



COMMISSION OF THE EUROPEAN COMMUNITIES

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COMMUNICATION FROM THE COMMISSION
TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

**ON THE IMPLEMENTATION AND IMPACT OF
DIRECTIVE 91/440/EEC ON THE DEVELOPMENT
OF THE COMMUNITY'S RAILWAYS**

AND ON ACCESS RIGHTS FOR RAIL FREIGHT

SUMMARY

1. Directive 91/440/EEC on the development of the Community's railways is the most important Community measure to improve the competitiveness of rail transport. Its main aims are to create railways independent of the State and managed on commercial lines and to begin the integration of the market for rail transport services. There have been calls for the Commission to report on the implementation and impact of the Directive to help discussion of further measures, and for that reason it presents this communication.
2. The first obligation of the Directive is to grant railways a status independent of the State and management independence. The report finds the provisions of the Directive have been implemented and considerable progress made in increasing the autonomy of railway management. However, while there are legitimate reasons for the public authorities to intervene in certain areas, they still restrict independence to an unjustified extent. Until their informal practices change, the aim of real autonomy will not be achieved. There are, nevertheless, wide differences between Member States in relations between the authorities and the railways.
3. Second, the Directive requires Member States at least to separate the accounts of transport services and infrastructure management, although they can go further and separate into distinct legal entities. The aim is to further efficient operation of two different activities, to make the use of aid transparent, to create a basis for infrastructure charges, and to ensure fair treatment of all railway undertakings when it comes to the utilisation of infrastructure. The communication finds the situation unsatisfactory in the case of the railways that remain integrated enterprises, with transport services and infrastructure management provided by the same entity. In the first place, it seems that only profit and loss accounts are separated and not balance sheets; this does not allow the degree of financial transparency required. In the second, integrated railways are still responsible for functions that can determine the entry of competitors into the market; this situation constitutes an abuse of dominant position.
4. Third, the Directive obliges Member States to reduce railway debt to a level that does not impede sound financial management and to improve railway finances. The communication finds that railway finances came under increasing pressure in the 1980's. Although Member States injected equity on a large scale, debt increased in absolute terms, leading to higher interest payments and hence operating costs. The situation varied greatly, however, from one railway to another. In the early 1990's many States began to restructure railway finances, often under a major reform of the sector. However, while balance sheets were strengthened, the burden of interest payments increased. The differences between Member States were again considerable. In 1995, the railways in five States faced serious debt problems, but since then four States have restructured railways finances, although the results do not yet show up in the available statistics. The Commission intends to report on railway debt again in three years time.

5. The fourth requirement of the Directive is to establish certain access rights to railway infrastructure for railway undertakings established in the Community. The communication finds that very few railway undertakings have exploited these rights, including in the Member States that implemented them several years ago. On the one hand this is because of high start-up costs and strong competition. On the other, the Community has not completed the framework for access; the Commission intends rapidly to propose guidelines for infrastructure charges and for capacity allocation, which should fill the main gaps. In addition it is necessary to ensure that all railways are treated fairly when seeking access. If integrated railways retain responsibility for activities like setting charges, allocating train paths, licensing and safety certification, they determine the conditions under which their competitors enter the market and do business. The Commission intends to make proposals to remove such conflicts of interest.
6. Besides, with the exception of combined transport, the access rights of the Directive are limited, particularly by the obligation to find a partner undertaking in another Member State to form an international grouping, when in practice the only partner is usually the national railway. The communication discusses how best to continue the opening of the market, but in a progressive way that avoids disruption in the spirit of the Commission's Communication on services of general interest in Europe (1996). Thus, the Commission is of the opinion that further market opening should be taken in steps and concentrate on the rail freight sector. As a first step, it would not disrupt the main business of the incumbent railways, if the Community were to open 5% of the freight market in each Member State immediately and to continue liberalisation by stages to reach 25% after ten years.
7. Employment in the railway sector has been in serious secular decline since the 1980s. It is difficult to attribute this directly to the Directive, not only because of the different causes but also because many Member States have only implemented it recently and little real competition has yet emerged for the incumbent railway undertakings. Nevertheless, the future of the industry and its ability to meet the challenges of adapting to the new conditions will depend on its modernisation but also on maintaining the employability and adaptability of the workforce. The Commission will continue to monitor employment trends in this critical sector.

I. INTRODUCTION

1. Directive 91/440/EEC¹ is the principal measure that the Community has taken to raise the competitiveness of rail transport. It is a first step in establishing railways independent of the state and managed on commercial lines and in creating an integrated and competitive market for rail transport services. Various Member States and interested parties have called on the Commission to report on the implementation and impact of the Directive in order to advance discussion of further measures, including those proposed in the Commission's white paper "A strategy for revitalising the Community's railways"² of 1996.
2. Among other things, Directive 91/440/EEC obliges Member States to help reduce the railways' debts and improve their finances; in its white paper, the Commission undertook to report on progress made. It then decided to integrate the report in this general communication on the implementation and impact of the Directive, in order to give an overall view of the situation.
3. The Directive covers four areas of policy:
 - the management independence of railway undertakings. (Articles 4 and 5)
 - the separation of infrastructure management and transport operations, at least in the accounts. (Article 6)
 - the reduction of debt and improvement of finances. (Article 9)
 - access rights to railway infrastructure. (Article 10)

This communication deals with each area, and also with the effects of the Directive on employment because of concern about the continuing fall in railway employment. The Directive leaves the Member States considerable scope for implementing measures in ways that fit their circumstances, so a central theme of this report is the differences between the solutions chosen by the Member States.

¹ Council Directive of 29 July 1991 on the development of the Community's railways (91/440/EEC). O.J. No. L237, 24.8.91.

² COM (96) 421 final, 30.7.1996.

4. The Commission has based the communication on two independent studies³ and on other material available on the implementation of the directive, but has come up against certain limits to the exercise. First, various Member States have combined implementation of the directive with a general reform of the rail sector. This means that it is difficult to disentangle the effects of the directive from those of other policies. Second, the time period is short. Member States were supposed to have transposed the Directive by 1st January 1993 but most were late in doing so, so shortening the period for judging results. Nevertheless the Commission has found it possible to draw valid conclusions for policy, which are presented at the end of this communication.

