.
<b>L&amp;SE</b>	London and the South East
<b>Loaded train mile</b>	Mile travelled by a train available to fare-paying passengers, or actually carrying freight, engineering materials or staff.
<b>M&amp;EE</b>	Mechanical and electrical engineering.
<b>Merry-go-round trains</b>	Trains, almost all of which convey coal in high capacity air braked wagons, which are loaded and unloaded automatically without stopping at collieries, power stations etc.
<b>MMC Report</b>	Monopolies and Mergers Commission Report on London and South East Commuter Services (Cmnd 8046, October 1980).
<b>Motorail</b>	Brand name for services carrying cars in addition to passengers.
<b>Multiple unit</b>	Two or more passenger coaches coupled together, with a driving compartment at each end, at least one of the vehicles being motored.
<b>NBC</b>	National Bus Company
<b>NSA</b>	National Signalling Assessment
<b>Operating ratio</b>	The operating ratio of a service is the ratio of its direct costs to the revenue taken. For the work on Network Options (see Chapter 13) the operating ratio of a link is defined as the ratio of direct costs of services over that link, plus the infrastructure costs, to the link revenue.
<b>Opportunity level</b>	In the 1982 Rail Plan, the Board have prepared forecasts at two levels—the “opportunity” forecasts and the “more cautious” forecasts (see Chapter 12).
<b>Passenger miles</b>	The sum total of miles travelled by all passengers. So passenger miles = total number of passengers × the average length of their journeys.
<b>Permanent way</b>	Track and its substructure
<b>PMM</b>	Peat, Marwick, Mitchell & Co
<b>Prime user conventions</b>	Conventions used by the Board for allocating infrastructure costs between business sectors (see Chapter 9).
<b>Profit centre</b>	A separately identified revenue-generating activity which may consist of single flows of traffics, groups of flows or passenger services.
<b>PSO</b>	Public Service Obligation (see Chapter 1), imposed by a Direction given under Section 3(1) of the Railways Act 1974. PSO grant is grant paid by the Secretary of State to BRB in compensation for compliance with that Obligation, under EEC Regulation 1191/69.
<b>PTA/PTE</b>	Passenger Transport Authority/Passenger Transport Executive, set up under the Transport Act 1968 (see Chapter 2).
<b>R&amp;D</b>	Research and development
<b>Red Star</b>	Station-to-station parcels-carrying services (see Chapter 4).

<b>Reference case</b>	1992 forecast results of the railway on specified assumptions (see Chapter 13).
<b>Revenue investment</b>	See “Investment”
<b>Route mile</b>	Mile of route irrespective of how many tracks are laid on that route.
<b>RRE</b>	Renewal and Refurbishment Element of the PSO Grant (see Annex E).
<b>SAFGABS</b>	System Analysis for Grant Aid and Business Studies. System used by the Board to allocate infrastructure costs between sectors.
<b>Sensitivity analysis</b>	The calculation of the effect of key planning assumptions turning out to be better or worse than assumed in preparing a Plan.
<b>Speedlink</b>	Scheduled wagonload services (see Chapter 3).
<b>S&amp;T</b>	Signalling and Telecommunications
<b>SRA</b>	Special Replacement Allowance introduced in 1978 for the replacement of rail passenger assets. “Additional depreciation” is charged to rail operating expenditure to balance this allowance.
<b>Terminal</b>	Any passenger station or freight or parcels depot.
<b>TM</b>	R Travers Morgan & Partners
<b>Tonne miles</b>	The total number of miles travelled by freight traffic. So tonne miles = tonnes carried × average length of haul.
<b>Track miles</b>	Miles of railway track over the route. For example, a mile of route with four tracks laid on it is four track miles.
<b>Trainload traffic</b>	Bulk freight traffic carried in trains entirely devoted to one customer (see Chapter 3).
<b>TSG</b>	Transport Supplementary Grant, payable by DTp to local authorities in England and Wales in respect of local transport expenditure.
<b>TUCC</b>	Transport Users’ Consultative Committee
<b>Wagonload traffic</b>	Freight traffic carried in individual wagons, and drawn as part of a train serving several customers (see Chapter 3).

## SPECIAL PURPOSE GRANTS

1. *An Investment Grant*: In Chapter 8 we described how, in the attempt to keep within the PSO grant cash limit and the External Financing Limit, the Board had reduced its budgetted expenditure on the maintenance and renewal of assets. To avoid this, grant can be hypothecated to support investment.

2. The Department have, in fact, already moved in this direction. In 1978 they introduced a Special Replacement Allowance intended to finance a part of the Board's passenger investment requirements. In 1982, £177 million of the PSO grant was specially earmarked for expenditure on infrastructure renewal (the "Renewal and Refurbishment Element" (RRE)). The Board will lose grant if they seek to meet short-term revenue losses or cost increases by reducing expenditure on infrastructure renewal, and will need, therefore, to find other ways of making short-term savings.

3. We commend the introduction of the RRE and suggest that it should be developed in the following ways:

- (a) all investment, and not just infrastructure renewal, should be included;
- (b) the grant for investment should be separated from the grant towards the operating deficit.

4. The main advantages of an investment grant are that it would:

- Protect funds allocated for investment.
- Help the Board and the Department to distinguish between short-term fluctuations in operating costs and revenues, on the one hand, and the long-term investment requirements of the railway, on the other.
- Relieve the Board of any need to borrow to finance investment in the non-commercial railway (so removing doubts about the propriety of borrowing without confidence that sufficient revenue will be generated to repay the loans).

5. As mentioned in Chapter 8, a working party comprising representatives of the Board, the Department and the Board's auditors is currently considering the Board's accounting conventions (including the definitions of what investment should be charged to capital account and what to revenue). We find the present conventions unsatisfactory and confusing. The working party's work should now be completed urgently. Pending the outcome of that work, it would be premature to suggest the detailed mechanics of an investment grant. Meantime, we stress that, if an investment grant were introduced, the Budget should not become the focus for consideration of investment; those discussions should take place in the context of the exchanges between the Department and the Board on the Rail Plan and the Investment and Financing Review about the railway's long-term requirements.

6. *An Infrastructure Grant*: The main argument advanced in favour of the Government meeting the full cost of providing and maintaining railway infrastructure through an infrastructure grant rests on considerations of equity. Road users, it is argued, do not pay directly for the infrastructure they use, so road and rail would be put on an equal footing if the Government were to bear the costs of railway infrastructure.

7. We find this argument difficult to accept. While road users do not pay directly for the infrastructure they use, vehicle excise duty and fuel taxes are currently bringing in about 2½ times as much revenue as the roads cost to construct, maintain, administer and police. So if the railway operators were freed from meeting the costs of the infrastructure they use, the disparity in the terms of competition between road and rail would be increased, not diminished. (However some of the heaviest road vehicles may not be meeting their full share of road costs.)

8. It is sometimes argued in support of an infrastructure grant that its provision would enable railway management to operate rail services to strictly commercial criteria, without assistance from any other grant. In fact, however, the combined total of PSO grant and PTE payments is now about 30 per cent more than the full cost of the infrastructure, and associated administration, attributable to the passenger system. So it would not be possible to operate all the existing services on commercial lines if the only financial support available were an infrastructure grant.

9. Even if the subsidy requirement were broadly equal to the infrastructure cost, there would be strong arguments against a separate infrastructure grant. Decisions about what services to operate have direct consequences for infrastructure, just as decisions about the capacity and standards of the infrastructure affect the services that can be provided. For example, track and signalling layouts determine the frequency and mix of traffic that can be carried on a line; track maintenance costs are determined by the speed and weight of the trains carried; and electrification reduces operating costs but increases infrastructure

costs. To separate decisions on infrastructure from decisions on operations, as would be necessary if there were a separate infrastructure grant, would be likely to introduce an artificial and possibly harmful division into the planning and management of the railway. Business decisions should be taken with regard to their effect on the totality of revenue and costs.

10. *Grants towards meeting the cost of the Heritage and the Environment*: The achievements of the Victorian railway builders, and the heritage they left in industrial architecture, are matters of national sentiment and international interest. But for the Board, as custodians of this heritage, the legacy is an expensive one.

11. The Board own nearly 600 buildings listed as being of special architectural or historic importance; 6 per cent of all passenger terminals fall within this category. Under the Town and County Planning Act 1971 listed building consent is required before demolishing, altering or extending such buildings, and the owners are obliged to maintain the buildings in good repair.

12. The Board also have responsibilities for maintaining about 50 sites of special scientific interest; for numerous trees subject to preservation requirements; and, more generally, for many railway cuttings and embankments of value to nature conservation.

13. Maintaining this heritage is expensive. There are, for example, the direct costs of maintaining major listed buildings now over a century old, the administrative costs of obtaining necessary consents, the costs of delay in obtaining consents, and loss of revenue from passengers who may be less than enthusiastic about using outmoded structures. Although some grants are available, they are often tiny in comparison to the expenditure involved. We understand, for example, that the Historic Buildings Council decided in December 1981 that the total level of grant to the BRB in any one year should not exceed £100,000.

14. Although the Board have provided us with particular examples of the cost of refurbishing historic buildings, they have been unable to assess the total annual net costs of their obligations. Without doubt such costs fluctuate from year to year and are difficult to distinguish from the day to day maintenance costs of buildings and structures. Nevertheless, we are surprised at the Board's inability to estimate total annual costs, and consider that they should try to obtain reliable estimates.

15. Many of the Board's historic buildings make an important contribution to the local environment. Some local authorities already provide financial assistance towards the refurbishment of stations and other railway structures in recognition of their environmental value. In our view, this practice should be encouraged.

16. Even with local financial assistance, the environmental costs incurred by the Board may be disproportionate to those borne by other organisations. We suggest that further work is required to establish whether this is so and, if it is, whether a special grant towards the Board's costs would be justified.

17. *An Infrastructure Authority*: Some of the evidence we received suggested that the provision and maintenance of railway infrastructure should be separated from the operation of services. Responsibility for the infrastructure could be assumed by the Government itself, or it could be exercised by a subsidiary company of the Board, or a new and separate authority could be created. Whichever of these possibilities were adopted, the "infrastructure authority" would be distinct from the operators of the services (ie the Board).

18. For the reasons set out in paragraph 9, we do not think it would be appropriate to provide a separate grant for infrastructure. Accordingly, if there were an infrastructure authority, the operators of services would need to make contracts with it for the use of the network. Payments made by operators under such contracts should match the total infrastructure costs: any grant provided for railway services would be paid to the operators.

19. Contractual arrangements of this kind might strengthen the pressure to cut infrastructure costs. The operators of services would have a direct incentive both to minimise their use of the infrastructure, and to put pressure on the authority to reduce infrastructure costs.

20. On the other hand, we doubt if it would be possible to secure the close integration of business and infrastructure planning which is essential. Many of the disadvantages of a separate infrastructure grant also apply to proposals for a separate authority.



# **MINORITY REPORT**

**by**

**Alfred Goldstein CBE**



COMMITTEE ON THE REVIEW OF RAILWAY FINANCES

Minority Report by Alfred Goldstein CBE

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## I. INTRODUCTION

1.01 Our terms of reference require us to report to you on "options for alternative policies . . . to secure improved financial results . . . over a period of 20 years". In my reading of these terms, the key elements are the alternative policies and the long time scale. These determine where the main thrust of the report should lie.

1.02 We were not asked to address ourselves to an efficiency audit of the railway, nor simply to a search for economies, nor to expectations for its results in the next few years. Of course we had properly to consider these matters in formulating views upon the longer term. Also, you yourself asked us to assess the financial position in the short term. But I did not see that request as altering the nature of our terms of reference.

1.03 My colleagues differed and have felt it right to concentrate much attention on the short term and on the Rail Plan which is the railway's short term planning instrument. I had hoped that, in the outcome, the longer term would receive at least equal attention; but it has not.

1.04 In submitting this Minority Report I therefore wish particularly to urge upon you the importance of determining the long term task to be set for the railway and the financial support commensurate with it. Decisions for the short term can then be made consistently with that determination.

1.05 It is with regret that I have parted company from my colleagues. But the need for a long term review of and direction for the railway is so compelling that I can take no other course. In Committee we tried hard and for long, but could not, in the end, agree on important issues.

1.06 I can say at once that there is a good deal in my colleagues' report which I support, particularly in their reporting of engineering matters (Chapter 6) and of the network options. My dissent relates to their approach to the discharge of our task; the thrust and balance of their report; their views on 1986; the importance they attach to the 1975 level of PSO; and aspects of forward planning for the railway. Elsewhere there are some matters of agreement as well as points of difference in detail. In this report I cover only the important areas where I take a different view.

1.07 Little in this report will be new to my colleagues since most of the substance has been discussed between us.

1.08 The further contents of this report are as follows. In Chapter 2, I comment on the approach adopted by the Committee. Next, in Chapter 3, I discuss issues relating to the level of support provided by Government and the change that could flow from changed directions. Chapter 4 sets out concerns over the forward planning undertaken by BR and comments on their management. I comment on aspects of the Department of Transport's role in Chapter 5. Finally I give my principal conclusions.

1.09 In their report, my colleagues make no reference to the existing spatial pattern of rail services and rail traffic. In Appendix A\*, I therefore include diagrams as submitted to the Committee illustrating some of the spatial characteristics of the present railway. I have added a brief commentary on these diagrams. I also include a diagram on sector operating ratios.

1.10 In referring to paragraphs of my colleagues' report, I use the prefix CR; otherwise paragraph references are to paragraphs in this report. Reference should also be made to the Glossary in colleagues' report.

1.11 The outcome of the engineering consultants' study is being made available separately by my colleagues, and is therefore not appended here.

1.12 I fully join my colleagues in expressing warm thanks to our Secretary and his team.

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\* Included in Supplementary Volume.

## 2. METHOD OF APPROACH

2.01 My colleagues in the Committee saw the requisite approach to our task as sequential, with examination of and reflection upon the present position preceding any formulation of long term options. It was not until August that the Committee felt able to set in train the formulation and evaluation of those options.

2.02 Although our engineering consultants had undertaken a little preparatory work in anticipation of a requirement to consider longer term options, the timing of the Committee's decision curtailed the period available for the assessment of options and reflected the limited importance attached to this fundamental part of our work.

2.03 In the time available, I did not and do not think that my colleagues' approach was apt, let alone optimal. In terms of transport analysis the problem was neither new nor insoluble. Some options could and should have been developed in parallel with the examination of finances.

2.04 Another important difficulty was in my colleagues' approach to establishing a base position against which to evaluate possible changes of policy or practice. The last complete year on which to found our work was 1981. However, because of the major strikes in 1982 and the responses of BR management to those and other circumstances, it was felt by my colleagues that 1981 no longer provided a proper frame of reference.

2.05 The Committee therefore sought a base position in the outturn projected by BR for the immediate future. Unhappily, because BR were, and still are, in the throes of revising their corporate planning process (Chapter 4 below) and because, too, of the revenue uncertainties resulting from the suspension of service during strikes, no valid projections for 1982 or subsequent years were available from BR when we started our work.

2.06 Nevertheless, the Committee determined to use BR projections as a base, believing that they would become available in sufficient time. The Rail Plan covering 1982-1986 was received at the end of August but was not long thereafter withdrawn by BR and not re-presented until 1st November. Neither version was satisfactory in method (Chapter 4 below) and an adequate base position as sought by the Committee therefore eluded us.

2.07 The search for a base position in projections of the near future thus proved, as it nearly always must, to be the pursuit of a continually moving target. An entirely more useful approach for dealing with the longer term, and one commonly adopted in transport analysis, is to make estimates of revenues and costs for a date sufficiently well in the future so as to be consistent with the terms of the study, basing the estimates upon past costs and revenues and having regard to changes judged likely to occur over the period in question.

2.08 Such a projection cannot of course be a precise forecast for the particular year in question. It should be a sensible forecast of the future for the present railway and in this way it serves as a reference case against which to evaluate major changes of policy. The advantage of this approach is that it picks out the landmarks of policy above the mists of detailed particularities which must inevitably occupy attention when considering the near future.

2.09 In Part II of my colleagues' report, the long term options are in fact considered against two reference cases developed for 1992, a date midway through the twenty years which we were asked to consider. It is to these reference cases, rather than to the appraisal of the unendorsable 1982 Rail Plan, that I consider weight should be attached when reviewing the likely future scale of financial support required by the present railway.

2.10 I do not, of course, demur from the view that short term cost savings should be identified wherever possible. But there are at least the following three reasons why the longer term is essential as the focus for Government policy toward the railway. First, the nature of the railway operation is vast. In common with other large bodies, its organisation has great inertia. Any substantial change in scope and operational methods can be effected only over a fair period of time. Second, and more important in making rapid adaptation inherently difficult, is that the "hardware" of the railway, its vehicles, track and signalling, are typically long-lived having lives only rarely less than 25 years and often much longer. An intended material change needs some years to work through the system. Third, judgement on the short term must be informed by knowledge of the desired future direction. Yet, as is said in both reports, that direction is unclear. In short, emphasis on the next few years is not consistent with our Terms of Reference and is an emphasis I was not willing to adopt.

2.11 A further important difficulty in my colleagues' approach is in the insufficient analysis of railway revenue. The gap in this area was drawn to the Committee's attention very early on. Nothing was done to remedy the deficiency until work on long term options was authorised in August. As a result, BR's own short term projections of revenue have been subject to less scrutiny than I consider desirable. Also the work on revenue for the reference case has had necessarily to be concentrated on estimating changes in revenue attributable to service changes; and has accordingly been based on a single projection of the general level of demand without exploration of the uncertainties attached to that projection. Revenue effects of engineering/operational changes remained unexplored.

2.12 Further, I differ from my colleagues in the extent to which our considerations were directed at the 1982 Rail Plan, with a view to determining whether or not it represented a reasonable way forward. This Plan (announced as a 3-year Plan) covered the years to 1985 and also covered 1986 although with lesser and to me unclear level of commitment from management. In the end, for the same method-related reasons that caused the Plan to be unusable as a base position for assessing changes, I found it impossible to accept that the Plan projections were soundly based.

2.13 Nonetheless my colleagues felt able to take the figures in the Plan, to vary them to allow for the effects of future unsupported management initiatives, and thus (CR para 12.24) to gauge the financial outturn in 1986. My colleagues say that there are unmet major criticisms of the Plan (CR Preface Part I para 9, and para 12.14); I concur. They list (CR para 12.6) seven main criticisms of the Rail Plan methodology and state (CR para 12.14) that it cannot "... be regarded as providing a reliable forecast of the railway's likely financial results up to 1986". They recognise (CR para 12.21) that there are difficulties in "putting together figures" which are differently based. In the light of this, I fail to see how they can rest content to use the Plan forecasts as the underpinning for their conclusions about financial support up to 1986.

2.14 CR para 12.25 sets out colleagues' heavily qualified conclusion about BR's ability to keep the PSO grant requirement below the 1975 level in real terms. The second paragraph of colleagues' "Conclusion" sets out their particular conclusion, much less qualified, that the level of financial support by 1986 need not exceed the level in 1975 in real terms. For reasons set out in the next Chapter, I consider that there is little or no likelihood of so favourable a result.

2.15 I have one other observation upon the short term orientation of my colleagues. In CR para 13.1, introducing the work on options, they say that our terms of reference "included a requirement" to report "on options for alternative policies ... over the next twenty years". In fact this was the *only* matter upon which we were required to report by our terms of reference. Our respective perception of the essence of our task differed and that may lie at the root of the difference between us.

### 3. FINANCIAL SUPPORT FOR THE RAILWAY

#### People and Subsidy for Rail Travel

3.01 Railways are a means of transport. Though each form of transport has throughout history created cultural and social change—and railways particularly so—each has been overtaken, in some or all aspects, by successors. The attachment many of us have for the present railway is not reflected in the fares we are prepared to pay, since these fares do not reflect the full cost.

3.02 As a result, part of the benefit obtained from public subsidy of railways is intangible. People's individual preferences are involved. Often such preferences are not or cannot be directly articulated. Often they are held without full recognition of the cost involved or of the alternative opportunities for spending the money. Yet people do hold preferences. And there can be no way of rationally aggregating individual orders of preference to provide a unique community preference (a technical impossibility often insufficiently recognised).

3.03 So if taxes are to be used for rail subsidy, Government has to judge the direction in which it wishes the recipient of them, ie BR to develop. Transport undertakings cannot be expected to be the best judges of the public good. That role—in the context of subsidies—ultimately rests with Government. But in making such judgments, Government should clearly articulate the objectives; I fully concur with my colleagues in this.

3.04 I also generally concur with colleagues' views on "Travel and Subsidy" in the Preface to Part II of their report. However, if subsidies are to be provided, there is an important omission in colleagues' criteria for grant (CR para 11.1).

3.05 One of the most important attributes of any widespread subsidy is that its effects should not be regressive: that is to say that overall they should not provide advantage, from general taxation, to those who are already among the better off economically. In my view this is a question of equity and efficiency. That it is a matter of relevance to my colleagues also, is indicated by their reference to progressive subsidy (CR para 11.17).

3.06 In my view, travel subsidy systems should therefore be either progressive or neutral. There is no evidence that current rail subsidies satisfy that requirement.

3.07 I must make clear that, like my colleagues, I do not regard travel subsidies as an effective means of addressing income redistribution, were that to be one's aim.

3.08 I have referred above to CR para 11.17. They there outline the possibilities for providing financial support to the railway indirectly, by providing grant aid directly to the traveller. I urge that such a scheme be studied much more fully.

3.09 Colleagues also refer (CR para 11.10) to the possibility of relating the grant paid to the amount of travel undertaken on the railway. This could be a convenient way of building financial incentive into the grant system, since BR could, by carrying more passengers, earn more grant. Such systems also merit full study.

3.10 I do not concur with my colleagues' view that it would be necessary to adapt such a system so that the level of grant in a particular year can be separately decided (CR para 11.11). Whatever the grant arrangements, the facts are that public funds have to meet the difference between costs and revenues. Announcements of lesser grant may place pressure on the railway but ultimately the outturn bill has to be paid.

3.11 The actual financial support thus cannot be determined by the then Secretary of State in a particular year, but is determined over a longer period by the general requirements set for the railway, and is affected from year to year by economic circumstances, by management efficiency and by workforce productivity.