II. MANAGEMENT INDEPENDENCE

5. The Directive obliges Member States to give the railways independent status from the State, to allow them to work according to commercial principles adjusting their activities to the market, and to make them responsible for their business plans (Articles 4 and 5). All Member States have transposed the relevant articles of the directive by either setting up independent entities or, when they existed, by increasing their autonomy and transforming them into enterprises. In most Member States transport services are now run by publicly owned joint-stock companies, in France, Ireland and Spain by state enterprises with commercial status and in the United Kingdom by privately-owned companies. In the 1990's there has been a clear move towards enterprises with independence and responsibility for their commercial future.
6. The situation is more complex on the side of infrastructure management. Some Member States have maintained integrated companies, including both transport operations and infrastructure management; a majority has gone further, some creating separate entities which are usually public agencies or enterprises with limited commercial freedom and subject to close guidance by the state; and at least one presently integrated company will evolve in this direction. These organisations may have regulatory functions as well as that of managing assets. This implies that greater public intervention may be justified in infrastructure management than in transport operations and that Directive 91/440/EEC may need modification to reflect that difference.
7. While the Directive lays down rules on management independence, there remain wholly valid reasons for the public authorities to intervene in rail transport, which Community legislation allows. The first is to ensure the provision of public services that transport operators would not supply if looking only to their commercial interests. All Member States require public services, for example to reduce pollution and congestion caused by private cars, or to help disadvantaged social groups. Community legislation allows Member States to impose public service obligations on railway undertakings, as well to contractualise services, so long as they compensate correctly for the financial burden involved.

³ Prognos : Examination of the implementation and impact of Directive 91/440/EEC on the development of the Community's Railways. Study for the European Commission (DGVII) and the International Union of Railways (IUC); March 1998.

Mercer Management Consulting : Public contributions to Railway Finances 1996; Update and Supplement 1997. Prepared for DGVII, European Commission.

8. Although Member States are free to provide the services they consider in the public interest, the means by which they obtain these services can make a great difference to management independence. There is a difference between imposing public service obligations and negotiating contracts between the public authorities and the transport operator. Although many Member States now have contracts of some kind with railway undertakings, present rules do not require the use of contracts and are not sufficiently precise clearly to define the obligations and compensation to be negotiated. The Commission intends to propose in 1998 the revision of Community rules on public services in land transport, to generalise the use of contracts, to define better their content and to ensure that they are awarded fairly.

9. The second reason for public intervention is to develop railway infrastructure; indeed this is a requirement of Directive 91/440/EEC (Article 7). However, governments have often promoted infrastructure investments, for reasons of overall transport policy, which have been the main cause of the debt that railways accumulated until the 1990's. Servicing this debt reduces the resources available to management and limits its real autonomy. Since the early 1990's, many Member States have restructured finances, relieving the railways of debt and of debt service and taking over responsibility for financing infrastructure. This may lift the financial burden from operators of transport services, but may not change State influence on infrastructure management.

10. While these are legitimate forms of intervention, States still tend to limit managerial independence to an unjustified extent. For instance, they may heavily restrict a railway's area of commercial freedom, by treating all passenger transport as a public service and so subject to obligation or contract; or they may regulate all passenger fares, as several Member States do. They may also control investment decisions, and management appointments below the top layer and influence procurement decisions, none of which they need to do to protect their interests as shareholders. Conditions of employment are often more tightly regulated than in other sectors.

11. It follows that management independence is not just a matter of formal rules and structures, important as they are, but also of the informal practices of public authorities. Until this changes, the objective of management autonomy will not be achieved. The situation varies greatly between Member States; some allow real autonomy, others, while meeting the formal requirements of the directives, closely supervise their railways. The independent study on the implementation of the Directive gives this classification:

-the highest degree of management independence is probably found in Finland, Sweden and the United Kingdom, followed by Austria, Germany and the Netherlands.

-less autonomy is granted in Belgium, France, Luxembourg and Spain, where governments control long term aims and approve key decisions.

-railways appear to have least independence in Denmark, Greece, Ireland, Italy and Portugal, where governments intervene continually at different levels and in different ways.

The recent reforms in several Member States may well increase autonomy but it is too soon to assess their effects.

III. SEPARATION BETWEEN INFRASTRUCTURE MANAGEMENT AND TRANSPORT SERVICES

12. The Directive requires Member States to separate the accounts of transport services and of infrastructure management (Article 6). They can go further and create distinct divisions within an undertaking or separate entities altogether. Separation of accounts was intended to serve several purposes. One was to promote the efficient development and operation of two activities that were linked but different, particularly so far as commercial orientation and public purpose were concerned. Another was financial, to make aid more transparent, to clarify use of public funds, and to provide a basis for infrastructure charges that were fair and non-discriminatory.
13. While all Member States have taken certain measures to separate accounts, a majority have gone further and separated the two activities. This was to help achieve greater financial transparency at a time of growing pressure on public expenditure, adapt organisational structures to two different activities and deal with special situations in Member States like Germany and the United Kingdom. Other have maintained integrated railways because they considered this important for technical and safety reasons or to maintain national services and institutions.
14. To simplify, three different approaches have emerged. First, complete separation into two distinct legal entities. This was first done by Sweden and the United Kingdom, followed by Denmark, Finland, France, Portugal, and the Netherlands. The United Kingdom conceded infrastructure management to a privatised company, while the other States created public agencies. In the Netherlands, companies are responsible for infrastructure maintenance and development, capacity allocation and traffic control, which work more like public agencies. France and Finland have organised things in a different way, creating separate public bodies for financing and developing infrastructure, while conceding or contracting the actual management to the national railway undertaking or a related enterprise.
15. The second approach was to maintain an integrated enterprise but to form distinct business units within it, each with some autonomy and certain financial responsibilities. Austria, Germany, Italy and Spain restructured their national railway companies into business units several years ago, while Belgium has done so recently. Typically this went beyond a division into infrastructure management and transport operations, to a separation between freight, long and short distance passenger services, infrastructure, stations, real estate and so on. However there are great differences between these structures. Business units are organised in different ways, from divisions responsible for the whole process of planning, producing and marketing services, with their own personnel and assets, to units responsible for planning and market services but "buying" most of their inputs from other units and so having little control over production and costs. Their real autonomy varies greatly and will change over time; several states, like Germany and Italy intend to go further in separation.
16. The third option was to maintain a fully integrated railway with separate accounts. This was taken by Greece, Ireland and Luxembourg, which have much smaller railway networks than other Member States, though important flows of traffic pass through Luxembourg in transit.

17. Except for the railways that have been divided into separate entities, the separation of accounts has proved unsatisfactory. The accounts of an enterprise have several parts, and include at least a profit and loss account and a balance sheet; an enterprise has to present and have both audited. According to the Commission's study, although all Member States have transposed this requirement of the Directive, no integrated railway has prepared or published separate balance sheets. Moreover it appears that only the railways of Austria, Germany, Ireland and Spain, have prepared profit and loss accounts, which RENFE (Spain) alone has published. In Belgium, Denmark, Greece, Italy, Luxembourg and Portugal either separate accounts are not yet ready or no solid information is available on the situation. It should be recalled that the separation of accounts is the minimum degree of separation possible and that several Member States have managed to achieve complete separation of transport services and infrastructure management, since the implementation of the Directive.

18. The separation of accounts is very important, since a clear and full financial statement is essential for effective management of both transport operations and infrastructure management; although linked, they produce different services and differ in the extent to which they are commercially orientated or serve public purposes. It is also necessary to make transparent the use to which public support is put, as Member States provide public money to compensate for public services, balance exceptional social costs, support infrastructure, provide equity and fund operating deficits. Another reason for separating accounts is to create a solid foundation for infrastructure charges through clear identification of cost and of present revenues from infrastructure. Consequently, the Commission intends fully to clarify the legal situation, by amending Directive 91/440/EEC to require the preparation and publication of separate profit and loss account and balance sheets for transport service and infrastructure management.

IV. DEBT REDUCTION AND FINANCIAL IMPROVEMENT

19. The unsound state of railway finances became increasingly clear throughout the 1980's as debt rose and debt servicing became a burden on finances. If the railways were to be managed independently, operate in a commercial manner and face up to competition, their finances had to be put on a sound basis. The Directive therefore required Member States to help reduce debt to a level that did not impede sound financial management and to improve the financial situation of the railways. In its White Paper, "A strategy for revitalising the Community's railways"; the Commission undertook to report regularly on progress in reducing debt and in improving finances. This section deals with debt and debt service and the measures taken by Member States to tackle the debt problem, which was the focus of Article 9 of Directive 91/440/EEC. Of course railway finance has many other aspects, and governments support the railways in different ways.

Trends in the 1980's

20. Railway finances were under pressure in the 1980's for several reasons. Railways invested heavily in new assets in an attempt to make their product more attractive and stem losses in traffic. Revenue fell considerably, primarily because of a slump in freight revenue and yields. Although they cut costs, the reductions did not balance the fall in revenue, so that operating losses continued to be heavy. Reductions in government support of railways in many countries led to unfunded losses, which put further pressure on accounts.

21. There was a striking increase in capital employed and hence in asset intensity.⁴ This resulted principally from infrastructure investment, especially in high-speed lines, from investment in new rolling stock, largely for high-speed and long distance passenger services, and from the automation of various processes. Over the decade total capital employed by Community railways increased in real terms from ECU 142 billion to ECU 189 billion, a rise of 33%, while asset intensity grew from 1.9 to 2.9.
22. It is sometimes thought that the increase in investment in the 1980's was funded primarily through debt. In fact the main source of capital was government contributions, which appeared on balance sheets as equity. Consequently, although total liabilities and both equity and debt increased significantly in absolute terms, the proportion of total liabilities represented by debt decreased considerably. While from 1980 to 1990 total capital employed rose to 189 billion, as said, debt increased from 97 to 108 billion (+11%) and equity from 45 to 81 billion (+80%). This meant a considerable decline in the ratio of debt to equity, from 2.15 in 1980 to 1.34 in 1990⁵. (See table 1 for information on each railway).
23. Higher levels of debt in absolute terms, nevertheless, led to increased interest payments; these added to operating costs and absorbed a greater proportion of income, even when interest rates were related to government stock rather than at full commercial level. On average interest payments increased as a proportion of operating costs from 7% in 1980 to 11% in 1990, and were well above that level in the case of three railways. This represented a serious and unsustainable burden on enterprises that were already in financial difficulties for other reasons.
24. These general trends concealed large differences in financial performance. Certain railways maintained historically low ratios of debt to equity and of debt service to operating costs throughout the period, in particular DSB (Denmark), VR (Finland), ÖBB (Austria) and NS (Netherlands). The fact that the State took much responsibility for investment in the network contributed to this. In contrast debt : equity ratios were high and increased in the case of CIE (Ireland), CP (Portugal), DB (Germany), RENFE (Spain) and to the greatest extent SNCF (France). Debt service was a particular burden on the finances of CP, FS, RENFE and the SNCF. The debt : equity ratios of BR (Great Britain), FS (Italy) and SNCB (Belgium) fell markedly, while those of CH (Greece) and SJ/BV (Sweden) rose substantially from a low level.

Trends since 1990

25. In the early 1990's governments started to restructure railway finances, often as part of a major reform of the sector. Significant improvements were made in the ratio of debt to equity on the balance sheet, but the burden of debt service on costs and income continued to grow. Between 1990 and 1995, total capital employed increased from ECU 189 billion to 199 billion (+5%), but debt fell from 108 to 101 billion (-6%) (after reaching 130 billion in 1993), while equity was raised from 81 to 97 billion (+20%). Overall, the debt : equity ratio fell from 1.34 to 1.04, around unity, and debt service decreased slightly relative to operating costs, from 11% in 1990 to 10% in 1995 because of financial restructuring in Germany. (See table 2 for information on each railway). Since 1995, the last year for which statistics were available, several governments have reorganised railway finances, so further improvements in the debt situation should show up in later figures.

⁴ Asset intensity is the number of units of capital required to support one unit of operating costs.

⁵ The debt : equity ratio is that between debt (both short and long term) and equity. Equity is expressed as 1, so a debt equity ratio above 1 shows that there is more debt than equity in the balance sheet.

26. Again, the differences in performance were great. The reduction in debt between 1990 and 1995 was largely the result of action in three countries, Germany, Italy and the Netherlands. In Germany, the government wrote down assets and transferred debt to the Federal Railway Fund (Bundeseisenbahnvermögen) as part of general reorganisation of the sector, transforming the accounts. The merger of DB and DR (Deutsche Reichsbahn) makes comparison difficult but in 1994 the new DB AG emerged with a healthy balance sheet that showed a debt : equity ratio of 0.53, while debt service fell to an insignificant level. In Italy, the financial restructuring of FS in 1994 had a major impact on the level of debt and of debt service. FS' debt has been transferred to the State, which is paying the interest and is eventually to repay the debt itself. After growing from ECU 31 billion in 1990 to ECU 42 billion in 1994, debt fell to 30 billion in 1995, and there was a sharp fall in the debt: equity ratio from 1.1 in 1990 and 1.04 in 1994, to 0.69 in 1995. Debt service payments, however, increased from 21% of operating costs in 1990 to no less than 29% in 1995 but are expected to fall sharply under the debt reduction programme. In the Netherlands, the State has funded a large proportion of capital requirements through equity injections and, as part of a general organisation, removed infrastructure from NS' balance sheet to take direct responsibility. The debt equity : ratio fell from 0.58 in 1990 to 0.42 in 1995, while capital employed was reduced by about one half.