3.12 The fact is that BR have been and are a very large consumer of taxpayers' resources (CR para 1.4, footnote) and the amount has grown greatly over the last decade. To what degree this consumption should continue into the long term is the crucial issue to be decided.

3.13 There is an implication in my colleagues' report that the important test is whether or not the grant in a particular year falls within the 1975 value in real terms. However, I have seen no evidence that the

1975 value has any intrinsic significance, and below I show that 1975 was in any event an untypical year. I therefore dissent from the proposition of considering the future in the context of that single year in the past.

3.14 The issue is not whether the financial position of BR will in the short term be such as to require less than the 1975 level of support. The real issue is what size and quality of railway should the nation decide to support, having regard to the many demands on taxpayers' moneys. The reference cases and options in Part II of my colleagues' report will hopefully assist consideration of that issue.

3.15 However, my colleagues do not share my view of the priorities and have given much attention to the period up to 1986, in the context of the 1975 grant level. Not only is this the wrong emphasis, but their conclusions are in my view poorly founded. I therefore next discuss their analysis.

### **Support for the Present Railway**

3.16 In CR para 12.25, colleagues consider it to be within BR's ability by 1986 to match the 1975 PSO grant in real terms, subject to important, indeed crucial, qualifications. However, in presenting their Conclusion, they qualify their belief in the practicality of that achievement only by the need for determination. The flavour of that conclusion is in my view unrealistic.

3.17 The conclusion has been reached by taking the 1982 Rail Plan opportunity forecasts and adjusting them by £170 million (CR para 12.24) of betterment arising from further cost reduction initiatives.

3.18 The betterment adduced by colleagues depends in large measure on the further initiatives worth £147 million advanced by the Board's Chairman on 4 November, on the day following his attendance before the Committee. Later in the month the Chief Executive advised that the initiatives would feature in the 1983 Plan only if supported by Action Plans. He pointed to the need to recognise that there were many problems to be overcome before the savings could be realised.

3.19 In my opinion the substance of the advice is no more than that the Board have in mind further efficiency initiatives. I would expect them so to have. It is not however sensible to take account of such possibilities when considering the 1986 outturn in 1982. Other things—not least the method of its preparation—may very well change before the 1983 Rail Plan is available for examination. Plans are (or ought to be) prepared in the round and should be considered in the round. The Plan is not a Lego kit to which arbitrary additions, taken from possible future plans, can be made.

3.20 There is a further point concerning the realism of financial improvement in the Rail Plan 1986 deficit. This is that the Committee received no satisfactory advice from BR about the net savings realisable from manpower reduction (CR para 9.19). Allowance for wage drift and unit wage increases were not explicitly treated and indeed this was one of the weaknesses of the Plan reported by our financial consultants.

3.21 My colleagues have, in arriving at their estimate of the PSO and SRA in 1986, used the opportunity forecast revenue estimates for that year; even though in CR para 12.16 they state that the likelihood of revenue lower than the forecast is significantly greater than that of revenue higher than the forecast.

3.22 I consider that one should in principle use a revenue estimate which is thought to have the same chance of being too high as it has of being too low: one can call it the expected revenue. My colleagues however have used a higher figure.

3.23 In the light of this, their advice to the Board some paragraphs earlier (CR para 12.8(a)) merits comment. There they advocate basing the Plan on the most likely course of events but with "due conservatism about demand assumptions". But in making their own estimates they have, far from using a conservative revenue forecast, used one which they believe is more likely to be high than low. It follows that the PSO requirement that they estimate is less than the expected value.

3.24 In considering the likelihood of the railways achieving better results in future while continuing under the 1974 Direction I have thought it right to consider not only the possibilities of particular savings but also the past pattern of performance and to relate it to future projections.

3.25 In Figure 3.1, I therefore show the total costs of the railway, total revenue from passengers and freight, and the resulting deficit, for several years. For years 1975 to 1982 the figures are taken from my colleagues' report, and prior to that are from the BR's accounts. The projections 1983 to 1986 are taken

from the 1982 Rail Plan (October Revision) and from Chapter 12 of my colleagues' report. The figures for the 1992 reference cases are taken from Part II of that report.<sup>1</sup>

3.26 Previous BR forecasts of the deficit are shown in Figure 3.2. With the exception of the 1974 forecast made at a time when prices were subject to Government restraint, projections have consistently shown better results than have eventuated. The current Rail Plan projection likewise shows a reducing deficit, and my colleagues' projection does so more markedly. To achieve it, the long term revenue and cost trends would need to be reversed. Also, as shown in Figure 3.3, load factors need to be sharply increased and the reduction in employees very appreciably accelerated. The £147 million involves a reduction of some 14,000 posts (CR para 9.12); altogether colleagues' £220 million could involve some 24,000 manpower reductions by 1986, over and above those contemplated by the 1982 Rail Plan (19,000). The money values attached to such manpower savings made no allowance for wage drift,<sup>2</sup> unit labour cost increases, transition costs and industrial relations settlements, all of which are bound to accompany such extensive and rapid manpower reductions.

3.27 In current economic circumstances the achievement of such manpower savings by 1986, within a railway broadly as at present, seems to me most unlikely. The actual achievement of net annual cost savings in 1986, consistent with the foregoing figures or any figure of similar magnitude, is in my view implausible.

3.28 The deficit shown in Figure 3.1 is not exactly the same as the PSO because of other grants, freight profits or deficits, and interest charges. I have therefore marked the value in 1975 of the PSO grant (augmented by a notional SRA element) as used by my colleagues (£757 million CR para 12.24). I also show the 1986 Rail Plan projection of PSO (including SRA) (£800 million, ie £887 million less 10 per cent for PTE) and the lesser 1986 projection suggested by my colleagues (£650 million) both taken from CR para 12.24.

3.29 I have also had regard to the detailed assumptions necessary to realise the cost reductions in reference case R2, for which the approximate passenger deficit is also shown on Figure 3.1.

3.30 In the light both of my appraisal of my colleagues, approach, and the other considerations described above, I am satisfied that the attainment of the 1975 level of support by 1986 cannot be regarded as a practical proposition.

3.31 In the longer run I consider that, notwithstanding the uncertainty of the revenue forecast, the results for reference case R2 can be taken as a reasonable indicator of the requirement for financial support. And my overall advice is that with the present size of the railway, the likelihood is that it will be many years before the annual value of PSO and SRA can be expected to be stabilised, taking one year with another. By 1992 I would expect this to have been achieved at between £800 million and £900 million. Annual investment levels would be substantially greater than present day values.

3.32 There is one other point to be considered in Figure 3.1. This is that the financial support in 1975 was abnormally high, one of the important reasons being Government restrictions on fare increases at that period. I accept the difficulties in making comparisons prior to 1975. Nonetheless, my colleagues do not, I believe, paint the most useful picture by taking the 1975 level as the reference figure for consideration of future support levels. The fact is that the need for financial support has shown a marked upward trend for over a decade.

3.33 Nor is there intrinsic merit in the 1975 support level. In the White Paper on Transport Policy in 1977 (Cmnd 6836) it was said that a broad financial objective was to contain and *then to reduce* (my emphasis) the subsidy for the operation of passenger services and I understand that successive Ministers of Transport have been in accord with that broad objective (CR para 10.9).

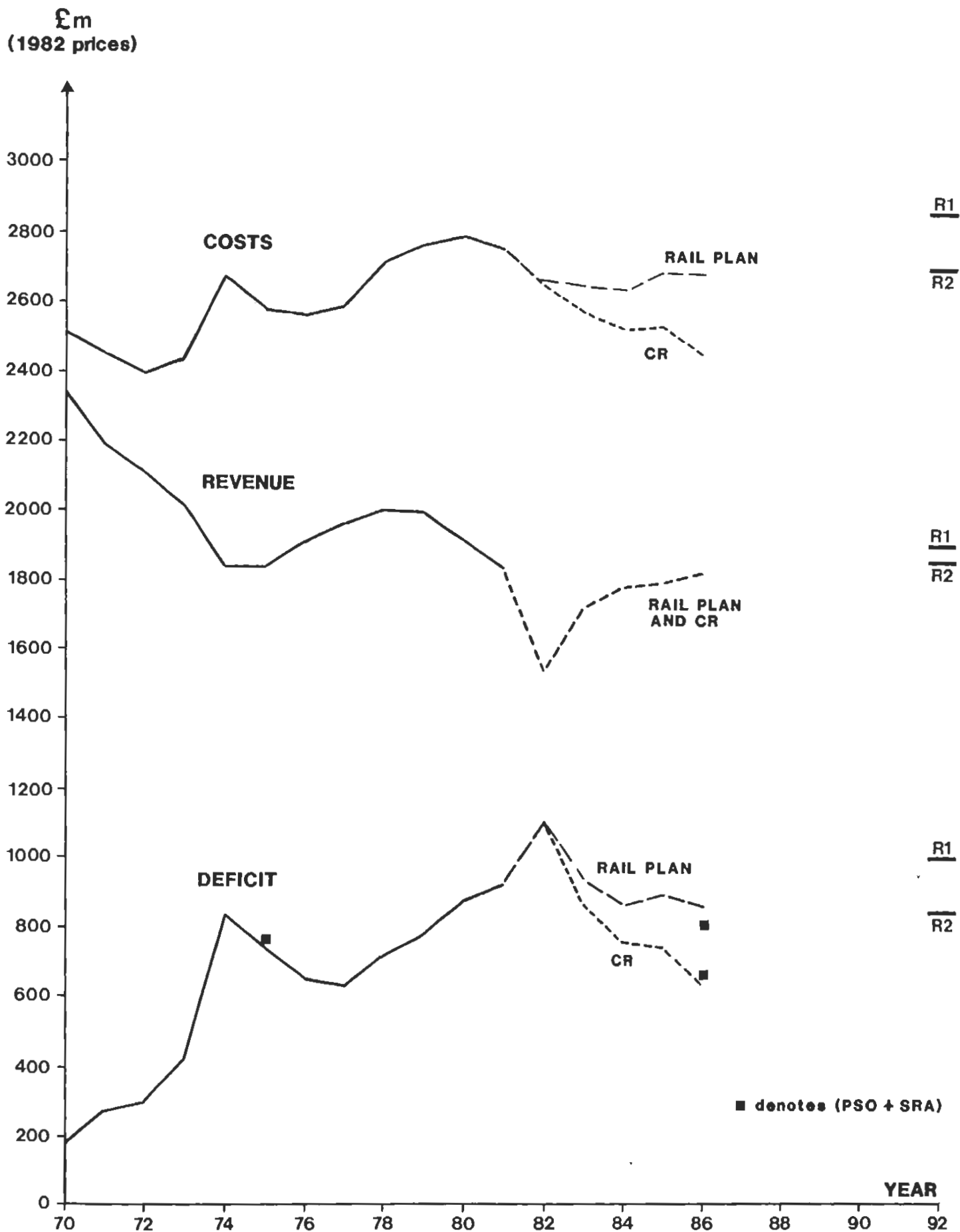
3.34 None of the foregoing is to gainsay the value of increasing efficiency as a means of improving the financial position of the railway. The engineering study has flagged significant possibilities, for example in track renewal and maintenance and in vehicle maintenance; the financial consultants have identified other possibilities and the Board have their further initiatives in mind. All the possibilities should be pursued both within the railway and by joint internal and external teams: but their realisation is bound to take time, and will have investment and revenue consequences as well as requiring great co-operation from the railway's labour force. It would therefore be most imprudent to look for early and large financial improvement.