27. In some other Member States, railway debt increased heavily between 1990 and 1995, particularly in Greece, Portugal, Spain, Sweden and France. In Greece, CH's debt jumped by 125%, and the debt : equity ratio rose from 0.58 to 0.93, near to the Community average. Debt service grew from 9 to 15% of operating costs. These trends are mainly the consequence of a large, unfunded operating deficit (71% of operating costs in 1995). The financial situation of CP (Portugal) deteriorated more than of any other railway, from an already difficult position, largely because of a growing unfunded operating deficit. Since 1990, accumulated losses have almost eliminated equity, resulting in a debt: equity ratio of 12.86 in 1995; over the period debt service virtually doubled as a proportion of operating costs, from 16% in 1990 to 30% in 1995. RENFE (Spain) has had a high level of debt for years, much incurred in the 1970's and 1980's, although it has not increased greatly over the last decade, the government having injected equity on a substantial scale. The debt : equity ratio is now high but fairly stable at 2.46. Interest payments on the other hand have risen from 19% of operating costs in 1990 to 32% in 1995, the highest level in the Community. The present contract between RENFE and the State provides for the latter to repay some debt and to cover part of interest payments. It remains to be seen how far this will improve RENFE's financial situation.

28. In Sweden, substantial investment in rolling stock and in infrastructure has led to a large increase in SJ/BV's assets and debts in the 1980 and 1990's. The debt, equity ratio rose from the low level of 0.49 in 1980 to 1.56 in 1990, followed by a very large rise to 3.35 in 1995. Debt service also increased several times over, but only reached 7% of operating costs in 1995. The State has recently changed the financial arrangements of both organisations, so their situation will need to be reassessed at a later stage. Finally, in France the SNCF invested heavily in the 1980's and 1990's, largely to build the high-speed network. Much of this investment was financed by debt (and unfunded operating deficits between 1992 and 1995 added to debt). The SNCF's debt increased by 30% between 1990 and 1995, after growing by 65% between 1980 and 1990. A restructuring in 1991 reduced debt by 21%, but it then rapidly increased and in 1995 was 29% above the 1990 level. Because of equity injections the debt : equity ratio in fact fell from 4.82 in 1990 to 3.46, but this is still a very high level and to be compared with 1.22 in 1980. Debt service remained at around 13% of operating costs, in 1995 as in 1990. In 1996,

however, the State restructured the finances of the SNCF, transferring 70% of debt to the Réseau Ferré de France.

An assessment

29. The financial situation of five railways, CH (Greece), CP (Portugal), RENFE (Spain), SJ/BV (Sweden) and SNCF (France) was serious in 1995; since then, States have acted to relieve debt and improve finances, but it is too soon to judge whether debt has been reduced to a manageable level. CP (Portugal) remains in grave financial difficulty. Taking the Community as a whole however, the debt situation has improved, and the debt : equity ratio declined to around unity in 1995. Debt service remains a serious burden on finances for enterprises that lose money or are marginally viable.
30. This leads to the question of whether present levels of debt represent "sound financial management", the term of Directive 91/440/EEC. It is possible to give some indications but not a definite answer. First, the figures for railway debt have to be seen in the context of normal commercial practice. It is usual for enterprises, whether privately or publicly owned, to take on debt to finance investment (fixed assets and working capital), because under certain conditions this is more advantageous than raising equity. Asset intensive companies typically bear a higher level of debt than companies with less assets, because the assets can be used as security. While comparisons are of limited value, it is nevertheless interesting that in 1997 the North American railways had a debt : equity ratio of 0.72, lower than the Community average in 1995 but similar to that of a number of European railways.
31. The second consideration is whether an investment produces an adequate return and whether the investing company can afford to service the debt. Many railways have not been subject to normal commercial disciplines as regards investment, at any rate not until recently, and much investment since 1980 is considered to give a low or negative return. Moreover five railways faced in 1995 interest payments above 10% of operating costs : CH (Greece), CP (Portugal), FS (Italy), RENFE (Spain) and SNCF (France). For three, debt service had reached around 30% of operating costs (CP, FS and RENFE), clearly not a sustainable situation.
32. Overall, the debt position of the Community's railways improved considerably between 1980 and 1995. Further improvements are to be expected when later figures become available. Overall only the position of CP (Portugal) still appears critical. This does not mean, however, that the financial situation of the railways can be taken as totally sound. Debt service remains a heavy burden for some because of large scale investments in the years before. In addition there continues to be a serious problem of operating deficits, mainly caused by stagnant revenue, inadequate gains in productivity and hence excessive costs, and possibly insufficient compensation for public services rendered. At the policy level, the Community has not yet created a framework for railway finances that clearly defines the responsibilities of the State and of the railways. Many aspects remain obscure, including the real use to which public support is put. Once the Community has established a full set of rules for financial relations between the State and the railway, it should become clearer whether railway finances are on a sound footing.

V. ACCESS RIGHTS

33. The Directive established access rights for groupings of railway undertakings to operate international services between the Member States where the constituent enterprises are established and for railways undertakings to operate international combined transport services throughout the Community. All Member States have transposed these rights with the exception of Italy and Luxembourg (as of 1st March 1998), and the Commission is taking infraction proceedings against them under Article 169 of the Treaty. In 1995 the Community adopted two complementary Directives intended to lay down the conditions of access, one on the licensing of railway undertakings⁶ and the other on the allocation of infrastructure capacity and the charging of infrastructure fees⁷. These should have been transposed by 27th June 1997 but as of 1st March 1998 only four Member States have notified transposal and the Commission is conducting infraction proceedings against the others. This means that even the limited framework provided by these two directives is not yet in place; and there is wide agreement that it does not adequately define conditions of access.
34. So far, only two groupings offer services under the access rights of Directive 91/440/EEC, while another plans to do so in the immediate future, according to the information available to the Commission. Of course, in recent years the national railways have developed cooperative ventures to launch new international services and various freight ventures include transport undertakings other than the national railways. In several Member States, new entrants have won the right to operate regional or local services. However these developments are not based on the access rights of the Directive; indeed domestic services are completely outside the scope of this part of the Directive. This means that so far the national railways face almost no real competition and can behave like monopolies. This is particularly serious in the freight market, as there is an urgent need for rail services that can compete with road transport and win back some of the market share that has been lost. One consequence of the lack of new entrants is weak pressure to charge prices that are as competitive as possible; experience has shown that competition with other transport modes has not forced the railways to offer the lowest prices and the best quality service of which they are capable. This lack of incentive is well illustrated by a recent example of an international service run by two railways. One, seeking to make the service more attractive, reduced its price unilaterally by 30%. Instead of responding positively to this attempt to widen the market, the other increased its price by 60%. If access to the market were effectively open, it would not have been able to behave in this manner.
35. Why have so few railway undertakings used the access rights of Directive 91/440/EEC; indeed why are there so few new entrants in general? Here it is important to distinguish between the economics of railway operation and barriers to the market of a regulatory nature. A new entrant to the railway sector faces high start-up costs, having to buy or lease traction and rolling stock, find experienced management and qualified train crews and maintenance personnel, conduct negotiations with infrastructure managers and obtain the different authorisations needed. All this is to enter a market where competition is fierce, from other often dominant railway undertakings and other modes of transport. It is therefore natural that there has not been a flood of new entrants. The national railways do not face these obstacles, but clearly prefer to cooperate with their counterparts in other Member States rather than to compete with them on what they

⁶ Council Directive 95/18/EC of 19 June 1995 on the licensing of railway undertakings. O.J. L143, 22/6/95.

⁷ Council Directive 95/19/EC of 19 June 1995 on the allocation of railway infrastructure capacity and the charging of infrastructure fees. O.J. L143, 22/6/95

consider their territory; indeed they see such cooperation as the way to improve international rail transport.

36. As for conditions of access, there is a wide agreement that the framework is not complete (leaving aside the question of late implementation of existing directives). It should set the main conditions for access to infrastructure, for charging and capacity allocation in particular. It should guarantee that all railway undertakings are treated fairly and without discrimination and prevent possible abuse of dominant position by the integrated railways, that both supply transport services and manage infrastructure, in conformity with the Community's competition rules. It should also respond to a perception by potential new entrants that the integrated railways do not and will not treat them fairly, when it comes to allocating capacity, setting charges and, in some cases, regulating safety.
37. In fact the integrated railways face a conflict of interest. On the one hand, through the management of infrastructure, they determine the conditions under which potential competitors enter the market and conduct their business. In exercising this responsibility, they should treat equitably and without discrimination all transport services, that is their own and those operated by their competitors. On the other, every part of an integrated railway, including its infrastructure manager, is naturally supposed to advance the interests of the enterprise as a whole. It therefore has an incentive to favour its own transport operations over those of a competitor, in the ways mentioned. The study on the implementation of Directive 91/440/EEC found that fear of unfair treatment was widespread and a major reason for not considering entry to the market.
38. Directive 95/19/EC lays down general principles for infrastructure charges but these are too loose to be an adequate basis for setting charges. Indeed there remain fundamental differences between national approaches to charging and no consensus yet on how charges should reflect costs or take account of intermodal competition. Also the lack of precise Community rules has made it difficult for some Member States to develop charging systems. So far, only Austria, Denmark, Finland, France, Germany, Netherlands⁸, Sweden and the United Kingdom have explicit charging systems. While the creation of a charging system is certainly a step forward, wide differences remain between the national systems and these usually do not take sufficient account of competition from other modes of transport. Moreover in certain Member States charges are structured in such a way as to disadvantage small operators, and new entrants tend to operate on a small scale. For example, Austria and France apply two part tariffs with high fixed charges, which may reflect their costs of infrastructure management but not the economics of transporting relatively small quantities by rail; in Germany discounts are given for train - kilometres operated and duration of the order. Such practices favour incumbent railway undertakings and deter new entrants, and lead to lower quantities being carried by rail. There is also the question of whether they are compatible with the Community's competition rules.
39. The way train paths are allocated is also crucial to a new entrant. The process needs to be transparent and fair to all railway undertakings, to respond rapidly to demand and to make best use of capacity; there have to be clear procedures for resolving problems of scarce capacity. In addition it should be implemented by an organisation independent of dominant suppliers of rail transport services, as there is a conflict of interest and risk of unfair treatment if capacity allocation is done by an infrastructure manager that also operates transport services. At present there is an independent allocation body only in Denmark, Netherlands, Sweden and the United

⁸ The Netherlands has set a zero charge until 2000, except for the Freeways.

Kingdom, although apparently other Member States are planning to establish them. In two Member States, according to the information available, capacity is reserved for the national railway, although Directive 91/440/EEC does not limit access rights in such a way. Another distinct issue is whether the right to book and purchase train paths should remain reserved to railway undertakings, that is undertakings that ensure traction, or extended to other undertakings. There is no obvious reason to restrict this right, particularly as other operators may carry some of the financial risk for the provision of a service. It must be emphasised that this is different from the right of access to railway infrastructure, that is the right to provide rail transport services. Because of the expertise needed to operate trains efficiently and with a high degree of safety, this must continue to be reserved to railway undertakings. The Commission intends to propose guidelines on infrastructure charges and on capacity allocation in the immediate future.

40. The right regulatory arrangements contribute to fair competition in other ways. For example, to prevent safety certification becoming a barrier to entry, there is a need for clear rules, whether at national or Community level, and for independent bodies to certify conformity. Information about the characteristics of infrastructure should be equally available to all operators and not withheld on the grounds of commercial sensitivity. Procedures for licensing should be wholly independent of all undertakings supplying rail transport services. Facilities essential for the operation of transport services should be made available without discrimination to railway undertakings. Some facilities, that are not infrastructure, are at present only provided by the incumbent railways, because of the monopoly they have had for a long period of time, for example freight terminals, stabling facilities, maintenance workshops and training schools. The national railways clearly dominate the supply of these services, but this should not be a barrier to entry. These are issues that the Commission will consider at a later stage.
41. Finally the access rights of Directive 91/440/EEC are limited and conditional which reduces their attraction and helps explain their small effect on the ground. Under the Directive, except when offering international combined transport services, a railway undertaking established in one Member State has to find a partner established in the Member State to which it intends to operate services, and form an international grouping with it. In practice the only possible partner may be the national railway. This may consider it against its interest to compete against another national railway through an international grouping, because it could lead to competition on its own home market and because it would go against a long tradition of cooperation with other railways. Consequently the condition of forming an international grouping is likely to deter new entrants and is perceived as a serious obstacle to entering the market.
42. The Directive creates access rights for operating international not for domestic services. This distinction ignores the realities of the market, particularly for wagon load freight, which matters enormously, as the majority of international rail freight is hauled in wagon load quantities. Very often a wagon is moved within a Member State, for instance from the loading point to a marshalling yard, before being joined to an international train; or it may make a domestic movement after the international journey, or both. It follows that a railway undertaking, when exploiting the access rights of the Directive, must rely on the incumbent railway for the domestic legs of the operation. It cannot provide a point to point service, as the incumbent can, nor compete on service quality and price over the whole route. Consequently, the limitation of the access rights to international services artificially divides and distorts the market and deters new operators from competing.