<sup>1</sup> (i) The figures for years prior to 1975 are based on BR's previous financial structure and accounting base, and therefore are not strictly comparable to those of later years. However, that would not affect the general trends shown.

(ii) The figures for 1975 to 1981, taken from my colleagues' report, cannot readily be derived from the Annual Accounts. Also, I have subtracted the Freight Transitional Grant from the costs for the years 1975 to 1977.

(iii) The figures for R1 and R2 are as shown in my colleagues' report, with adjustments to allow for ancillary income and interest payments.

<sup>2</sup> Since 1970 the average rail expenditure per employee has increased by about a third, in a period when BR and the NUR have reported a reduction in wage rates relative to the national average.



**Figure 3.1 Railway Finances 1970 - 1992**  
(footnote 1 para 3.25)



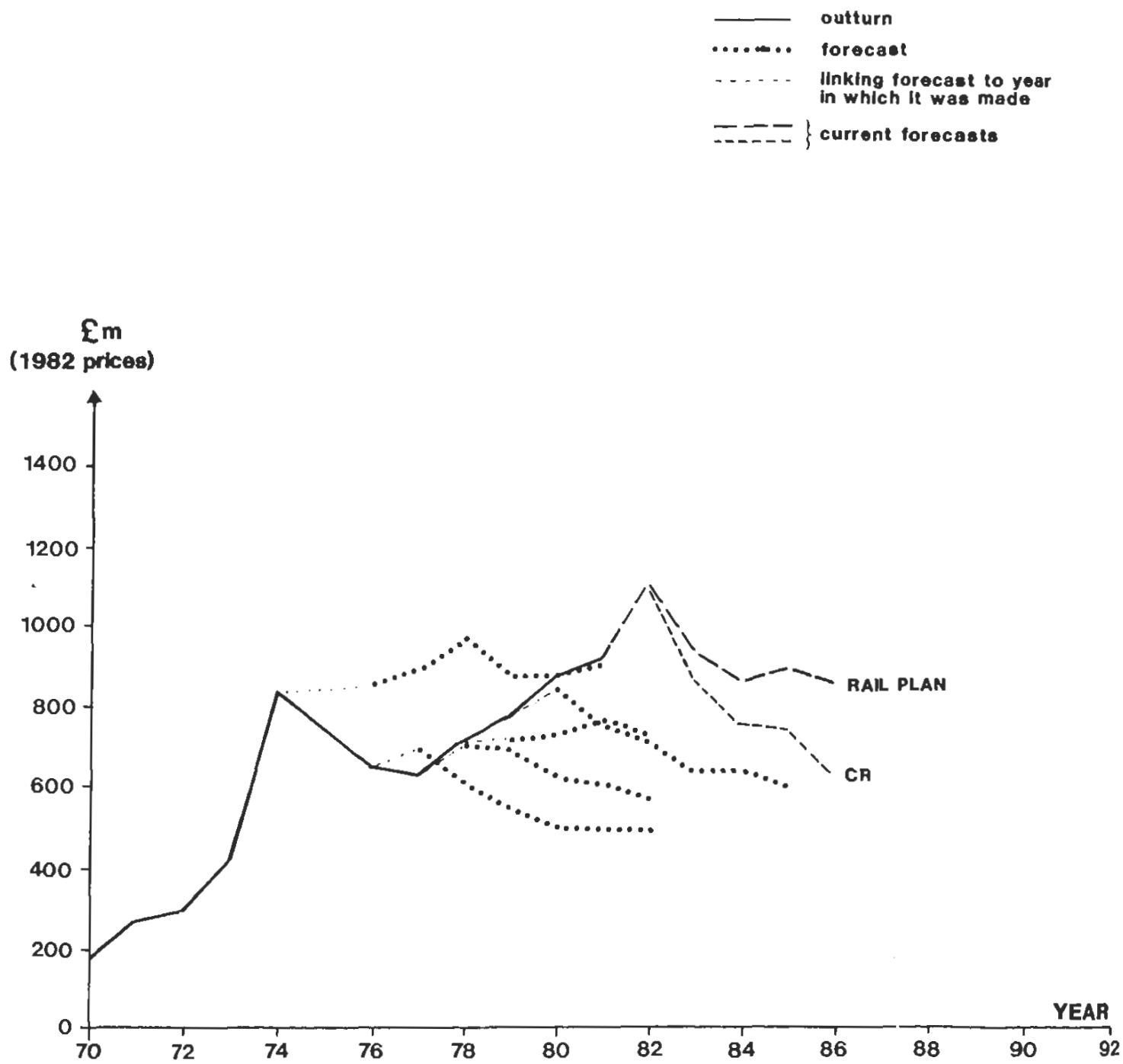
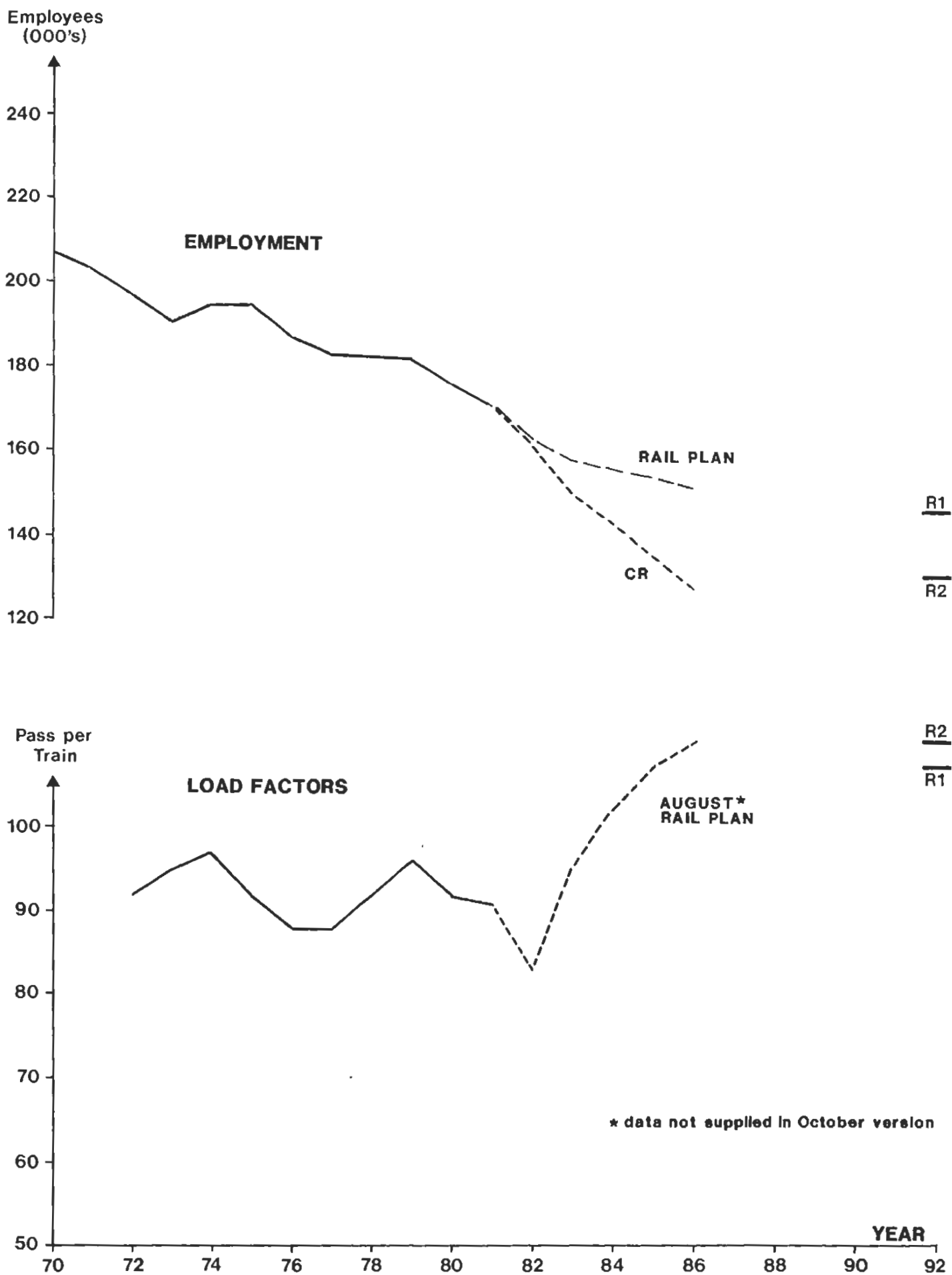


Figure 3.2 Forecasts 1974 - 1982 of Deficit



**Figure 3.3 Selected Data on Railway Operation 1970 - 1992**



## **Pricing Opportunities**

3.35 In the foregoing, the assumptions have been that only quite small fare increases in real terms would arise in future years. I wish to draw attention to the possible scope for significant real fare increases in the L&SE sector; I agree that there is little scope in other sectors.

3.36 This is the least elastic market served by the railways, because it is in this sector that railways offer the greatest service advantages over competing modes. Yet it is precisely in this sector that BR provide most in terms of season ticket discounts to the passengers who constitute their peak period traffic and who therefore incur high costs of service provision (because numbers of trains and staff numbers are determined by the peak requirements).

3.37 Many commuters travel long distances and the discounts they can obtain, together with the general effects of subsidy, and of faster services, actively encourage such travel so that the effect of London on the life of small communities is felt at ever greater distances.

3.38 The view of season ticket discounts proposed by my colleagues (CR para 2.18) should therefore be drawn more widely so as to consider the full range of effects of subsidy on long distance commuting.

3.39 My colleagues distinguish between revenue increases from season ticket discount reductions and increases from real fares generally. This distinction should not obscure the fact that the discount reduction itself would constitute a real fare increase for a large number of passengers.

3.40 By whatever means a real fare increase were imposed, there is little doubt that it would yield a net financial improvement (CR para 2.22). Estimates of elasticity of demand have typically been based on relatively small past changes. And the large GLC increase this year was untypical of increases since it followed an earlier large reduction. In my judgment, however, it is likely that revenues could be increased, and that there would be some corresponding cost savings as passenger numbers fall and train services reduce. I would estimate that net improvements of as much as £100 million a year might be realisable in the longer term.

3.41 But the very reasons which make the market inelastic would also give rise to significant levels of road congestion (CR Part II Preface para 5 and 6) and to questions of interface between BR and LT public transport services. Radically increasing the fare levels on the BR L&SE network would have ramifications for the whole balance of transport in the Region. There could also be longer term effects on the distribution of employment as between London—its centre in particular—and the rest of the SE Region.

3.42 While therefore there is certainly opportunity for major financial improvement in BR by radical pricing changes in the L&SE sector, it would in my view be wrong to go forward with other than modest increases without undertaking a very far reaching examination. I believe that such a fundamental examination should be attempted.