43. The current arrangements may also hamper the development of cross border traffic, for which there is a large potential as many centres of population and of economic activity lie within, say, 100 kilometres from a frontier. When traffic originates close to the border of a Member State, the first part of the journey is carried out by a railway undertaking established in that State. On arrival at the border, the train would then be handed over to a railway undertaking established in the second Member State. However, because the distance to the frontier in the first Member State is short, the charge for the haul on that leg would be disproportionately high, as in general the charge per kilometre falls as the length of the trip increases. The high charge for the first stage to the border tends to discourage railway undertakings from offering cross border services or leads them to charge a high price, so restricting demand. The present set up may distort the supply of transport services in other ways. For instance, it is in the interest of each railway undertaking to ensure that it moves as much traffic as possible itself, in order to receive the largest proportion of overall revenues. The requirement to form an international grouping means there is little an individual railway undertaking can do to influence such decisions and offer a more direct service at lower cost. There are numerous cases of traffic being carried by road, when there is potential for a competitive rail service, because one operator was not allowed to supply the whole service from origin to destination or, more generally to design the best product for the market.

VI. EMPLOYMENT EFFECTS

44. The newly signed Treaty, in its Employment Title, states that *"a high level of employment shall be taken into consideration in the formulation and implementation of Community policies and activities."* (Article 127 § 2) The Amsterdam European Council decided to make the provisions relating to the Employment Title immediately effective and the Extraordinary Luxembourg European Council agreed upon an overall strategy which includes "the harnessing of all Community policies in support of employment in accordance with the Treaty." The Commission, in its Communication on Growth and Employment in the Stability-Orientated Framework of EMU, has subsequently dealt extensively with the employment challenge, thus effectively mainstreaming employment in its treatment of macroeconomic issues. Policies relating to the functioning of the single market, sectoral policies and labour market reforms are to incorporate the same employment concerns.

45. Employment in European railways has been declining continuously since 1980 when it stood at 1.668.000. The work force fell by 21% (to 1.320.000) between 1980 and 1990 with almost all Member States experiencing declines during this period, and with the U.K. and Sweden showing the largest drops (-44% each), followed by Ireland (-35%), Belgium (-31%), Spain (-30%), and Finland (-30%). The decline intensified from 1990 to 1996 with an overall fall of 31% (to around 907.000). The heaviest falls were in Germany (-47%), Portugal (-41%), Italy (-38%), the U.K. (-30%), Finland (-26%), Spain (-25%) and Denmark (-24%); employment in Sweden recorded an increase over the period (+6%).

46. Railway undertakings and railway trade unions are concerned about the effects of Directive 91/440/EEC on employment on the railways. This is easy to understand as employment has already dropped heavily, from 1.668.000 in 1980 to around 967.000 in 1995, and 907.000 in 1996. It is sometimes argued that the Directive has caused employment to drop in two ways: by requiring management of railways on commercial lines and by creating competition for the established operators from new entrants that require less staff to do the same job.

47. The reasons for the decline in railway employment would however seem to lie in a multitude of factors: rises in productivity as new techniques were being deployed, stagnant demand for rail transport as competition from other modes grew stronger, and pressure on public funds available to compensate for public services, meet operating losses and maintain higher levels of employment than needed for efficient operation within the new overall competitive environment. It is necessary to distinguish these factors contributing to the decline in employment from effects directly linked to Directive 91/440/EEC.
48. Probably the best way to assess the impact of Directive 91/440/EEC is to see whether the decline in employment began before its implementation, or whether it accelerated when the Directive was put into effect. In other words, was there a break in trends when the Directive was introduced? The answer would give some indication of the impact of the Directive but would not be definitive, because it is necessary to assume that other factors do not change greatly. Table 4 gives changes in employment in the fifteen national railways of the Community over different periods of time. It shows both the average annual decrease in employment (the absolute numbers) and the percentage change over each period of time.
49. The table makes it clear that employment was already falling heavily in the 1980's, long before the adoption of the Directive. Decline accelerated in the early 1990's as the cut in employment in Deutsche Reichsbahn began; excluding DR, the quantity of job losses was similar in the 1980's and in the early 1990's. However, to trace the impact of the Directive more precisely, trends should be compared before and after the implementation of the Directive. It should have been transposed by 1993, but most Member States were late. However a number had done so by 1994, so this is an appropriate date to take; still it gives a very short time series and various Member States had not yet implemented the Directive by that date. The table shows a steeper decline in employment after 1994; the higher numbers leaving the industry between 1994 and 1996, compared with those in the preceding three years, are largely accounted for by the reduction in DBAG's employment following the merger of DB and DR. Leaving aside DBAG, employment fell by 32.000 per annum between 1990 and 1994 and by 34.000 per annum between 1994 and 1996, compared to 31.000 in the late 1980's. Job reductions were particularly serious in FS and in BR prior to privatisation.
50. As cost and debt pressures are nevertheless expected to continue to force rationalisation within the industry for some years to come, it is essential to assess the employment effects according to the different situations in the different Member States. Equally, it is important for the change towards running the EU railways on a more commercial basis to be assessed, as far as employment is concerned, not only in quantitative but also in qualitative terms (job profiles, educational levels etc.).
51. If it is too early and complex to identify an employment impact directly attributable to the Directive 91/440/EEC, it is accepted that the long term employment prospects in the sector will ultimately depend on its modernisation and its competitive position. The know-how, skills and adaptability of its workforce can greatly contribute to a market orientation of the sector. The Commission will in this respect continue to encourage discussion of appropriate policy measures to improve the adaptability and employability of workers affected by the secular employment decline whether caused by long term productivity trends or by specific factors such as changes in ownership and management structure. By the same token the Commission will continue to invite

reflection on staff training needs and human resource investment requirements arising from the structural changes in the sector.

52. In conclusion, it seems that the decline in employment began long before the implementation of Directive 91/440/EEC, which so far has had no clear effect on long term trends. It is possible, however, that in future the Directive will have an impact, particularly if new entrants began to exploit access rights on a significant scale. To make a fair assessment, it would be necessary to balance the reduction in employment in the incumbent railways caused by competition against the employment created by the arrival of new entrants and the expansion of the market if competitiveness improves. At this stage it is worth repeating a point made in the Commission's white paper "A strategy for revitalising the Community's railways" :..... "only a dramatic rise in performance will guarantee the long-term future of rail transport and employment. The aim of Community policy, as explained in this white paper, is to bring about such a change. Failure to act will inevitably cause further deterioration in the position of the railways on the transport market, and could jeopardise their presence in major segments. Vigorous action to restore competitiveness is the only way to stable employment".

VII. POLICY CONCLUSIONS

Debt reduction and financial improvement

53. The railways' debt situation has improved substantially since 1990, as Member States have reduced debt and restructured finances, but this does not mean that the situation is yet satisfactory. The Commission intends closely to follow trends and to report again in three years time on the debt situation of the railways. More generally, the Community needs a clear framework for railway finances. Later this year the Commission intends to revise the rules on public services and on State aid for land transport, and so provide a solid basis for structuring railway finances.

Infrastructure : framework conditions

54. The communication shows that Directive 91/440/EEC does not ensure the degree of separation needed in order to achieve efficient management of the two activities, provide a basis for infrastructure charges and ensure transparency about flows of public money. The Commission therefore plans to propose the modification of Directive 91/440/EEC to require the separation both of profit and loss accounts and of balance sheets between infrastructure management and transport services.

55. The Community has not fully defined the conditions of access to the market. There is a wide consensus, that includes railway undertakings, that the Community must establish more precise rules on charges and on capacity allocation, in order to ensure efficient use of infrastructure and fair treatment of all railway undertakings. The Commission intends to present in the near future a package of measures concerning the utilisation of infrastructure. This would include guidelines on infrastructure charges and guidelines on the allocation of infrastructure capacity.

56. There is a risk that new entrants will not receive fair treatment from infrastructure managers, when these are a part of an integrated railway undertaking that also operates transport services. Infrastructure managers will have an incentive to advance the interests of the whole undertaking including its transport service division. This could lead them to favouring their own operations over those of competitors, when it comes to setting charges, allocating train paths, or licensing

and certifying safety when this is their responsibility. The Commission intends to propose measures to remove such conflicts of interest in its infrastructure package. Safety certification could be a barrier to entry, if clear rules are not set and if conformity is not certified by independent bodies. At a later stage the Commission will consider this and other potential obstacles to entering the market.

Access to infrastructure : wider rights

57. The Commission believes that extending the access rights created by Directive 91/440/EEC would valuably build on the progress already achieved. The communication suggests that advancing beyond the access rights created by Directive 91/440/EEC, and in particular removing the requirement to form an international grouping, would enormously enhance the rights' effectiveness. It is vital to continue opening access to railway infrastructure, especially for freight transport which has been losing market share for decades. Opening access would allow new enterprises to enter the market offering new and better services; although their operations would remain marginal in scale for a long time because of high start-up costs, new entrants would identify fresh business opportunities and stimulate the incumbents to perform better.

58. In 1995 the Commission proposed opening access for the operation of international passenger services and for all freight transport, domestic and international⁹. While there was wide support for liberalisation, particularly from the users of rail transport, the Commission's proposal was criticised on two grounds : for introducing liberalisation immediately not progressively and for lacking the accompanying measures needed to define the conditions of access. The European Parliament took this view in its resolution¹⁰ on the white paper "A strategy for revitalising the Community's railways" :

"E. whereas rail liberalisation should, as with maritime and air transport and telecommunications, proceed in stages in conjunction with the parallel implementation of the necessary accompanying measures, although this should not mean that the ultimate objective of extending free market rules to rail freight and the international transport of passengers by rail should be unnecessarily slowed down".

4...."takes the view that liberalisation should be progressive, beginning with the liberalisation of international freight transport and followed by domestic freight transport and international passenger transport".

"7. Takes the view that the Commission should submit proposals in order, firstly, to give railway undertakings the right of free access to railway infrastructure on the basis of an amendment to Article 10(2) of the Directive 91/440/EEC for the operation of international freight transport and, secondly, in order to facilitate the simultaneous elaboration and implementation of accompanying measures.....".

⁹ Communication from the Commission on the development of the Community's railways, COM(95)337 final 19.7.95.

¹⁰ Resolution on the Commission's white paper "A strategy for revitalising the community's railways" and the Commission communication on the trans-European freeways. A4-O412/97, 13.1.98.

59. The Commission recognises the need to phase market opening, beginning with the freight sector, and accepts that there is a strong case for progressivity, in the spirit of the Commission's Communication on services of general interest in Europe¹¹. This would give incumbent railway undertakings time to adjust to an open market, after a long period of monopoly, and provide the stability needed for the long term investments usual in the railway sector. Moreover it would reflect the economics of rail transport : because of high start-up costs and economies of scale, existing operators will most probably continue to dominate the freight market for the foreseeable future. This is what is happening in the more open markets. Competitors to the incumbent in recently liberalised railway markets such as Germany, Sweden, the Netherlands and the United Kingdom have significantly less than 5% of the freight market. These markets have also recently seen significant expansion in total rail freight operations. This suggests that market opening tends to expand the market rather than to take business away from the incumbents. The Commission also accepts the second point emphasised by the Parliament, the importance of accompanying measures, and believes that the proposals it intends to make in 1998 will fill the main gaps in the framework.
60. A possible approach would be to open the freight market, without distinguishing between the domestic and international sectors because domestic operations often feed international services and every link in the chain must be strengthened, but to do so partially and by stages. This might be achieved by at least opening, 5% of the freight market immediately, progressing by equal steps to 15% after five years and then continuing to reach 25% after ten years; and at the half way point there could be a review mechanism to check that the levels were still appropriate. In more precise terms, the Community would progressively extend the rights of access to railway infrastructure for the operation of freight services by railway undertakings other than the incumbent operator in each Member State, so that an increasing proportion of infrastructure capacity is made available to these undertakings.
61. One way of implementing this would be to measure capacity by the freight train kilometres run in each Member State during the preceding year. Capacity would be allocated between different railway undertakings on a fair and non-discriminatory basis, following the principles and processes laid down by the Directive 95/19 on the allocation of railway infrastructure capacity and the charging of infrastructure fees, and following the guidelines that the Commission intends to propose. Capacity not claimed by a new entrant would be offered to the incumbent operator for the timetabling period in question. Such an approach would stimulate a rapid improvement in performance, while avoiding disruption of the market and allowing experience to be gained. The Commission intends to consult widely on this idea before deciding on a proposal.