## **Future Network Opportunities—The Options**

3.43 Two reference cases and seven options are reported by my colleagues in CR Chapter 13, each of them tested using the cost and revenue model developed by our engineering consultants, who were assisted on the revenue side by our financial consultants. The model is the outcome of the approach described in para 2.07 and 2.08 above, and is intended to highlight the landmarks of different policies.

3.44 The Committee did not set in train work on the options at the earliest possible time (para 2.01 above) and it was therefore late in our deliberations before the analyses were available; and my colleagues have necessarily reported them with relatively little comment. I am in a similar difficulty but the options are in my opinion the *prima facie* discharge of our task and some further observations may be of assistance.

3.45 Though colleagues correctly state (CR para 13.6) that reference case R1 is closer to the present day railway than is R2, it would be erroneous to assume that R1 does not adopt a number of efficiency measures. It does: for example R1 has 18,700 less in the workforce than in 1982. The fact is that R1 is an estimate of today's railway extended to 1992 with some efficiency measures; R2 is today's railway stretched even further in efficiency terms; having for example 33,000 less in the workforce than in 1982.

3.46 In examining the options, I believe it is helpful to consider them as progressively removing elements from BR's network and services; coming at length to that most altered network which represents a commercial railway (which because it is the most altered is also that most subject to uncertainties of estimation). The OPS sector has been split into two parts and in what follows I refer to them as the Provincial and PTE sectors. The summary results of the options are supported by more detailed analyses in the study output provided separately.

3.47 The option analyses include figures sector by sector: these are necessarily approximate. However for reference case R1 it is interesting to note the estimated level of financial support to each of the sectors. Per passenger mile the figures are:

L&SE	Inter-City	Provincial	PTE	Overall
3.0p	2.6p	22.6p	10.5p	5.5p

A similar pattern and not very different figures would obtain today.

3.48 The first important point to note is that substantial savings can be made by some reductions in services and minor reductions in overall network. Thus in Option C1, the least altered supported railway, only 100 route miles are withdrawn from the system yet, compared with reference case R1 (which has a similar efficiency level), there is a saving of the order of £160 million a year.

3.49 This arises from the withdrawal of the least remunerative services on the network. Some 20 million train miles a year cease to operate with a loss of some 800 million passenger miles—some 40 persons per train. The revenue loss is concentrated almost entirely in the Provincial sector. In that sector revenue falls by some £34 million and costs fall by some £251 million, the reduction in direct costs alone being £95 million. The overall financial improvement of £160 million is less than the difference between the change in total cost and the change in revenue because of the reallocation of some indirect costs to the other sectors. The overall subsidy per passenger mile in Option C1 is 4.7p.

3.50 The significance of an improvement in finances achieved in this way is that it should be achievable earlier than more substantial changes. If any change of direction were therefore to be contemplated, service withdrawals as in C1 would be a sensible start and could also be made as the first step in a more radical change.

3.51 An interesting comparison can be made between reference case R2 and Option C1. These show closely similar overall financial outturns although R2 carries some 4 per cent more passenger miles. R2 achieves its savings through high pressure on efficiency with manpower reductions and other savings. C1 achieves the same savings by withdrawing the least remunerative services. There can be little doubt that C1 could be implemented earlier than R2, although R2 is of course of greater benefit as far as the railway's customers are concerned.

3.52 Option C2 continues the process of withdrawing unremunerative services but also eliminates parts of the network with the worst operating ratios. Services would cease on some 1760 route miles compared with the reference cases. These are mainly in the North of Scotland, Wales, East Anglia and the South West.

3.53 The reduced network and services cause a loss of some 3 per cent of Inter-City and 4 per cent of L&SE revenue but most of the loss is in the Provincial sector which loses 60 per cent of revenue. However, when compared with Option C1 the absolute loss of Provincial passenger miles is a little less than half of the total passenger miles reduction.

3.54 Overall in Option C2, less than 10 per cent of all passenger miles are lost compared with the reference cases, and the freight reduction is negligible. Yet for this still relatively small degree of change, the financial outturn is improved by over £300 million a year (C2 cf R1). The average financial support per passenger mile falls from 5.5p in reference case R1 to 4.2p in Option C2. In the most altered sector, the Provincial sector, the change is from 22.6p per passenger mile to 16.3p.

3.55 Option C2 disconnects from the railway some 11 communities of greater than 25,000 population. Option D reinstates service to those towns by retaining some 90 route miles and some 2.5 million passenger train miles a year.

3.56 The rationale of Option D merits further comment. Many people feel much satisfaction in being on the rail network, even if they do not use the railway often. That satisfaction would be the motivation for adopting an option such as D rather than C2. But "reconnection" onto the network does not require maintenance of the existing pattern of service. An alternative would be to subsidise the physical reconnection but to provide only a minimum shuttle service to the main network (say two return trips per day). If that were done, the additional annual costs would become quite minor, some £3.5 million against £17 million. BR could of course run additional services on the subsidised infrastructure to meet demand, provided the extra revenue met the additional direct operating costs only.

3.57 Option C3 makes a more radical change to the railway network, disconnecting appreciable areas of the country (CR Plan C3 cf Plan R1) while retaining the basic structure of main lines. On this network Inter-City and L&SE passenger miles are still reduced by under 10 per cent compared with the reference

case but PTE passenger miles have fallen by 17 per cent and Provincial passenger miles by 70 per cent. The overall subsidy per passenger mile falls to 3·7p.

3.58 If reductions beyond C3 were required, it becomes difficult to define a network which maintains services to the major population centres and a recognisable route structure other than a few principal corridors. Beyond this point (C3) all retained services are at least covering their direct costs and making some contribution to infrastructure and administration costs. The size and financial performance of a more reduced network would depend on how these costs can be reduced for the smaller scale of operation.

3.59 Option A, the commercial railway, represents the most substantial change and the model used is therefore being worked very hard, and cannot predict as well as it can for the less radical changes. The network represented is probably as slim as one could practically go while retaining a meaningful system. Also, the results are sensitive to small changes in large numbers. To estimate firmly whether the Option A railway could in fact be a commercial proposition, one year with another, would require a good deal of further work.

3.60 The value of the test is that it illustrates the drastic change that would have to be considered before there could be a realistic prospect of a railway without financial support.

3.61 What is also interesting in Option A is the retention of the network to the south and east of London. Just over half the surviving passenger miles are from the L&SE sector with the balance being Inter-City.

3.62 When a more complete L&SE network is added in Option B, catering for about 75 per cent of the L&SE passenger miles in the reference case, the passenger deficit rises by only £40 million a year for a gain of nearly 2 billion passenger miles.

3.63 In the foregoing I have not commented upon the results for freight. This was not modelled to the same extent as passenger traffic and I add emphasis to the concluding sentence of my colleagues para 13.24. Only in Option C1 was freight found to be unprofitable. As the size of the network was reduced, the profitability of freight traffic was found to increase, both in total profit and as a proportion of costs. In the extreme case of the Commercial Railway, Option A, freight was found to generate revenue 40 per cent greater than its total costs. More detailed analyses would be necessary to establish firmly that this general trend would obtain in practice.

3.64 There was insufficient time to develop different kinds of high investment options. But the result of the one investigated indicated, as my colleagues point out in their para 14.20, that a combination of certain network options with increased investment could prove beneficial. The identification of the optimum investment level for any particular option would require detailed study. Ultimately, if change is desired, the trade-off may be between a larger railway operating under severe investment constraints or a rather smaller railway at a high quality of service to the customer. The latter, involving higher investment, could provide benefits when viewed on a national basis, not least in employment resulting from such investment.

3.65 The work on the options illustrates the value of the kind of analysis attempted. The model could not be developed to as advanced a level as one would desire, and it was only as a result of experience in analysis of overseas railways that it was possible to develop a usable model in the limited time available.

3.66 I consider it would be of considerable value to develop further a model of this kind, perhaps using this one as a foundation, so that dialogue could be informed by output which can be obtained quite quickly. The great advantage of facilities provided by models of this kind is the quick availability of consistent answers to questions of the "what if..." kind. Whilst the absolute level of accuracy cannot be precise, consistent and comparative evaluation of the outcome of different assumptions is a powerful tool. Trends can be illustrated, cause and effect illuminated, and judgment informed.

3.67 All the options (including the reference cases) illustrate particular directions for the future railway. Government has to choose that direction. Once that choice is made, and if it differs from the status quo, a great deal of further technical work will be required to work out the steps required to get from "here" to "there". The timing of investment or disinvestment, changes in policies and operational procedures, alterations in organisation and management are examples.

3.68 But the choice of direction should be made first. To await more detailed work would delay major and necessary decisions simply because there is scope for eliciting better particulars.

3.69 Moreover the railway is an ongoing concern and one cannot "stop the clock" whilst planning the future railway. Many shorter term decisions are pressing on railway management. Existing uncertainties about the longer term militate against making such decisions in a timely, efficient and productive way. Such short term decisions must be made, and they should be made consistently with the direction chosen for the development of the future railway.

## 4. BR PLANNING & MANAGEMENT

### Rail Planning

4.01 Most businesses need some form of planning. In the railway's case the organisation is so extensive that there can be no doubt of there being such a need, even were planning not a statutory requirement.

4.02 The activity of planning is a major function of management and is undertaken for different time horizons for different purposes. For assessing some requirements—fleet renewal for example—BR consider time periods of 20 years or more; there is also a formal set of investment proposals spanning 10 years. At the other limit there is the budgeting for the next year's activity.

4.03 For some years past BR has produced Rail Plans covering several years ahead. This appears to have developed as a basis for discussion of financial requirements with Government, and since 1978 has been described as the Corporate Plan. As illustrated in Table 10.1 (CR) there has been considerable disparity between the projections made and the results actually achieved.

4.04 In 1981 the Board engaged Price Waterhouse to review the corporate planning process. It was also considered in Mr Butler's report to the Secretary of State in 1982. Major weaknesses are set out by my colleagues in CR para 12.2.

4.05 The last Corporate Plan was produced in 1980 for the years 1981–1985. The Plan due in 1981 was I understand abandoned by the Board, who, in the light of the Price Waterhouse proposals, embarked upon a revised planning process. The fact that the Plan could be completely dropped is perhaps the best testimony of the usefulness of the Plan to the railway itself.

4.06 A revised planning process has yet to be fully implemented. The Rail Plan produced in August 1982 for the period 1982–1986 incorporated only some of the intended changes—principally that there was formal commitment to it by regional, functional and sector management.

4.07 Prior to our receipt of the Rail Plan, we met with Board members who assured us in the most confident terms, that the new document would remedy the weaknesses of previous plans. A few days' examination of the Plan showed that it was unacceptable for its intended purpose. A detailed appraisal by our financial consultants confirmed that it had serious weaknesses in methodology and content (CR para 12.5).

4.08 The Plan was then withdrawn by the Board with the intention of producing a revised version to meet the criticisms. Our financial consultants spent some time alongside BR during this process so BR could be in no doubt as to the nature of the criticisms. The revised October version of the Plan reached us on 1 November and was found still to be unsatisfactory in major respects.

4.09 The one certain conclusion that can be drawn from this is that the planning process within BR is in a state of severe disarray. The Board welcomed the appointment of the Committee, yet it was unable to put before us any satisfactory Plan covering the period immediately ahead.

4.10 The Board's collective view on further initiatives was subject to different individual emphases. As I mentioned in Chapter 3, the Chairman produced on 4 November a, to me unexpected, schedule of extra savings of £147 million (which my colleagues thought robust enough to be given some prominence). On 12 November, the Vice Chairman wrote expressing some doubt about achieving some £60 million of extra savings suggested by our financial consultants. On 22 November the Chief Executive wrote to place some considerable qualifications on the £147 million savings.

4.11 My colleagues set out seven main criticisms of the Rail Plan (CR para 12.6). I would add that although BR told us that all elements of the Plan were "supported" by management responsible for implementation, I was unable to ascribe precise meaning to that term, particularly in relation to revenue forecasts which are influenced largely by factors outside BR control. Also, our financial consultants reported that they were unable, in discussion with BR, to establish the basis for the revenue estimates finally adopted.

4.12 In CR para 12.7 colleagues criticise the concept of opportunity and more cautious forecasts. I concur. I also agree with my colleagues' view on the importance of contingency planning. However, I doubt if their proposal for the preparation of a single Plan forecast is the right way ahead, because it does not provide a suitable framework for the assessment of uncertainty.

4.13 I consider that BR have seriously confused a number of different elements in their attempt to introduce into their planning both commitment to deliver and recognition of uncertainty.

4.14 Future costs and future revenues are each subject both to management action and to external influences, though to varying degrees. In principle therefore, four major outcomes should be assessed:

Management Achievement	External Factors
High	Adverse
Low	Adverse
High	Favourable
Low	Favourable

I judge that in the last year of the Plan the range between high and low costs might be of the order of 10 per cent and the range of revenues 15 per cent. In the current forecasts the differences between opportunity and more cautious forecasts are about 2½ per cent for both revenue and expenses.

4.15 I am particularly concerned by the approach to revenue forecasting. There is lack of rigour both in relating traffic demand to service and pricing assumptions, and in distinguishing the effects of marketing initiatives from the effects of changes in competition and other external factors. Competition from coach travel has been belatedly recognised as a threat, yet we have seen little articulation of the impact.

4.16 I consider that all four forecasts mentioned above should be made. What is then judged by BR to be the most likely should form the basis of the Rail Plan for financial purposes. However, for other management purposes, manpower and other resource targets should be set using not the most likely, but the highest level of efficiency that senior management judge to be attainable given full achievement by the rest of management.

4.17 The range of forecasts would also be used as a basis for determining those events for which contingency plans should be prepared and for setting triggers which would cause particular contingency plans to be activated. I agree with colleagues that these plans should deal particularly with shortfalls on the revenue side.

- 4.18 A Rail Plan structured about the three elements noted above
- a most likely financial outturn developed as above mentioned
  - high achievement management targets
  - contingency plans, particularly on the business downside

will in my view be useful to the railway and conducive to improving the dialogue between the railway and the Department.

4.19 I endorse my colleagues' view that the Plan should be supported by action plans and the management responsible for implementation should understand the Plan. Formal support should however be obtained only for the first two years of the Plan, and should relate principally to high achievement targets for those particular matters that are controlled or largely influenced by management.

4.20 I also agree the importance of there being coincidence of fiscal and planning years. (CR para 10.18).

4.21 A gradualist approach to improved planning is commended by colleagues in CR para 12.9. This does not seem adequately to recognise the seriousness of the position within BR concerning forecasting and planning. The position is serious and the Board's approach requires thorough change; the deployment of better techniques would then surely follow the lead set by management.

4.22 In the next Chapter I stress the importance of the Department of Transport appointing the management team at Board level. That is for consideration in due course. In the meantime, I believe some "fire brigade" action is called for on planning. Changes cannot be implemented throughout the organisation overnight but the requisite effort towards improvement must have a high head of steam behind it and be stamped with the full authority of the Chairman and Chief Executive.

**Investment**

4.23 I am able to agree with most of what my colleagues say in their Chapter 8. I would like in particular to support what is said about giving greater thought to the timing of benefits from investment schemes and about the method of assessment when money is tight (CR para 8.19). Certainly BR's present methods need to be reviewed, and revised.

4.24 However the application of a better test will not itself be sufficient to alter the nature of investment expenditure. It is also necessary that investments with early returns should be developed for consideration. I refer in Chapter 5 to the custodial orientation of management within BR. This tends to lead to the

identification of investment possibilities of a long term kind. Specific action will be necessary by senior management to encourage the seeking out of projects of the type commended by my colleagues (CR para 8.21(b)) where efficiency gains dominate and rapid payback of investment is obtained. I consider that a task force for this purpose should be established with some staff from outside BR including perhaps secondees from other railways.

4.25 I should also comment on my colleagues' para 8.28 where they say that disinvestment is hardly ever considered as an alternative when the Board's secondary investment criterion is in force. The point which I think is intended, and which I support, is that the secondary criterion should be modified so that disinvestment options must formally be considered whenever there is reason to believe that the costs of continuation greatly exceed the revenue benefits.

### **Management Structure**

4.26 Planning is an important management function but plans are no better than the ability to implement them. It is because of this failing of previous corporate plans that the modified planning process has a strong emphasis on commitment from management at different levels.

4.27 Concurrently with the work on a new planning process, the Board has created the Sector Directors to inject a more businesslike approach into the management of the railway. My colleagues wholeheartedly commend the concept, and recognising the inherent problem of the three streams of command (region, function, sector), they propose that authority should rest with the sectors as with managing directors of subsidiary companies.

4.28 I too welcome the greater emphasis on the businesses that has resulted in the appointment of the Sector Directors. However, I place greater weight than my colleagues on the desirability of a clearer command structure. Failure to create that structure will in my view do a great deal more than deny the full advantage of the sector director concept (CR para 9.5). Let me explain.

4.29 The three streams of command create a three dimensional management matrix. At figure 4.1 I show a diagram closely based on BR's own presentation of the structure. In my opinion this structure of management is a sure recipe for uncertainty, low morale and less efficiency. In the short term the arrangement may have some galvanic effect as all changes are prone to: in the longer term it simply will not work.

4.30 I am doubtful whether a clearer command structure can be achieved as simply as my colleagues seem to think (CR para 9.5). The sectors share the infrastructure and they will be continually jostling for the best access to it and the least allocation of its costs. They may well share motive power and rolling stock. Ultimately someone has to decide the priorities between sectors. It is for those very cogent reasons that railways have general managers. Currently, these managers are inclined to trade-off between Sector Director's demands, whereas Sector Directors trade-off between Regional General Managers' requirements.

4.31 I believe therefore that a more unified direct and clear command structure needs to be the target. If that can be achieved by Sector Directors taking command (CR para 9.7) and having available sufficient resources in personnel etc, then improvements will result. If clear command responsibility by Sector Directors is not achieved, the arrangement would in practice revert to the alternative of a more traditional geographic management structure. That could also become satisfactory given a wholly committed business orientation by general managers. The present unclear position is risk prone and should be seen as only the shortest possible interim arrangement.

4.32 Whatever structure is adopted, I agree very much with my colleagues that the engineering functions need to be fully integrated into the business environment (CR para 9.6).

### **Management Information**

4.33 I wish to emphasise what my colleagues say in Chapter 9 about the need for better information collection and analysis and freer access to computing facilities. I believe it is a matter of urgency to commission the development of better systems.



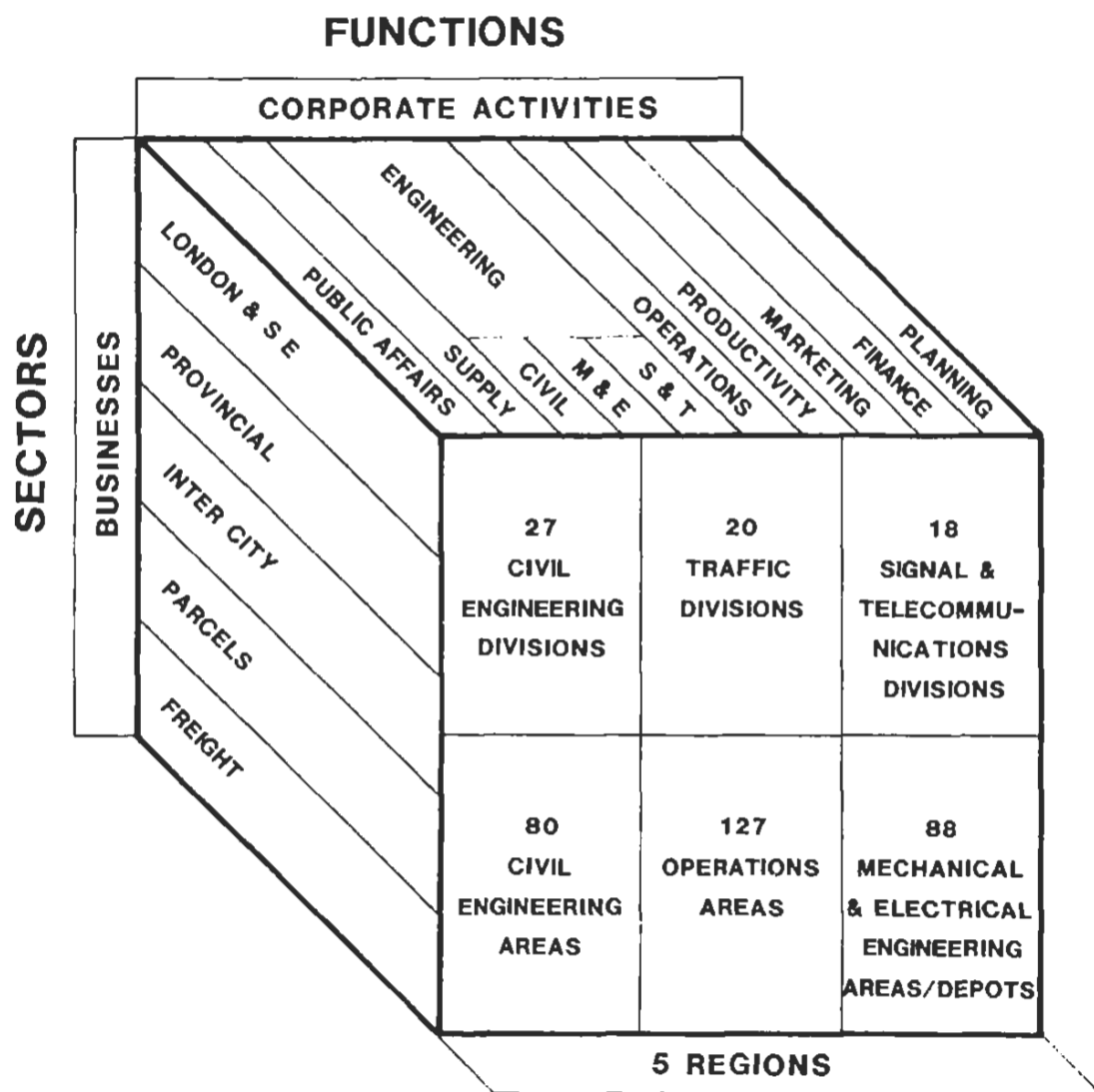


Figure 4.1 BR Matrix Organisation (based on BR diagram)

## 5. THE DEPARTMENT OF TRANSPORT'S OVERVIEW

5.01 The role of the Department may be characterised as being

- (i) to set policy objectives
- (ii) to appoint railway management at Board level
- (iii) to monitor performance
- (iv) to overview investment
- (v) to administer grants

The Department also houses the Chief Inspecting Officer, who inspects new railway and major new track and signalling layouts, and investigates accidents.