¹¹ COM (96)443, 11.9.96.

Table 1

RAILWAY DEBT 1980 TO 1990

	Debt: equity ratio ¹		Debt service (%) ²	
	1980	1990	1980	1990
BR (Great Britain)	2.18	0.93	3	3
CFL (Luxembourg)	0.92	0.91	3	4
CH (Greece)	0.19	0.58	3	9
CIE (Ireland)	1.91	2.14	3	7
CP (Portugal)	2.12	2.28	30	16
DB (Germany)	1.58	1.90	8	10
DSB (Denmark)	0.12	0.15	2	2
FS (Italy)	3.31	1.10	11	21
NS (Netherlands)	0.77	0.58	2	8
ÖBB (Austria)	0.15	0.14	2	2
RENFE (Spain)	1.14	2.26	7	19
SJ/BV (Sweden)	0.49	1.56	1	3
SNCB (Belgium)	1.39	0.67	5	8
SNCF (France)	1.22	4.82	6	13
VR (Finland)	0.02	0.15	2	0
TOTAL	2.15	1.34	7	11

Source: Mercer Management Consulting.

¹ Ratio of debt (long and short term) to equity; equity = 1.

² Interest payments as percentage of operating costs.

Table 2

RAILWAY DEBT 1990 TO 1995

	Debt: equity ratio ¹		Debt service (% ²)	
	1990	1995	1990	1995
BR (Great Britain)	0.93	2.52	3	3
CFL (Luxembourg)	0.91	0.76	4	8
CH (Greece)	0.58	0.93	9	15
CIE (Ireland)	2.14	1.72	7	3
CP (Portugal)	2.28	12.86	16	30
DB (Germany)	1.90	0.54	10	1
DSB (Denmark)	0.15	0.06	2	0
FS (Italy)	1.10	0.69	21	29
NS (Netherlands)	0.58	0.42	8	1
ÖBB (Austria)	0.14	0.51	2	4
RENFE (Spain)	2.26	2.46	19	32
SJ/BV (Sweden)	1.56	3.35	3	7
SNCB (Belgium)	0.67	1.00	8	6
SNCF (France)	4.82	3.46	13	13
VR (Finland)	0.15	0.26	0	2
TOTAL	1.34	1.04	11	10

Source: Mercer Management Consulting.

¹ Ratio of debt (long and short term) to equity; equity = 1.

² Interest payments as percentage of operating costs.

Table 3

RAILWAY DEBT EVOLUTION 1980 TO 1995

	Change (%) 1980-1990	Change (%) 1990-1995
BR (Great Britain)	-14	121
CFL (Luxembourg)	12	25
CH (Greece)	149	125
CIE (Ireland)	104	9
CP (Portugal)	-24	129
DB (Germany)	12	-72
DSB (Denmark)	-31	-52
FS (Italy)	-16	-
NS (Netherlands)	16	-35
ÖBB (Austria)	20	152
RENFE (Spain)	52	27
SJ/BV (Sweden)	297	41
SNCB (Belgium)	-14	39
SNCF (France)	10	37
VR (Finland)	485	91
TOTAL	11	6

Source: Mercer Management Consulting.

Table 4

EMPLOYMENT CHANGE 1980-1996

	1980-1985	1985-1990	1990-1994	1994-1996	1994-1996 excl. DB
Average annual decrease (thousands)	31	41	70	69	34
Percentage change over period	-9	-13	-21	-13	-10

N.B. Including former Deutsche Reichsbahn.

EMPLOYMENT LEVELS 1980-1994
(thousands)

	1980	1985	1990	1993	1994	1995	1996
All Member States	1.450	1.284	1.082	985	1.034	967	907
plus Deutsche Reichsbahn	1.688	1.531	1.320	1.123	-	-	-

Source : Union Internationale des Chemins de Fer; Mercer Management Consulting.

Table 4a

EMPLOYMENT BY RAILWAY 1980 - 1996

	Employment (1000s)			Change (%)	
	1980	1990	1996	1980 - 1990	1990 - 1996
BR (Great Britain)	241.9	135.3	94.6 ¹	- 44	- 30
CFL (Luxembourg)	4.2	3.5	3.2	- 17	- 9
CH (Greece)	12.1	13.3	11.7	+ 9	- 12
CIE (Ireland)	18.1	11.8	11.0	- 35	- 7
CP (Portugal)	24.7	22.1	13.0	- 10	- 41
DB (Germany) ²	566.9	482.3	256.7	- 15	- 47
DSB (Denmark)	22.1	20.4	15.6	- 8	- 24
FS (Italy)	220.7	200.4	123.4	- 9	- 38
NS (Netherlands)	26.9	26.2	24.0	- 3	- 8
ÖBB (Austria)	72.5	66.9	57.0	- 8	- 15
RENFE (Spain)	71.5	49.7	37.4	- 30	- 25
SJ/BV (Sweden)	37.5	20.8	22.0	- 44	- + 6
SNCB (Belgium)	66.7	45.2	41.4	- 31	- 9
SNCF (France)	254.4	202.1	177.9	- 21	- 12
VR (Finland)	28.7	20.2	14.9	- 30	- 26
TOTAL	1668	1320	907	- 21	- 31

Sources: Union Internationale des Chemins de Fer, Eurostat

¹ U.K. Government estimate² Including Deutsche Reichsbahn

Table 5

BASIC INDICATORS 1980-1995

Traffic levels				
	1980	1985	1990	1995
Passenger-kilometres (billion)	237	238	253	263
Tonne-kilometres (billion)	232	220	215	222
Traffic units (billion)	469	457	468	484

Productivity				
	1980	1985	1990	1995
Traffic units per employee (000)	323	356	432	498
Operating costs/ 1000 traffic units	160	155	137	134

Table 5 (continued)

INCOME STATEMENT
(1995 ECU; millions)

	1988	1985	1990	1995
Total operating costs	75,167	70,439	63,952	65,002
Financial and exceptional costs (net)	3,601	6,245	8,001	3,585
TOTAL COSTS	78,768	76,684	71,953	68,587
Total operating income (without government support)	43,720	39,411	38,619	43,821
Government support (operations + infrastructure¹)	27,152	31,140	28,537	20,089
TOTAL INCOME	70,872	70,551	67,156	63,910
NET RESULT	-7,896	-6,133	-4,797	4,677
Government support as percentage total costs	34%	40%	40%	29%
Staff costs as percentage total operating costs	64%	62%	62%	50%

Source: Mercer Management Consulting.

¹ Infrastructure support excluding capital injections.

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