5.02 I agree with much of my colleagues' Chapter 10. There are however further important matters which should be considered.

### Specification of Objectives

5.03 I am on common ground with my colleagues in the view that the Department and the Board have rested for long enough upon the broad generality of the 1974 Direction. This is so broad as to sustain a multitude of interpretations. For example, although it seems generally to be accepted that the Direction has been adhered to, the 1982 passenger railway is different in some important respects from the 1974 railway. On the basis of colleagues' figures (CR Tables 2.2, 2.4, 2.6) one can see that train miles rose by 8 per cent from 1975 to 1981; and train speeds have risen appreciably on the non-electrified main lines.

5.04 The whole 1974 Direction, which I attach as Appendix B, is drafted so that the requirement of comparable service in no way prevents the discontinuation of service under Section 56 of the 1962 Transport Act. There is thus manifestly a good deal of scope for modifying services; and, in view of successive Ministers' policy objective to contain and reduce subsidy, it is unexpected that

- (i) the Department appears not to have indicated to the Board that it would entertain proposals for service reductions or closures where there were appreciable savings to be had; and
- (ii) the Board has not pressed the Department hard to support such reductions.

5.05 I support my colleagues' view that Government's objectives should be set out by the Department in a more tangible form than hitherto. However, I cannot share their view (CR para 2.25, 2.26(a)) that the objectives should have three defined components, namely for the quality of service, the level of fares and the level of financial support. For if this triangle of outturns is specified they can be achieved only at one particular level of efficiency. This is because fares determine revenue; quality of service and efficiency determine costs; and costs and revenue determine the level of support.

5.06 Such a restriction can be regarded as logical only if it is thought that the Department should be equipped to judge, better than the Board, how efficiently the business can be run. Such a degree of involvement, in effect supplanting the Board's judgment, is deprecated by my colleagues (CR para 10.8) and myself.

5.07 But the conclusion my colleagues fail to draw is that the department should define no more than two of the three specified outcomes and leave the other(s) to emerge. If this is not done, then the pursuit of efficiency becomes inextricably entangled with the pursuit of policy.

5.08 CR para 10.10 illustrates how this can occur even without clearly specified objectives. And in the case there in point, not only is efficiency being mixed up with policy, but the Department appears to be adopting a position which is not sustainable. Their argument is that grant should not be increased because there is scope for cost savings. But for this to bite, they would have had to show that enough savings were available and that they were available on time. This has not, to my knowledge, been done. Similarly it is not a material point that the PSO has been made no more exacting than formerly. The financial outturn relates to the network, the services and patronage, not to an historic PSO grant level.

5.09 I can well see that the Department is anxious to do what it can to ensure increased efficiency. But to rely mainly on the grant mechanism is apt to generate more heat than light. There is another and better way of promoting efficiency, as is touched on in CR 9.14(b).

## **The Board**

5.10 As I understand it, appointments to the Board are entirely in the gift of the Secretary of State as representative of the "shareholders". It appears however that the direct power of appointment is exercised only as to the Chairman and some non-executive members. For other appointments the advice of the Chairman appears generally to be acted upon.

5.11 In my experience, the desire to find better ways of doing things has to be instilled and commended in an organisation by its senior management. Our engineering consultants, commenting upon BR management's approach, distinguished a custodial approach and a business-oriented approach; and reported that the former was dominant in BR. It is not the approach which is most conducive to greater efficiency. This year however the Chief Executive of the railway, through appointing Sector Directors, has signalled a start on a change towards a business-orientation. Subject to what I have said in Chapter 4, I welcome this. It illustrates my theme concerning the role of Board Directors in setting the management pace.

5.12 What I urge is that the Department of Transport should recognise that the Board is the best key that it has for opening the door on a new style of management. It should therefore concentrate its thinking upon the selection of the right management team to sit on the Board. At the very least, the Department should choose the key officers such as the Chief Executive and the Board Member for Finance, as well as the Chairman, together with sufficient other Board members to ensure that the chosen team has control of the Board.

5.13 It is the normal function of the shareholders to choose their Directors, and it is to that important task that the Department should pay keen attention. I would expect that the monitoring of performance could then be undertaken much more at arm's length.

## **Grant Administration**

5.14 The administration of grant and the overviewing of investment are the two activities which bring the Board and the Department into closest contact since funding is a crucial matter for both parties. My colleagues appear to consider that conflict of opinion between the Board and the Department should be reduced as much as possible (CR para 10.19). I agree that continual serious conflict is likely to lead only to frustration, but I believe there are also dangers in there being too "cosy" a relationship. Constructive tension seems to me to be a better target to aim for.

5.15 My colleagues cite examples of the Department substituting their judgment of commercial matters for the Board's (CR para 10.8). They rightly deprecate this degree of involvement. I would go rather further. For whether or not its judgment happened to be right, I believe the Department has not judged aptly the thrust of its intervention. If it is not satisfied with the commercial judgment of the railway management then the remedy is to appoint a Board with a more businesslike approach: to try and do the Board's job for it denies the Board's responsibilities and, except in the very short term, may well make matters worse rather than better.

5.16 Another matter, which directly impinges on the provision of grant, is the allocation of costs between freight and passenger services. In the last sentence of their para 3.28, colleagues draw attention to a curious situation, namely that freight is being and has been undercharged for infrastructure costs.

5.17 I understand that the under-allocation to freight was flagged as long ago as 1975 and perhaps occasionally since then. It was thought that the new track category system would rectify matters: but although operational for several years for engineering purposes, the system has still not been made operational for accounting purposes. Something could certainly have been done without awaiting the revised computational arrangements attendant on 16 track categories. But nothing was done.<sup>1</sup>

## **Sector Policy**

5.18 An important matter concerning both policy objectives and the administration of grant concerns the sectors. It has been policy for some years, certainly since 1977 White Paper (Cmnd 6836), that Inter-City services should "pay their way".

5.19 The development of what constitutes a proper test of "paying their way" does not appear to have been subjected to progressive comparison either as to the test itself or as to the bundle of services to

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<sup>1</sup> I need on this point also to draw attention to a detail. Our engineering consultants have not estimated the effect that introducing the 16 category of tracks will have upon the calculation of freight costs. But on a different basis they estimate that freight is paying £30-£35 million a year too little. This is correctly reported in CR para 9.31 but not in CR para 3.28. The effect of the 16 category system has not been tested. However I am advised that a further four categories for very low speed lines may be introduced which might result in a lesser transfer than the £20-£25 million suggested by the railway (CR para 9.31).

be classified as Inter-City. For example, I understand there is no advice available as to how the current test (of covering direct costs and making a 5 per cent return on selected assets) compares in its results with the previous test (of making a total contribution worth 25 per cent of systemwide indirect costs). Nor have I seen the rationale of the present test satisfactorily explained.

5.20 Further, there have been various changes in the service constituting the Inter-City groups so that it is not possible to compare one year's results with another (CR para 2.5). For example, in Figure 5.1 I show the revenue trends for the passenger sectors in recent years and as projected in the current Rail Plan, all taken from my colleagues' report. The losses of revenue from the suspension of service in 1982 affected all parts of the business, but this does not reflect in the figures because of the transfer of services in 1982 from the Inter-City group to the other two groups.

5.21 I would have expected the Department, perhaps jointly with BR, to have detailed work carried out on alternative treatments of the Inter-City group of services. Such work would surely have been helpful to both parties in the dialogue between them. Currently there is confusion between Inter-City as a marketing concept and Inter-City as a no-subsidy entity.

5.22 In Figure 5.2 I consider the services as at present categorised by sector and show how they fare in terms of their revenues and direct operating costs. The results are based on the 1982 budget data base (similar results could be obtained by direct analysis of BR's PP&CCA data base).

5.23 This figure shows that the OPS sector consists almost entirely of services that fail to cover their direct costs. Inter-City and the L&SE sector are similar to one another in their spread of results ranging from very low coverage of costs up to almost threefold coverage. Inter-City is the smallest sector but still contains too many services with poor operating ratios to achieve a break-even result.

5.24 For the 1982 data base, the indirect and administrative costs allocated to Inter-City are rather greater than the direct costs. The average ratio of revenue to direct cost would need to be about 2.1 to cover all costs. This is shown in Figure 5.2 and this makes clear why there is a substantial overall deficit in the sector.

5.25 Colleagues have drawn attention to the present unsatisfactory position (CR para 2.5, 2.7, 2.13) and have set out as one of two alternatives the closing down of present Inter-City services that do not pay their way. I consider that the anomalous results to which they draw attention (ie of closing busy services while retaining minor lines) would render such a policy unsustainable.

5.26 It seems to me that if there is to be a defined part of the railway which is to be profitable as a matter of policy, then methods must be found to define formally the characteristics of such a part in a necessary and sufficient way. Profitability cannot be included in such a definition since, if it were, the tautology "Inter-City is not subsidised; that which is not subsidised is Inter-City" is likely to follow. I foresee considerable difficulty in finding an appropriate definition covering a part of the railway in a consistent way.

5.27 If an appropriate definition cannot be found, or if the result is deemed unsatisfactory, there would seem to be no sensible alternative but to recognise that the Inter-City sector requires grant, and to revise the 1977 Inter-City policy.

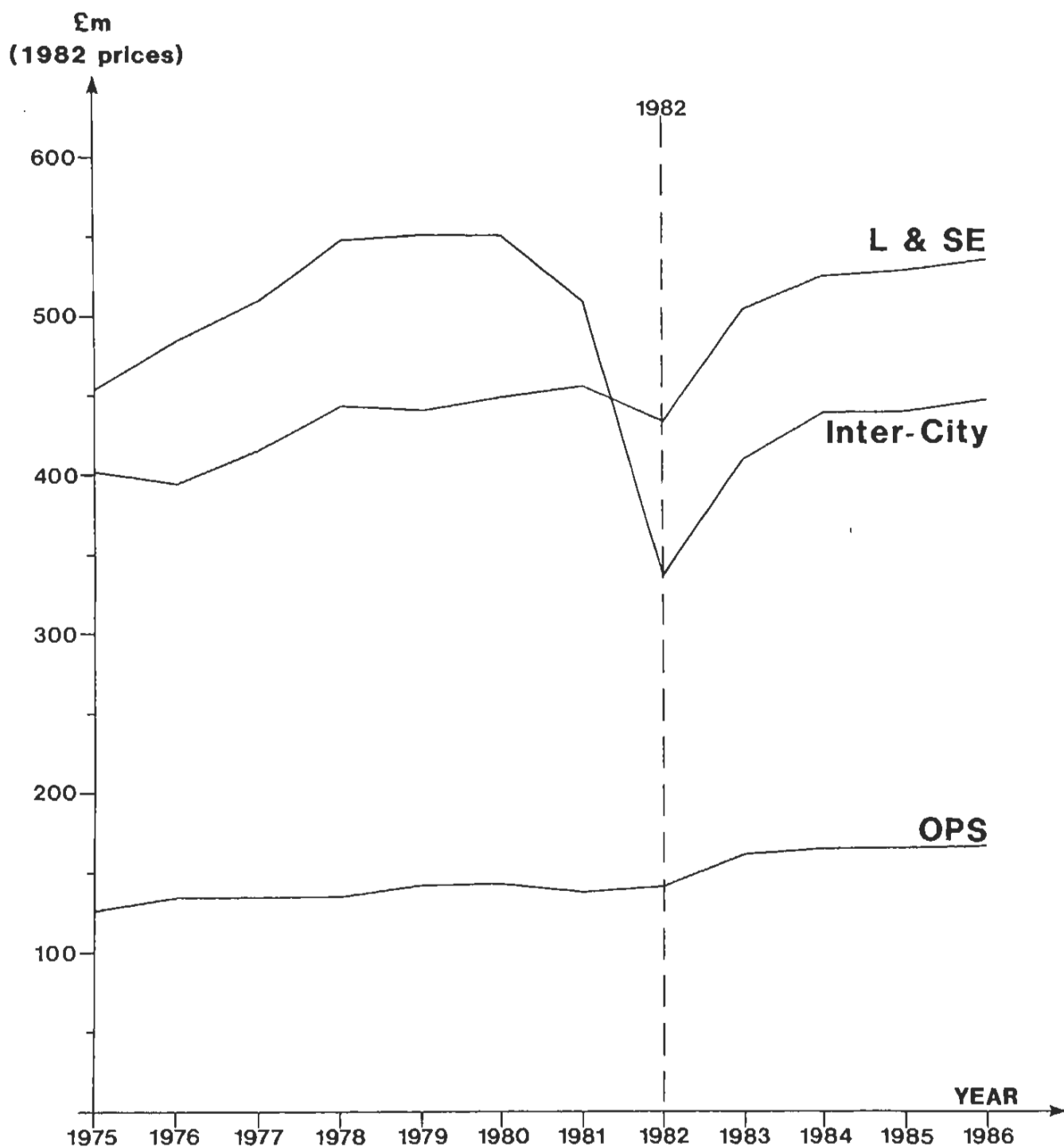
5.28 Should the future direction for the railway be toward a lesser network, the whole question of sectorisation would in any event need to be reviewed.

### Opening up the Debate

5.29 I concur with my colleagues view (CR para 10.15) that the Department should from time to time commission studies on major long term issues. I would add that the DTp should also ensure, in its appointment of Directors, that the Board make greater use of outside advice.

5.30 I agree with my colleagues' next view (CR para 10.15) that the Department should ensure that suitable professional expertise, particularly in engineering and operational research, is available to the Department to advise on the Board's progress. I would disagree however that one alternative is to have this solely within the Department.

5.31 This is not a point of principle concerning in-house resources. It arises because of my concern that the present "closeness" of the railway community militates against informed debate. It is important to extend professional involvement in railways outside the Department and BR.



**Figure 5.1 Passenger Revenue by Sector**

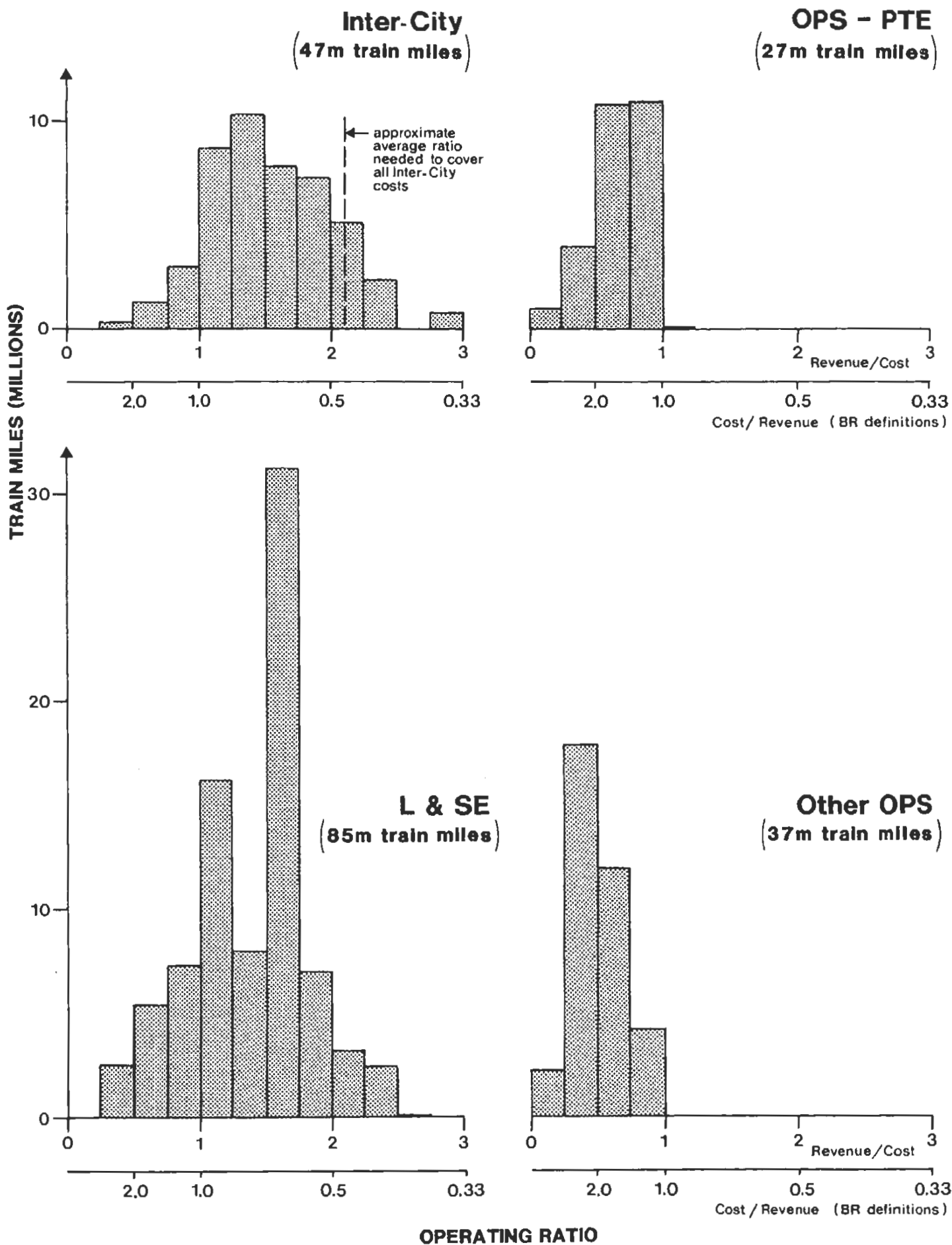


Figure 5.2 Train miles ranked by Operating Ratio in Sectors

5.32 There is widespread public interest in all aspects of the railway and its history. A wealth of magazines and books on these subjects is published. Paradoxically, however, specific issues of current importance to the operation of the railway appear to be the subject of less professional debate and public discussion than is now the case in eg matters affecting the construction and maintenance of highways. Just as the involvement of independent “outsiders” has improved knowledge and understanding in the highways’ field (for example, by testing the “received wisdom” of the Department at public inquiries), there would be benefit in widening the circle of informed debate on railway matters. The results could help Ministers and the Board assess the difficult choices they have to make.

5.33 Thus in my opinion the Department should promote greater public debate on railway matters on an informed basis. The absence of open adversarial testing of opinion inhibits both public understanding and the improvement of methods.

## 6. CONCLUSIONS

6.01 There is a variety of ways open to improve the financial position of the railways.

6.02 There is certainly room for greater efficiency and many avenues are open to the Board. Government cannot act directly to achieve that but can encourage it in three particular ways

- (i) by setting out more clearly the task required of the railway (a view shared with my colleagues)
- (ii) by exercising more fully its discretion to appoint the Board of British Railways
- (iii) by greater exposure of railway decisions to informed debate both within and outside professional transport circles.

6.03 For the present railway system a keen pursuit of efficiency measures is unlikely to result in an annual passenger deficit of less than £800 million-£900 million in the long term—1992. Investment levels would need to be significantly higher than today. In the short term, up to 1986, there is in my view, little or no likelihood of PSO requirement being contained to within the 1975 level (with SRA uplift) in real terms.

6.04 A second area of opportunity is available through the pricing of rail travel in London and the South East. There is little doubt that the gap between revenue and cost could be narrowed by raising fares in real terms. However, this would have effects on road congestion and possibly, in the longer term, on the role of London and Westminster as employment centres. These are matters not within the remit of the Committee and would require full study.

6.05 The third and greatest area of opportunity is in altering the level of services and the size of the railway network. The studies carried out show that as services and network are reduced costs fall faster than revenue. With sufficient reduction even a railway service which is commercially viable appears possible, albeit on only some 1,630 route miles and serving only the largest population centres. Lesser but substantial reductions in financial support are also achievable while continuing to serve the great majority of towns currently on the network.

6.06 In my submission, if a real impact on public financial support is to be aimed for, it is largely from consideration of this third area of opportunity that the Government should select the role it requires of the railway in the future. And thereafter the provision of public finance by Government, PSO and Investment, must be on a basis which is commensurate with that role.

6.07 As I have made clear above I am not uncritical of management and forward planning in BR. But the necessary change to a more businesslike approach has begun: if this is sustained and if the Government plays its part by defining with greater clarity the policy objectives, then the railway can be a vital organisation serving a useful role. I am struck by the dedication that our engineering consultants found so impressive among railway staff. With a clear brief from Government and a sharper command structure this dedication can be put to better service of the community.

6.08 The history of railways in Britain is not short of inquiries, whether by committees, commissions, departmental or inter-departmental groups. A fair question would be to consider why the present Committee and its work should lead to a much improved railway. Why is it different?

6.09 I had hoped that one of the reasons why it would lead to marked improvement would be that we would examine the railway from a quite fundamental standpoint: that we would recognise that whilst finance was our *raison d'être*, many issues we were considering were essentially transport issues. I did not see the Committee's work as an "efficiency audit", or as simply a search for economies within the status quo.

6.10 Readers will judge for themselves to what extent a fundamental appraisal has been the Committee's achievement. I believe more could have been achieved in that direction. Though I cannot concur with colleagues and have therefore been obliged to prepare this report, I trust both reports will furnish helpful material to assist you, and your colleagues in Government, in the onerous task of determining the future direction for the development of Britain's railway.



A. Goldstein  
22.12.82



DIRECTION IMPOSING THE PUBLIC SERVICE OBLIGATION

**The Railways Act 1974**

The Secretary of State for the Environment hereby gives the following direction to the British Railways Board in exercise of his powers under section 3(1) of the Railway Act 1974:

1. Subject to the provisions of paragraph 2 below, the British Railways Board shall, from 1 January 1975, operate their railway passenger system so as to provide a public service which is comparable generally with that provided by the Board at present.
2. The obligation imposed by this direction shall have effect subject to the provisions of section 3(4) of the said Act of 1974, and shall not extend to the operation, after the date on which the consent can be implemented, of any railway passenger service for the discontinuance of which the Secretary of State gives his consent under section 56 of the Transport Act 1962 after the date of this direction.

*Signed by authority of the Secretary of State.*  
19 December 1974.